



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Health Sciences
School of Health Care Sciences
Department of Nursing Science

GUIDELINES TO MANAGE PERINATAL DEPRESSION IN NAMIBIA

by

SAARA KERTHU HATUPOPI

Submitted in fulfilment of the requirements for the degree

Doctor of Philosophy

in

Nursing Science

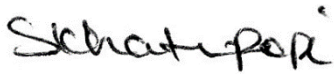
Supervisor: Prof M Yazbek

Co-supervisor: Prof A van der Wath

DECLARATION

Student Number: 20814624

I, Saara Kerthu Hatupopi, hereby declare that **Guidelines to manage perinatal depression in Namibia** is my own work, that it has not been submitted for any degree or examination to any other university, and that all the sources I have used have been indicated and acknowledged by complete references.



Signature

09-November-2023

Date

DEDICATION

I dedicate this study to

My two beautiful mothers who left us too soon:
Rachel Shipo, my biological mother, and Saara Ndapandula Puleinge, my second mother
after whom I am named.

I am sure if both were here today; they would be the most excited of all.

All women who suffer from perinatal depression in silence.

My message is:

It's not something people brought on themselves.

It's OK to not be OK, and it's OK to talk about it.

Mental illness is nothing to be ashamed of, but stigma and bias shame us all.

ABSTRACT

Background: Perinatal depression is a serious mental health disorder and public health concern, which can have disabling effects among women during the perinatal period. Perinatal depressive disorders contribute to between 5% and 20% of the disease burden of women during the perinatal period globally, and 11.9% of women suffering from perinatal depression are from low- and middle-income countries, including Namibia. Perinatal mental health guidelines are still lacking in the majority of low- and middle-income countries. Although Namibia has perinatal guidelines, the guidelines do not include perinatal mental health. This study was conducted in Windhoek, which is the capital city of Namibia and is situated in the Khomas region, one of the 14 regions in the country.

Aim: The study aimed to develop guidelines to manage perinatal depression in Namibia. The developed guidelines may provide a systematic and uniform method for early detection and management of perinatal depression.

Design: The researcher used a multi-method research design, the constructivist paradigm, and Kinser and Lyon's (2014) conceptual framework of stress vulnerability, depression, and health outcomes in the study.

Methods: The study was conducted in three phases. Phase 1 explored and described the experiences and the needs of women with perinatal depression. Explored and described the healthcare providers' experiences of working with women with perinatal depression and its management. Data was collected by means of semi-structured interviews, using an interview guide based on the study objectives and informed by the conceptual framework.

Phase 2 focused on a systematic literature review of guidelines used to manage perinatal depression globally. The researcher selected the Centre of Perinatal Excellence (COPE) 2017 *Effective mental health care in the perinatal period: Australian clinical practice guidelines* for adaptation to the Namibian context. The guidelines were developed to accommodate the Aboriginal and Torres Strait Islander women in Australia, who often confronted mental health problems, cultural disconnect, and multiple stressors in the form of poverty or poor housing, child removal, trauma, abuse, and loss. The researcher believed that the context of this population had similar characteristics with most low- and middle-income countries, including Namibia.

Phase 3 involved drafting, refining, and reaching consensus on the guidelines to manage perinatal depression in Namibia. The researcher based the guidelines on the findings of Phases 1 and 2 and followed the steps of *AGREE II: Advancing guideline development, reporting and evaluation in health*

care. The guidelines were refined by a panel of experts in a nominal group technique according to seven criteria, namely scope, purpose, stakeholder involvement, validity, reliability, clarity and applicability. Based on the comments and recommendations of the expert panel, the researcher reformulated the guidelines to manage perinatal depression, and consensus was reached.

Conclusion: The findings revealed the needs of women with perinatal depression, namely support needs and health care needs. Support needs included social needs and health care support. Health care needs included creating awareness about perinatal depression, sensitizing the community and family members, screening for perinatal depression, and a need for privacy, confidentiality and follow-up visits. The women used spiritual practices, distraction, self-reliance and resilience, and social and emotional support as methods to cope with perinatal depression. The healthcare providers revealed that the following barriers prevented them from assessing and managing perinatal depression: difficulty recognizing signs and symptoms of perinatal depression, lack of guidelines and health service approach to maternal mental health, cultural influences and, lack of community awareness, and a shortage of healthcare providers. The researcher integrated the findings to develop guidelines to manage perinatal depression to benefit women with perinatal depression in Namibia.

Key words: depression; perinatal depression; perinatal period; perinatal guidelines

ACKNOWLEDGEMENTS

My thanks and gratitude first of all to God, my Father and Creator, without Who neither I nor this study would have been conceived. I thank Him for His faithfulness and for the ability and understanding to persevere.

There is an African saying *Omunhu omunhu molwa ovanhu vakwao*, which means “a person is a person because of other people”. I therefore wish to thank the following people without whom this study would not have been possible:

Prof Mariatha Yazbek, my supervisor, for her patience, experience, generous support, stimulating thinking, unfailing encouragement and for everything she taught me.

Prof Annatjie van der Wath, my co-supervisor, for her experience, generous support, sharing and encouragement, inspiration, and for not allowing me to give up.

The University of Pretoria, Postgraduate Department, for permission to conduct the study and bursary, which lifted the financial burden from my shoulders and enabled me to study.

Dr Emma Nghitanwa, for seeing the potential in me and her advice and encouragement

Timotheus my husband, for his patience, understanding, love and support - and all the cups of coffee.

Shoopala, my son, for confidently taking care of the technical aspects of the study – may this motivate you to always dream big.

Nakakuwa Fillipine for her support, readiness, and willingness to listen and help, which played a pivotal role in my progress.

The participant patients for their courage, strength and humility in sharing their stories and time.

The healthcare providers, for their experience, caring and suggestions, which enriched the study.

The expert panel, for their professional concern, professional advice and input.

My friends, colleagues, and fellow students, for their support and random moments of chatting that were motivating and promoted resilience.

lauma Cooper, for professionally and critically editing the manuscript – you made it more readable.

TABLE OF CONTENTS

DECLARATION.....	II
DEDICATION	III
ABSTRACT	IV
TABLE OF CONTENTS.....	VII
1.1 Introduction	1
1.2 Background.....	2
1.3 Problem statement.....	5
1.4 Purpose and objectives	6
1.5 Research questions	7
1.6 Significance of the study.....	7
1.6.1 Policy and practice.....	7
1.6.2 Nursing education	8
1.6.3 Research.....	8
1.7 Research paradigm	8
1.8 Research design.....	8
1.9 Research methodology.....	9
1.10 Definition of key terms	10
1.11 Ethical considerations	12
1.11.1 Permission	12
1.11.2 Informed consent.....	12
1.11.3 Beneficence	12

1.11.4 Justice.....	13
1.11.5 Respect for human dignity	13
1.12 Outline of the study	13
1.13 Conclusion	14
2.1 Introduction	15
2.2 Conceptual framework.....	15
2.2.1 Conceptual framework of stress vulnerability, depression, and health outcomes	17
2.2.2 Stress and vulnerability.....	17
2.2.3 Depression.....	18
2.2.4 Health outcomes.....	19
2.2.5 Rationale for selecting the conceptual framework.	19
2.2.6 Application of the conceptual framework in the study.....	20
2.2.7 Examples of context in which the conceptual framework was successfully applied.....	21
2.3 Paradigm and philosophical assumptions.....	22
2.3.1 Ontology.....	23
2.3.2 Epistemology	23
2.3.3 Methodology	24
2.4 Context of the study	24
2.5 Research design.....	25
2.5.1 Qualitative	25
2.5.2 Exploratory.....	26

2.5.3 Descriptive	26
2.5.4 Contextual	27
2.6 Research methodology	27
2.6.1 Phase 1: The experiences and needs of women with perinatal depression in Namibia	28
2.6.1.1 Participant recruitment.....	28
2.6.1.2 Population	30
2.6.1.3 Sampling and sample	30
2.6.1.5 Data collection	31
2.6.1.8 Data analysis	35
2.6.2 Phase 1: Objective 2 – Explore and describe healthcare providers’ experiences of perinatal depression.....	37
2.6.2.1 Population	37
2.6.2.2 Sampling and sample	37
2.6.2.3 Data collection	37
2.6.2.4 Data analysis	38
2. 6.3 Phase 2: Conduct a systematic review of current global guidelines to manage perinatal depression.....	38
2.6.3.1 Sampling	38
2.6.3.2. Data collection	38
2.6.3.3 Review process	39
2.6.3.4 Quality assessment	39
2.6.3.5 Data analysis	39

2.6.4	Phase 3 Development of guidelines to manage perinatal depression	40
2.6.4.1	Methods	40
2.6.4.2	Setting	40
2.6.4.3	Population	40
2.6.4.4	Sampling and sample	40
2.6.4.5.	Pilot study of NGT interview guide	41
2.6.4.6.	Data collection	41
2.6.4.7	Preparation for the nominal group technique (NGT)	41
2.6.4.8	Data analysis	43
2.6.5	Integration of findings of phases 1, 2 and 3	44
2.6.6	Methodology for guideline development	46
2.6.6.1	Overview of structure and content of AGREE II	46
2.6.6.2	Refinement of the guidelines	47
2.6.6.3	Population	48
2.6.6.4	Sampling	48
2.6.6.5	Data collection	48
2.6.6.6	Data analysis	49
2.6.6.7	Modification of the guidelines based on the experts' responses	50
2.6.7	Trustworthiness	50
2.6.7.1	Credibility	50
2.6.7.2	Dependability	51
2.6.7.3	Confirmability	52

2.6.7.4	Transferability	52
2.6.7.5	Authenticity	52
2.7	Conclusion	53
3.1	Introduction	54
3.2	Explore and describe the experiences and needs of women with perinatal depression in Namibia.	54
3.2.1	Participants' demographic profile	54
3.2.2	Theme 1: Awareness of depression.....	55
3.2.2.1	Manifestations of perinatal depression.....	55
3.2.2.2	Conceptualisations of perinatal depression	56
3.2.2.3	Suicidal ideations	57
3.2.3	Theme 2: Effects of depression on daily living activities.....	57
3.2.3.1	Difficulty to perform daily tasks.....	57
3.2.3.2	Social isolation	58
3.2.3.3	Feelings of disappointment.....	59
3.2.3.4	Effects on the family	59
3.2.4	Theme 3: Multidimensional causes of perinatal depression.....	60
3.2.4.1	Financial struggles	60
3.2.4.2	Unemployment and poverty	60
3.2.4.3	Lack of social and emotional support	61
3.2.4.4	Gender-based violence	62
3.2.4.5	Paternity denial and rejection	62

3.2.4.6	Issues of adolescent pregnant women.....	63
3.2.4.7	Unplanned or unwanted pregnancy	63
3.2.4.8	The effects of being HIV-positive during pregnancy	64
3.2.5	Theme 4: Factors contributing to or exacerbating perinatal depression	65
3.2.5.1	Emotional instability	65
3.2.5.2	Fear of losing the current pregnancy	65
3.2.5.3	Fear of being judged or stigmatised by society.	66
3.2.5.4	Chronic illness	67
3.2.5.5	Dwelling on thoughts	67
3.2.6	Theme 5: Interpersonal factors that have a negative or positive influence on perinatal depression.....	68
3.2.6.1	Living in a toxic or abusive relationship.....	68
3.2.5.2	Positive experiences.....	69
3.2.7	Theme 6: Coping mechanisms used by women with perinatal depression	69
3.2.7.1	Spiritual coping	69
3.2.7.2	Distraction	70
3.2.7.3	Self-reliance and resilience	70
3.2.7.4	Social and emotional support	71
3.2.8	Theme 7: Support needs of women with perinatal depression.....	71
3.2.8.1	Social needs	71
3.2.8.2	Healthcare support	72
3.2.9	Theme 8: Healthcare needs of women with perinatal depression.....	73

3.2.9.1	Creating awareness about depression.....	73
3.2.9.2	Screening for perinatal depression	74
3.2.9.3	Pharmacological interventions	75
3.2.9.4	Need for privacy and confidentiality	75
3.2.9.5	Follow-up visits	76
3.3	Explore and describe healthcare providers' experiences of working with women with perinatal depression in Namibia.	77
3.3.1	Participants' sociodemographic profile.....	77
3.3.2	Theme 1: Understanding of perinatal depression.....	78
3.3.2.1	Signs and symptoms of perinatal depression	78
3.3.2.2	Difference between perinatal depression and puerperal psychosis.....	79
3.3.3	Theme 2: Biopsychosocial factors causing perinatal depression.....	79
3.3.3.1	Biological factors.....	80
3.3.3.2	Social factors	80
3.3.3.3	Psychological factors	80
3.3.4	Theme 3: Consequences of undetected and untreated perinatal depression	81
3.3.4.1	Suicide or harming others.....	81
3.3.4.2	Infanticide and baby abandoning	82
3.3.4.3	Miscarriages, premature births or intra-uterine deaths.....	82
3.3.4.4	Lack of self-care and care of baby	83
3.3.4.5	Family discord.....	83
3.3.4.6	Poor milk production	83

3.3.4.7	Chronic illness	84
3.3.5	Theme 4: Barriers preventing assessment of perinatal depression	84
3.3.6.1	Difficulty recognizing signs and symptoms of perinatal depression.	84
3.3.5.2	Lack of guidelines and screening tools	85
3.3.6.3	Cultural influences and lack of community awareness about perinatal depression	86
3.3.6.4	Shortage of healthcare providers	87
3.3.5.5	Perinatal mental health not considered part of perinatal care.	88
3.3.7	Theme 5: Interventions to assess maternal mental health	89
3.3.7.1	Timing of optimal screening	89
3.3.7.2	Provide psychosocial interventions	89
3.3.7.3	Pharmacological intervention	90
3.3.8	Theme 6: Integration of perinatal mental health into the primary health care setting	90
3.3.8.1	Include a brief screening tool in the perinatal records translated into five local languages.....	91
3.3.8.2	Provide adequate resources	91
3.3.8.3	Create awareness in the community.....	92
3.3.8.4	Outline clear referral pathways.....	93
3.3.9	Theme 7: Acceptability and feasibility of interventions utility.....	93
3.3.9.1	Feasibility and acceptability of integration of mental health screening and psychosocial care into perinatal care	93
3.3.9.2	Training and supervision	94

3.4	Conclusion	95
CHAPTER 4 PHASE 1: DISCUSSION AND INTEGRATION OF THE QUALITATIVE FINDINGS		
		96
4.1	Introduction	96
4.2.1	Participants' demographic profile	96
4.2.1	Theme 1: Awareness of depression.....	97
4.2.2.1	Manifestations of perinatal depression.....	97
4.2.2.2	Conceptualisations of perinatal depression	98
4.2.2.3	Suicidal ideations	98
4.2.3	Theme 2: Effects of depression on daily living activities.....	99
4.2.3.1	Difficulty to perform daily tasks.....	100
4.2.3.2	Social isolation	100
4.2.3.3	Feelings of disappointment.....	101
4.2.3.4	Effects on the family	101
4.2.4	Theme 3: Multidimensional causes of perinatal depression	101
4.2.4.1	Financial struggles	102
4.2.4.2	Unemployment and poverty	102
4.2.4.3	Lack of social and emotional support	103
4.2.4.4	Gender-based violence	103
4.2.4.5	Paternity denial and rejection	104
3.2.4.6	Issues of adolescent pregnant women.....	105
4.2.4.7	Unplanned or unwanted pregnancy	105

4.2.4.8	The effects of being HIV-positive during pregnancy	106
4.2.5	Theme 4: Factors contributing to or exacerbating perinatal depression	107
4.2.5.1	Emotional instability	107
4.2.5.2	Fear of losing the current pregnancy	108
4.2.5.3	Fear of being judged or stigmatised by society	109
4.2.5.4	Chronic illness	109
4.2.5.5	Dwelling on thoughts	111
4.2.6	Theme 5: Interpersonal factors that have a negative or positive influence on perinatal depression.....	111
4.2.6.1	Living in a toxic or abusive relationship.....	112
4.2.5.2	Positive experiences.....	112
4.2.7	Theme 6: Coping mechanisms used by women with perinatal depression	112
4.2.7.1	Spiritual coping	113
4.2.7.2	Distraction	113
4.2.7.3	Self-reliance and resilience	113
4.2.7.4	Social and emotional support	114
4.2.8	Theme 7: support needs of women with perinatal depression	114
4.2.8.1	Social needs	114
4.2.8.2	Health care support	115
4.2.9	Theme 8: Health care needs of women with perinatal depression.....	115
4.2.9.1	Create awareness about depression	115
4.2.9.2	Screening for perinatal depression	117

4.2.9.3	Pharmacological interventions	118
4.2.9.4	Need for privacy and confidentiality	119
3.2.9.5	Follow-up visits	119
4.3	Explore and describe healthcare providers' experiences of working with women with perinatal depression in Namibia.	120
4.3.2	Theme 1: Understanding of perinatal depression	120
4.3.2.1	Difference between perinatal depression and puerperal psychosis.....	120
4.3.3	Theme 2: Consequences of undetected and untreated perinatal depression	121
4.3.3.1	Suicide or harming others.....	121
4.3.3.2	Infanticide and baby abandoning	122
4.3.3.3	Miscarriages, premature births or intra-uterine deaths	122
4.3.3.4	Lack of self-care and care of baby	123
3.3.4.5	Family discord.....	123
3.3.4.6	Poor milk production	124
4.3.4	Theme 3: Barriers preventing assessment of perinatal depression	124
4.3.4.1	Difficulty recognizing signs and symptoms of perinatal depression.	124
4.3.6.2	Lack of guidelines and screening tools	125
4.3.6.3	Cultural influences and lack of community awareness about perinatal depression	126
4.3.6.4	Shortage of healthcare providers	126
4.3.5.5	Perinatal mental health not considered part of perinatal care.	127
4.3.7	Theme 4: Interventions to assess maternal mental health	127
4.3.7.1	Timing of optimal screening	128

4.3.7.2	Provide psychosocial interventions	128
4.3.8	Theme 5: Integration of perinatal mental health into the primary health care setting	129
4.3.8.1	Include a brief screening tool in the perinatal records translated into five local languages	130
4.3.8.2	Provide adequate resources	131
4.3.8.3	Outline clear referral pathways.....	132
4.3.9	Theme 6: Acceptability and feasibility of interventions utility.....	132
4.3.9.1	Feasibility and acceptability of integration of mental health screening and psychosocial care into perinatal care	133
4.3.9.2	Training and supervision	134
4.3.10	Integration of qualitative findings	134
4.3.10.1	Evidence to develop guidelines to manage perinatal depression	138
4.4	Conclusion	139
5.1	Introduction	141
5.2	Background.....	141
5.3	Target population	143
5.4	Sampling and sample	143
5.4.1	Review questions	144
5.4.2	Inclusion and exclusion criteria	144
5.5	Data collection	144
5.6	Results	145
5.6.1	Guidelines included in the study.....	146

5.6.2	Characteristics of selected guidelines	146
5.7	Discussion of specifics in guidelines	149
5.7.1	Recommended time for screening	149
5.7.2	Screening instruments recommended by selected guidelines	149
5.7.2.1	Edinburgh Postnatal Depression Scale.....	149
5.7.2.2	Antenatal risk questionnaire	150
5.7.3	Interventions suggested by guidelines	151
5.7	Quality assessment of the guidelines	151
5.7.1	Domain 1: Scope of purpose	152
5.7.2	Domain 2: Stakeholder involvement	153
5.7.3	Domain 3: Rigour of development.....	153
5.7.4	Domain 4: Clarity of presentation	153
5.7.5	Domain 5: Applicability	153
5.7.6	Domain 6: Editorial independence	154
5.8	Selected guidelines for adaptation on the Namibia context.....	154
5.9	Validity and reliability	155
5.10	Data analysis	155
5.10	Adaptation of the selected guidelines on the Namibia context	155
5.11	Discussion.....	157
6.1	Introduction	162
6.2	NGT participants' sociodemographic profile	162
6.3	Findings of the NGT	164

6.3.1 Theme 1: Rationale for developing guidelines to manage perinatal depression	165
6.3.1.1 Early detection and management of perinatal depression	165
6.3.2 Theme 2: Prerequisites before screening for perinatal depression	166
6.3.2.1 Informed consent	166
6.3.2.2 Confidentiality	166
6.3.2.3 Involvement of family members in screening for depression.....	167
6.3.2.4 Follow-up visits	167
6.3.2.5 Policy formulation	168
6.3.3 Theme 3: Screening for perinatal depression using a validated tool.....	168
6.3.3.1 A valid tool to screen for perinatal depression.....	168
6.3.3.2 Timing of screening	169
6.3.3.3 Allocating the scores and retesting	169
6.3.4 Theme 4: Integrating psychosocial assessment and depression screening in primary health care	170
6.3.4.1 Assessing women with or at risk of psychosocial factors	170
6.3.4.2 Incorporating screening for and assessment of psychosocial risk factors into perinatal care	171
6.3.4.3 Creating awareness of psychosocial risk factors.....	171
6.3.5 Theme 5: Culturally appropriate screening and assessment	172
6.3.5.1 Culturally appropriate tools	172
6.3.6 Theme 6: Management of perinatal depression	174
6.3.6.1 Psychosocial management and interventions.....	174
6.3.7 Theme 7: Outline clear referral care pathways	175

6.3.7.1	Referral of severe depression	175
6.3.8	Theme 8: Management of suicide risk	175
6.3.8.1	Assessing the risk of suicide	176
6.3.8.2	Managing identified risk of suicide	176
6.3.9.9	Theme 9: Acceptability and feasibility of guidelines and interventions	176
6.3.9.1	Provide adequate resources	177
6.3.10	Theme 10: Guidelines for screening for perinatal depression and psychosocial risk factors after delivery (post-natal depression)	178
6.3.10.1	Screening for perinatal depression once at six weeks after delivery, using a validated tool	178
6.3.10.2	All women should be assessed for psychosocial risk factors using a validated tool.....	178
6.4	Voting and ranking of themes.....	179
6.5	Conclusion	179
7.1	Introduction	180
7.2	Steps in the development and refinement of the guidelines	180
7.2.1	Step 1: Purpose and scope of the guidelines	180
7.2.2	Step 2: Rigour of the guidelines	180
7.2.4	Step 3: Integration phases 1, 2 and 3	181
7.2.4	Step 4: Stakeholders' involvement.....	187
7.2.5	Step 5: Integration of conceptual framework and draft guidelines	187
7.2.5.1	Conceptual framework of stress vulnerability, depression, and health outcomes	187
7.2.5.2	Stress and vulnerability	187

7.2.5 3 Depression.....	189
7.2. 5.4 Health outcomes.....	190
7.2.6 Step 6: Refinement of the guidelines by experts	194
7.3 Expert participants' socio-demographic profile	194
7.4 Criteria for refining and rating the guidelines	195
7.4.1 Scope and purpose.....	195
7.4.2 Stakeholders' involvement.....	196
7.4.3 Rigour of development: validity and reliability	196
7.4.4 Clarity of presentation.....	196
7.4.5 Applicability	197
7.5 Expert panel findings	197
7.5 Guidelines dissemination and implementation.....	202
7.6 Conclusion	202
8.1 Introduction	203
8.2 Purpose of the study	203
8.3 Conclusion of findings.....	203
8.3.1 Conceptual framework.....	204
8.3.2 Experiences of women with perinatal depression.....	204
8.3.3 Explore and describe the needs of women with perinatal depression	205
8.3.4 Healthcare providers' experiences of working with women with perinatal depression.	205
8.3.5 Barriers to assessment and management of perinatal depression.	206

8.3.6	Systematic literature review.....	207
8.3.7	Development and refinement of guidelines to manage perinatal depression	207
8.4	Significance of the study.....	208
8.4.1	Policy and practice.....	208
8.4.2	Nursing education	208
8.4.3	Community.....	209
8.5	Strengths and limitations of the study	210
8.6	Recommendations	210
8.6.1	Education	210
8.6.2	Practice	211
8.6.3	Further research	212
8.7	Contribution to the body of knowledge	212
8.7.1	Explore and describe the experiences of women with perinatal depression.....	213
8.7.2	Explore and describe the needs of women with perinatal depression.	213
8.7.3	Explore and describe the experience of the healthcare providers working with women with perinatal depression.	213
8.7.4	Explore and describe the barriers preventing assessment of perinatal depression.....	213
8.8	Conclusion	214
	LIST OF REFERENCES.....	215
	ANNEXURE A: UNIVERSITY OF PRETORIA ETHICAL CLEARANCE	246
	ANNEXURE C: WOMEN WITH PERINATAL DEPRESSION PARTICIPANT INFORMED CONSENT.....	248
	ANNEXURE D: HEALTHCARE PROVIDERS INFORMED CONSENT DOCUMENT	251

LIST OF FIGURES

Figure 2.1 Conceptual framework of individual stress vulnerability, depression, and health outcomes in women (source: Kinser & Lyon 2014:667)	17
Figure 2.2 Application of the conceptual framework to the study.....	21
Figure 5.1 PRISMA flow chart of the study identification process for systematic reviews 2020	146
Figure 6.1 Participants' professional categories (n=12).....	163
Figure 6.2 Nominal group participants' age groups (n=12).....	163
Figure 7.1 Integration of multi method findings.....	183
Figure 7.2 Integration of conceptual framework on the study.....	195

LIST OF TABLES

Table 1.1 Phases, objectives, and methodology of the study	9
Table 1.2 Outline of the thesis	13
Table 2.1 Exploratory sequential multi-methods integration	28
Table 2.2 Example of reflective field notes	33
Table 3.1 Participants' age, employment status, and depression type	54
Table 3.2: Objective 1: Themes and sub-themes	Error! Bookmark not defined.
Table 3.3 Participants' socio demographic profile	77
Table 3.4 Objective 2: Themes and sub-themes	77
Table 4.1 Integration of phase 1 and 3 findings	136
Table 5.1 Characteristics of selected guidelines	148
Table 5.2 Domain scores of the guidelines (percentages)	152
Table 6.1 Participants' qualifications and years of experience	164
Table 7.1 Steps in the development and refinement of the guidelines	180

LIST OF ABBREVIATIONS / ACRONYMS

Abbreviation / acronym	Meaning
AGREE	Appraisal of Guidelines for Research & Evaluation
ANRQ	Antenatal Risk Questionnaire
BDI	Beck Depression Index
CAM	Complementary and Alternative Medicine
CBT	Cognitive behavioural therapy
CPGs	Clinical Practice Guidelines
CINAHL	Cumulative Index of Nursing and Allied Health Literature
COPE	Centre of Perinatal Excellence
DASS	Depression Anxiety Stress Scale
DSM	Diagnostic and Statistical Manual
EPDS	Edinburgh Postnatal Depression Scale
HSCL-15	Hopkins Symptoms Check List
ICM	International Confederation of Midwives
IPT	Interpersonal psychotherapy
MDD	Major depressive disorder
MOHSS	Ministry of Health and Social Services
NICE	National Institute for Clinical Excellence
NGT	Nominal Group Technique
PICOT	Population, Intervention, Comparator , Outcome, Time
PST	Problem Solving Therapy
RANZCOG	Royal Australian and New Zealand College of Obstetricians and Gynaecologists
Se	Sensitivity
SIGN	Scottish Intercollegiate Guidelines Network
SRQ	Self-Reporting Questionnaire
Sp	Specificity
TB	Tuberculosis
THP	Thinking Healthy Programme
UP	University of Pretoria
UNAM	University of Namibia
WHO	World Health Organization

CHAPTER 1 OVERVIEW OF THE STUDY

1.1 Introduction

Perinatal depression is a mental and public health concern which can develop into one of the most disabling disorders among women during the perinatal period (Hadi, Shirazi & Soraya 2019:108). The perinatal period is defined as the time from conception through the first year after delivery (Garcia & Yim 2017:58). Perinatal depression is depression that begins in the period from conception up to one year after pregnancy (Lund, Schneider, Garman, Davies, Munodawafa, Honikman, Bhana et al 2020:2). Perinatal depression is linked with various negative outcomes such as disrupted maternal functioning, disordered mother-infant interactions, impaired growth, and development of the infant, as well as psychological, behavioural, and cognitive difficulties in descendants (Gentile 2017:155). Depression may arise in pregnancy or pre-date the perinatal period. During pregnancy, the danger of perinatal depression is known to increase as pregnancy progresses. Clinically significant depressive symptoms in the second and third trimesters that are not treated may manifest during the postpartum period (Sheeba, Nath, Metgud, Krishna, Venkatesh, Vindhya & Murthy 2019:1).

Perinatal depression is of particular concern because of its high prevalence and its disabling effects on mother and baby. In 2016, the World Health Organization (WHO) introduced the *Global strategy for women's, children's, and adolescents' health 2016-2030* to end all preventable maternal, newborn and child deaths by 2030 and improve their overall health and well-being. The strategy includes a monitoring framework to help countries promote accountability in ending preventable deaths ("Survive"), ensuring health and well-being ("Thrive"), and expanding enabling environments so that all can reach their potential ("Transform") and no one is "left behind" (WHO, 2016:n.p). Supporting good mental health can improve health outcomes, and in 2022, the World Health Organization (WHO) published the *Guide for integration of perinatal mental health in maternal and child health services*. The guide outlines an evidence-informed approach to developing and sustaining high-quality integrated mental health services for women during the perinatal period (WHO, 2022:2).

This chapter presents an overview of the study, including the background, the problem statement, purpose and objectives, significance, and research design and methodology of the study.

1.2 Background

Perinatal depression is a worldwide concern. In Mexico, Lara, Navarrete, Nieto, Martin, Navarro and Lara-Tapia (2015:21) found a 16% to 30% prevalence of perinatal depression and stated that most Latin American countries had yet to recognise the importance of providing mental health care for expectant and postpartum mothers to reduce disability in mothers and infants. In south-east China, Zhang, Muyiduli, Wang, Jiang, Wu, Li, Mo et al. (2018:523) found an incidence of between 26.1% and 35% of perinatal depression, while Scime, Swansburg, Kromm, Metcalfe, Leitch and Chaput (2019:1) reported an incidence of 5% to 11% in Canada. The incidence of perinatal depression is even higher in women from low- and middle-income countries. A study in five low- and middle-income countries, namely Ethiopia, India, Nepal, Uganda, and South Africa, found the prevalence of perinatal depression ranged between 30% and 50% (Baron, Hanlon, Mall, Honikman, Breuer, Kathree, Luitel et al. 2016:9).

In Ethiopia, Azale, Fekadu and Hanlon (2018:4) found a 12.2% prevalence of perinatal depression, while Mochache, Mathai, Gachuno, Stoep and Kumar (2018:6) reported a prevalence of 38.4% in Kenya. In South Africa, O'Connor, Rossom, Henninger, Groom and Burda (2016:398) reported a prevalence of 21% in the Drakenstein sub-district of the Western Cape, and Peltzer, Rodriguez, Lee and Jones (2018:1375) found a 36% prevalence of postpartum depression in Mpumalanga province.

Globally, various risk factors are associated with perinatal depression. In their systematic review, Biaggi, Conroy, Pawlby and Pariante (2016:64) found that lack of support, intimate partner violence, low socio-economic status, younger age, and a history of abuse or domestic violence were linked to perinatal depression. Personal history of mental illness, unplanned or unwanted pregnancy, adverse events in life and higher perceived stress levels, and past and present pregnancy complications were also associated with perinatal depression (Biaggi, Conroy, Pawlby & Pariante 2016:66). In sub-Saharan Africa, risk factors contributing to perinatal depression faced by women included HIV/AIDS, loss of a child or loved one, low social support, poverty, intimate partner violence, relationship problems and unplanned pregnancy (Azale, Fekadu & Hanlon 2018:4).

In Namibia, studies regarding the prevalence of perinatal depression and other mental illnesses are rare. Currently, there is no reliable comprehensive epidemiological statistics about the prevalence of perinatal depression. However, women in Namibia experience perinatal depression. Interpersonal and relational factors constantly emerge as risk factors of psychological distress for perinatal depression. In their study in Namibia, Bikinesi, Mash and Joyner (2017:3) found that 10.1% of women who attended antenatal care at Outapi Clinic,

Namibia had experienced intimate partner violence during their lifetime. The prevalence intimate partner violence was 9.1% for the 12-months following birth and 8.0% during pregnancy (Bikinesi et al. 2017:3). Intimate partner violence is one of the risk factors influencing perinatal depression globally. Namibia has one of the highest rates of intimate partner violence (32%) and sexual violence in Africa, of which 6% of women started experiencing violence during pregnancy (Ministry of Health and Social Services [MOHSS] 2014:295). The high number of Namibian women who experience violence during the perinatal period may be more vulnerable to perinatal depression.

Namibia is faced with the social phenomenon of “baby dumping” and infanticide. A study in Namibia attributed baby abandonment to psychological issues, including lack of support from family members, lack of support from the community, and lack of support from a male partner or boyfriend (Amukugo & Karera 2019:673). Baby abandonment and infanticide are regarded as criminal activities in Namibia. Most of the time, women who abandon or kill their newborn babies are imprisoned without considering their mental state. Patel, Saxena, Lund, Thornicroft, Baingana, Bolton, Chisholm et al. (2018:1558) state that mental illness, such as perinatal depression, is influenced by many factors, resulting from political, economic, and institutional power differences, and emphasise the need for structural and social interventions and comprehensive responses to address mental health problems. In their study in Nigeria, Ojedokun and Atoi (2012:415) linked baby dumping to gender inequality, poverty, modernization, prostitution, physical disability, and infidelity.

The management of mental illness should change from criminal justice-based to public health-based (Patel et al. 2018:1558). In Malawi, Ng’oma, Meltzer-Brody, Chirwa and Stewart (2019:16) emphasised the need for culturally sensitive interventions in treating perinatal depression due to postpartum psychosis, suicide, anxiety disorders, alcohol or substance abuse and post-traumatic stress disorder.

Namibia is also challenged by adolescent pregnancies, which are predominantly a public health problem and pose a perinatal mental health burden. Gressier, Guillard, Cazas, Falissard, Glangeaud-Freudenthal and Sutter-Dallay (2017:287) emphasise that suicide attempts in pregnant and postpartum women are linked with serious mental disorders. The study found that 15% to 20% of perinatal women present with a mental disorder, but the rates of perinatal depression increased to 40% to 60% in teenage mothers and low-income women (Gressier et al. 2017:288).

Perinatal depression and its associated contributing risk factors may be addressed through psychosocial interventions, including screening, to reduce the burden (Stewart, Umar,

Tomenson & Creed 2013:1045). Maternal mental health guidelines in reproductive health care, integration of depression management in existing screening tools, awareness creation, task shifting, and capacity building are recommended as tools to effectively address perinatal depression (Ng'oma, Meltzer-Brody, Chirwa & Stewart 2019:12). There is evidence that midwives may effectively intercede to reduce depressive symptoms during perinatal screening (Pratico 2019:44).

A situational analysis conducted in five low- and middle-income countries, namely Ethiopia, India, Nepal, South Africa and Uganda, found that maternal mental health services were sorely lacking (Baron et al 2016:11). Strategies and guidelines for the provision of maternal mental health had been developed, some had yet to be fully implemented (Baron et al 2016:11). A lack of awareness and capacity to identify and manage perinatal depression, and lack of treatment guidelines and service pathways were also reported in Malawi (Ng'oma et al 2019:12).

A screening programme conducted by Khanlari, Ogbo and Eastwood (2019:8) in Sydney, Australia, identified that screening for perinatal depression improved early detection, assessment and management of perinatal depression. Several screening tools, such as the Edinburgh Postnatal Depression Scale (EPDS), Self-Reporting Questionnaire (SRQ), Beck Depression Index (BDI), Hopkins Symptoms Check List (HSCL-15) and Centre for Epidemiological Studies Depression Scale, have been validated for use during perinatal care in various countries and low-resource settings, because of their accuracy, sensitivity, specificity and clinical usefulness (Chorwe-Sungani & Chipps 2017:2; Natamba, Achan, Arbach, Oyok & Ghosh 2014:4; Stewart, Umar, Tomenson & Creed 2013:1044). However, none of the abovementioned tools has been used in Namibian health care settings. Although Namibia has a high prevalence of perinatal depression, there are no guidelines to manage perinatal depression in women attending perinatal care at health care settings in Namibia.

In Namibia, perinatal care includes history taking, physical and laboratory examination, prophylaxis drugs, vaccines, and pap smears within the first six weeks (Ministry of Health and Social Services [MOHSS] 2017:10). Perinatal care is mostly provided by midwives. Apparently, there are guidelines, but they do not address maternal care. A lack of perinatal guidelines may have profound adverse effects on women and their children, including the risk of poor adherence to medical care, exacerbation of medical conditions, loss of interpersonal and financial resources, smoking and misuse of substances, suicide, and infanticide (Kendig, Keats, Hoffman, Kay, Miller, Moore et al 2017:272). Despite challenges in reaching the maternal and child health millennium developmental goals, Namibia has managed to achieve

95% perinatal care coverage, which is above the ratified target (MOHSS 2017:12). The high enrolment in perinatal care in many parts of the country offers a good opportunity to introduce guidelines to manage perinatal depression. Moreover, dealing with perinatal depression and its causes may assist in achieving Sustainable Development Goal (SDG) 3, which focuses on safeguarding healthy lives and promoting well-being for all ages (Izutsu, Tsutsumi, Minas, Thornicroft, Patel & Ito 2015:1052; Patel et al 2018:1554). There is a global need for countries to scale up services for women affected by mental disorders, including perinatal depression (Rahman, Fisher, Bower, Luchters, Tran, Yasamy, Saxena & Waheed 2013:595).

All countries should decrease premature death caused by non-communicable diseases by one-third through prevention, identification, and treatment and endorse mental health and well-being, including perinatal mental health by 2030 (Patel et al 2018:1555). The researcher is of the opinion that the government of Namibia should introduce interventions to address maternal mental disorders in order to achieve SDG3 (good health and well-being for all ages). To achieve health for all ages should ensure equitable health provision including the provision of maternal mental health. There is increasing evidence from low- and middle-income countries that such interventions can be successfully implemented by healthcare providers, including trained and supervised non-physician primary healthcare workers, which could benefit both mothers and their children (Clarke, King & Prost, 2013). Accordingly, this study wished to broaden the local mental health agenda by decreasing the treatment gap for women affected by perinatal depression. The development of guidelines to manage perinatal depression is essential for the early identification and management of women with depressive symptoms, leading to improvement of their mental health.

1.3 Problem statement

Globally, depressive disorders contribute between 5% and 20% of the disease burden of women during the perinatal period (Gressier et al 2017:285). About 11.9% of women suffering from perinatal depression are from low- and middle-income countries (Woody, Ferrari, Siskind, Whiteford & Harris 2017:289). In Namibia, according to the monthly ward statistics, the two maternity hospitals admit around 20 women with suspected depression and presenting with other psychosocial problems. Around four or five women with severe mental illness are transferred to a psychiatric hospital for further treatment, including those who have given birth, leaving their neonates in the neonatal care unit. Although Namibia has perinatal guidelines, the current perinatal guideline does not include perinatal mental health, and mental health services are not always readily available (MOHSS, 2020).

Perinatal depression has been researched in high-income countries and guidelines developed. However, perinatal mental health guidelines are still lacking in more than 80% of low- and middle-income countries (Cui, Jiang & Nie 2018:1). The extent to which guidelines can target women during the perinatal period is still being explored in low- and middle-income countries (Woody et al 2017:90). It is not always possible to adopt perinatal guidelines developed in high-income countries to manage perinatal depression in low- and middle-income countries. In their review, Gajaria and Ravindran (2018:113) found that perinatal depression guidelines developed in high-income countries were not always culturally applicable to the unique needs of women in low- and middle-income countries. However, they could be adapted to be culturally appropriate to the unique needs of low- and middle-income countries. To be culturally appropriate, the guidelines should be modified to include local research and consensus and contain questions that are correctly understood and do not cause discomfort to participants. Guidelines and screening tools should also accommodate local experience and expression of mental illness, allowing for local idioms of distress to be incorporated in the questionnaires (Ali, Ryan & De Silva 2016:14).

Midwives and other health care providers could detect and manage perinatal depression in pregnant and postnatal women (Clarke, King & Prost 2013:12). Perinatal guidelines to manage depression should mainly focus on early identification of women who are experiencing depressive symptoms so that they receive the timely support and care they need (Bansal, Kalra & Dubey 2019:329). The lack of perinatal guidelines to manage depression may result in delayed identification and management of those with depressive symptoms (Wilcox, McGee, Ionescu, Leonte, LaCross, Reys & Weldenhaus, 2020). If perinatal depression is not diagnosed and managed at an early stage, it may proceed as postnatal depression, have a negative impact on birth outcomes, or progress to poorer social, cognitive, and behavioural outcomes in the child (Tachibana, Koizumi, Akanuma, Tarui, Ishii, Hoshina, Suzuki et al 2019:10). Therefore, there is an urgent need to integrate the management of perinatal depression into routine perinatal services. The development of guidelines to manage perinatal depression may address screening, diagnosis and prevention for perinatal depression and play a role in achieving the Government of Namibia's aim of integrating mental health into maternal health care services (MOHSS 2017:13). This could help make perinatal depression a public health agenda in Namibia. Consequently, the researcher wished to develop guidelines to manage perinatal depression in Namibia.

1.4 Purpose and objectives

The purpose of the study was to develop guidelines to manage perinatal depression in Namibia. In order to achieve the purpose, the objectives were to:

Phase 1

- Explore and describe the experiences of women with perinatal depression.
- Explore and describe the needs of women with perinatal depression.
- Explore and describe the healthcare providers' experiences of working with women with perinatal depression.
- To explore and describe the barriers to manage perinatal depression in Namibia

Phase 2

- Conduct a systematic review of current global guidelines to manage perinatal depression.

Phase 3

- Based on the findings of objectives 1, 2 and 3, to develop and refine guidelines to manage perinatal depression in Namibia.

1.5 Research questions

The study wished to answer the following questions:

- What are the experiences of women with perinatal depression?
- What are the needs of women with perinatal depression in Namibia?
- What are healthcare providers' experiences of working with women with perinatal depression?
- What are the barriers preventing healthcare provider to manage perinatal depression?
- What guidelines are available globally that may be adapted to manage perinatal depression in Namibia?
- What should guidelines to manage perinatal depression in Namibia entail?

1.6 Significance of the study

The study findings may benefit policy and practice and nursing education and encourage further research.

1.6.1 Policy and practice

The findings aim to assist policy makers to develop and implement effective interventions for addressing perinatal depression, thereby reducing the burden of depression in women during the perinatal period. This could increase women's access to mental health care during the perinatal period and contribute to the government's agenda of improving the mental health of

all Namibians. The developed guidelines for midwives and healthcare providers to manage perinatal depression should enable them to effectively detect, manage and refer pregnant women with perinatal depression in Namibia. Early identification of perinatal depression may avoid the worsening of depression. The guidelines should also improve accessibility to mental health care and promote the safety of women in the perinatal period.

1.6.2 Nursing education

The findings of this study add to the existing knowledge on perinatal depression guidelines, which included instruments used to screen for perinatal depression and interventions. Nurse educators may use the guidelines when formulating, reviewing, or implementing curricula for midwives to screen for and manage depression during the perinatal period effectively. Lastly, the findings may also be incorporated in continuous professional development programs for midwives to manage perinatal depression with competence and confidence.

1.6.3 Research

The development of guidelines may be the first step in translating evidence into practice. This may serve as a platform for future research to evaluate the effectiveness and suitability of the perinatal guidelines. In addition, the study may encourage further research to inform practice.

1.7 Research paradigm

A paradigm is a way of looking at natural phenomena that encompasses a set of philosophical assumptions and guides a researcher's approach to inquiry (Polit & Beck 2017:712). The same authors add that paradigms are lenses that help to sharpen the researcher's focus on a phenomenon. Kivunja and Kuyini (2017:26) state that paradigms help researchers to inspect the methodological aspects of their study to decide which methods to use to gather and analyse the data.

In this study the researcher selected constructivism as the paradigm to explore the phenomenon of perinatal depression (see chapter 2 for discussion). This assisted the researcher to answer the research questions and obtain a deeper understanding of the phenomenon under study.

1.8 Research design

A research design is the plan for addressing a research question, including specifications for enhancing the integrity of the study (Polit & Beck 2017:513). The research design is a blueprint

for conducting a study and indicates the basic strategies a researcher will use to answer the research questions (Brink, van der Walt & van Rensburg 2018:101).

The researcher selected an exploratory, descriptive, and contextual design to explore and describe perinatal depression in order to understand the participants' needs, views and experiences (Creswell & Plano-Clark 2018:72) since no study of the topic has been conducted in Namibia. The researcher wished to acquire insight into and knowledge of the phenomenon from the participants' emic viewpoint (see chapter 2 for discussion).

1.9 Research methodology

Polit and Beck (2017:510) describe research methodology as the “steps, procedures and strategies taken to investigate the problem being studied and to analyse the collected data”. Research methods are the techniques and tools researchers use to structure a study and to gather and analyse information relevant to the research questions (Polit & Beck 2017:517; Creswell & Poth 2016:74). The research methodology includes the population; sample and sampling; data collection and analysis, and validity and reliability.

Table 1.1 lists the phases, objectives, and methodology of the study (see chapter 2 for discussion).

Table 1.1 Phases, objectives, and methodology of the study

Phase	Phase 1 Objective 1: Explore	Phase 1 Objective 2: Explore	Phase 2 Systematic review	Phase 3 Develop guidelines
Research questions	What are the experiences of women with perinatal depression? What are the needs of women with perinatal depression in Namibia?	What are the healthcare providers' experiences of working with women with perinatal depression? What are the barriers preventing healthcare provider to manage perinatal depression?	What perinatal guidelines are available globally that may be adapted to manage perinatal depression in Namibia?	What should perinatal guidelines to manage perinatal depression in Namibia entail?
Objectives	To explore and describe the experiences of women with perinatal depression. To explore and describe the needs of women with perinatal depression in Namibia.	To explore and describe the experiences of healthcare providers of working with women with perinatal depression To explore and describe the barriers to manage perinatal depression in Namibia	To conduct a systematic review on current guidelines used to manage perinatal depression globally.	To develop guidelines for the management of perinatal depression
Methodology	Qualitative	Qualitative	Systematic review	Nominal group technique,

				qualitative and quantitative
Research design	Exploratory, descriptive and contextual design	Exploratory, descriptive, and contextual design	N/A	Consensus design
Population	Women who are diagnosed and being managed with perinatal depression	Health care providers including doctors and midwives as key informants	National Guideline Clearinghouse (NGC), National Institute for Health and Care Excellence (NICE), Royal College of Obstetricians and Gynaecologists (RCOG), Royal Australian College of General Practitioners (RACGP) and American Academy of Paediatrics (AAP)	Experts and stakeholders
Sampling	Purposive	Purposive	Purposive	Purposive
Data collection	Semi-structured interviews, using an interview guide	Semi-structured interviews, using an interview guide	Systematic review to identify a suitable guideline for Namibian context	Nominal group technique, quantitative and qualitative data collection
Data analysis	Thematic analysis of qualitative data	Thematic analysis of qualitative data	Descriptive analysis	Qualitative and quantitative data analysis
Rigour	Trustworthiness	Trustworthiness	Appraisal of Guidelines for Research & Evaluation Instrument (AGREE II)	Validity and reliability and trustworthiness

1.10 Definition of key terms

For the purposes of this study, the following terms were used as defined below.

- **Depression**

Depression is a mood disorder characterised by an individual presenting with five or more of nine symptoms during the same two-week period and experiencing change from previous functioning. The *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* describes depression as characterized by nine major depressive symptoms and at least five of the symptoms that should be present for the past two weeks period: (1) depressed mood, (2) markedly reduced interest or pleasure, (3) loss of appetite, (4) insomnia, (5) psychomotor agitation, (6) fatigue, (7) feelings of unimportance and guilt, (8) reduced capability to think and concentrate, and (9) suicidal ideation without a detailed plan, or a suicide attempt (Birx, Campbell, Rowe, Gjedde, Bauer, Wong & American Psychiatric Association 2011:163). Five

or more of the above symptoms should have been present during the past two weeks. Anyone who is either depressed or has a loss of interest or pleasure and suicidal thoughts must be considered as a serious case.

In this study, any woman who presented with any five or more of the symptoms (DSM- 5) was considered to have depression.

- **Perinatal guidelines**

Perinatal guidelines contain the principles of risk identification, evidence-based recommendations for screening, detection and counselling for ante- and intrapartum care in complex perinatal settings (Kilpatrick, Papile & Macones, 2017:n.p). In this study perinatal guidelines referred to guidelines developed specifically for use by health care providers to manage perinatal depression in Namibia.

- **Perinatal depression**

Perinatal depression is defined as a depressive episode occurring during pregnancy, postnatal period or within one year after delivery (Lund et al 2020:2). In this study, perinatal depression was considered a depressive episode occurring during pregnancy or the immediate postnatal period, or within six weeks following delivery, identified by a score of 10 or above the standard cut-off scores of the Edinburgh Postnatal Depression Scale 1 (EPDS) (Cox, Holden & Sagovsky, 1987).

- **Perinatal period**

The perinatal period is defined as the time from conception through the first year after delivery (Garcia & Yim 2017:58). In this study, the perinatal period was the period starting from the onset of pregnancy until six weeks following delivery. In Namibia, perinatal care is only provided up to six weeks following delivery.

- **Midwife**

The International Confederation of Midwives (ICM) defines a midwife as a person who has successfully completed a midwifery education programme that is based on the ICM essential competencies for basic midwifery practice (ICM 2010:1). The framework of the global standards for midwifery education is recognized in the country where it is located. The midwife who has acquired the requisite qualifications to be registered, is legally licensed to practice midwifery, uses the title midwife and demonstrates competency in the practice of midwifery (ICM 2010:2). In this study, a midwife was a person who had successfully completed the

midwifery training programme in a recognized training institution, was registered with the Nursing Council of Namibia (the governing body for nurses and midwives to practise) and was working at specific perinatal clinics giving the required support, care and advice to women during the perinatal period.

1.11 Ethical considerations

Ethics deals with matters of right and wrong. When humans are used as study participants, care must be taken to ensure that their rights are protected (Polit & Beck 2017:730). In research, ethics is concerned with the degree to which research procedures adhere to professional, legal, and social obligations to the study participants (Polit & Beck 2017:730). Accordingly, the researcher obtained permission to conduct the study, obtained informed consent from the participants, and observed the ethical principles of beneficence, respect for human dignity, and justice (Polit & Beck 2017:731).

1.11.1 Permission

The researcher obtained ethical clearance and permission to conduct the study from the Research Ethics Committee of the University of Pretoria. Permission and approval were also obtained from the Ministry of Health and Social Services in Namibia (see Annexure A and B). Approval was obtained from the managers of the healthcare facilities where interviews took place.

1.11.2 Informed consent

Informed consent involves participants' right to make informed, voluntary decisions to participate, which requires full disclosure and no deception or concealment (Polit & Beck 2017:731). The researcher informed the participants of the purpose and significance of the study, that participation was voluntary, and that they were free to withdraw from the study at any time should they wish to do so without any negative effect on the care received at the perinatal clinic. The participants were allowed to ask any questions they might have regarding the study and participation. The researcher also obtained the participants' consent to audio-record the interviews. The participants then signed informed consent (see annexure C).

1.11.3 Beneficence

The right to protection from discomfort and harm is based on the ethical principle of beneficence. The principle of beneficence states that one should do good and, above all, do no harm (Grove, Burns & Gray 2013:185). Accordingly, the researcher ensured that the participants were not exposed to any physical, emotional, social, or other harm. The researcher was particularly sensitive when interviewing participants as they revealed critical

and sensitive information concerning perinatal depression. The researcher planned and arranged to refer any participants for counselling who showed signs of distress associated with the interview. Accordingly, in one case, the researcher ceased the interview when the participant showed signs of severe distress.

1.11.4 Justice

The principle of justice refers to the right to privacy and fair treatment (Polit & Beck 2017:214). The researcher assured the participants of privacy, confidentiality, and anonymity and treated all the participants fairly and with respect (Grove, Burns & Gray 2013:186). The researcher informed the participants that no names would be given in the research report and their information would be treated with the utmost confidentiality. In addition, all the collected data, transcriptions and notes would be kept safely in a password-protected computer and a locked cupboard to which only the researcher had access. The researcher used codes instead of names for participants. This was done to safeguard their identities. The data will be destroyed 15 years after publication.

1.11.5 Respect for human dignity

The principle of respect for human dignity includes the right to self-determination and full disclosure. The researcher informed the participants that they had the right to decide whether to volunteer to participate, and the right to disclosure. In addition, they had the right to ask questions, refuse to give information, or withdraw from the study (Polit & Beck 2017:212). The researcher explained the nature and purpose of the study and what would be required from them (Polit & Beck 2017:213).

This chapter presents the discussion and integration of the qualitative findings.

1.12 Outline of the study

The study consists of seven chapters. Table 1.2 outlines the chapters.

Table 1.2 Outline of the thesis

CHAPTER	DESCRIPTION
1	Overview of the study
2	Conceptual framework, paradigm and methodology
3	Data analysis, interpretation and findings
4	Discussion and integration of the qualitative findings
5	Systematic review of guidelines to manage perinatal depression
6	Development of draft guidelines to manage perinatal depression
7	Development, refinement and rating of guidelines to manage perinatal depression
8	Conclusions, limitations and recommendations

1.13 Conclusion

This chapter described the background, problem, aim and objectives, paradigm, and research design of the study and defined key terms. Chapter 2 discusses the conceptual framework, paradigm, research design and methodology of the study.

CHAPTER 1 CONCEPTUAL FRAMEWORK, PARADIGM AND METHODOLOGY

2.1 Introduction

Chapter 1 provided an overview of the study. The purpose of the study was to develop guidelines for managing perinatal depression in Namibia. This chapter presents the conceptual framework, paradigm, research design and methodology used in the three phases of the study.

2.2 Conceptual framework

To explain and understand perinatal depression, the researcher used a conceptual framework for the study. According to Imenda (2014:189), a theoretical framework uses a theory and concepts of the theory to explain an event or a phenomenon. A conceptual framework is the end result of bringing together a number of connected concepts to explain or predict a given event and give a broader understanding of the phenomenon of interest. The author adds that the major difference is conceptual framework is derived from concept while theoretical framework is delivered from a theory.

Kivunja (2018) discussed the difference between theoretical and conceptual framework in detail. According to Kivunja (2018:46) the theoretical framework for the study should not be a summary of the researcher's own thoughts and the research, it should be a synthesis of the thoughts of the big picture. The conceptual framework includes one's thoughts on identification of the questions to be asked, the literature to be reviewed, the research topic, and the problem to be investigated (Kivunja 2018:47). This implies that the conceptual framework includes high order consideration of the following questions and/or issues about one's research.

1. What do you want to do in your research?

In the current study the researcher aimed to develop guidelines to manage perinatal depression.

2. Why do you want to do it?

The researcher wanted to fill the gap on perinatal depression as currently there are no guidelines to manage perinatal depression in the country and perinatal mental health is not accessible in the country.

3. How do you plan to do it?

A qualitative design under a constructivism paradigm was used. Data was gathered from women with perinatal depression, healthcare providers providing perinatal care, stakeholders and experts.

4. How will you make meaning of the data?

Data was analysed with thematic analysis.

5. Which worldview will you locate your research in?

A constructivism paradigm.

6. How will you report your findings?

Research papers and conference papers.

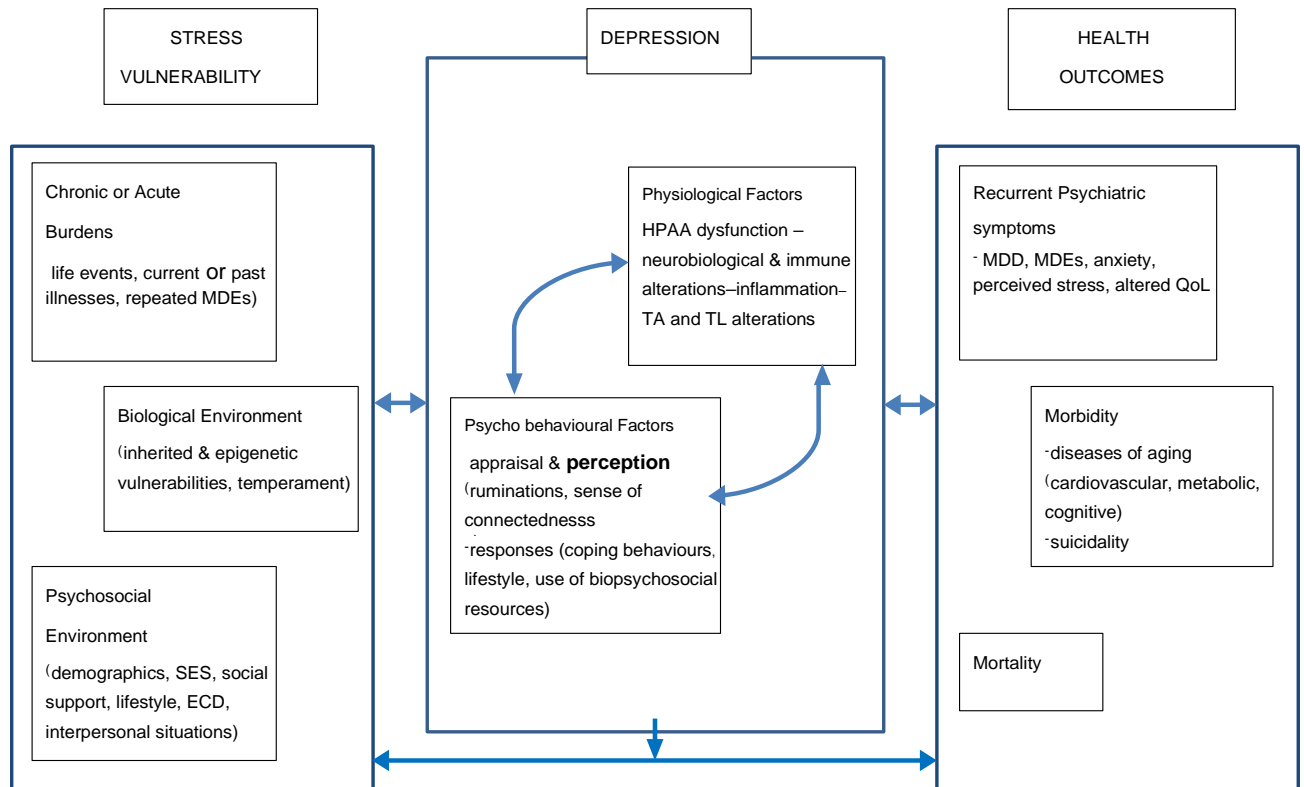
A theory generally arises from a long process of research that uses empirical data to make claims based on deductive and inductive analysis of the data. In a conceptual framework, the researcher uses an inductive and deductive process derived from concepts (Imenda 2014:189). In agreement with qualitative research, the researcher engaged in inductive reasoning in phase 1 of the study. This is because phase 1 required an exploration of the experiences and needs of women with perinatal depression, and experiences of healthcare providers working with women with perinatal depression. Phase 1 required the researcher to explore the study from the bottom up by interacting with both groups of participants to obtain rich, and data was inductively organised from which wide-ranging themes emerged (Creswell, 2013:45).

In Phase 2, a systematic review, the researcher engaged in deductive reasoning through a review of developed guidelines used to manage perinatal depression globally. In Phase 3, the researcher used deductive reasoning to confirm that the themes developed were continually being checked against the data collected (Creswell, 2013:45). In addition, the researcher also engaged in deductive reasoning during the development of the guidelines to manage perinatal depression.

Perinatal depression involves understanding various concepts, dimensions, and components (Imenda 2014:188). Consequently, the researcher had to employ an integrated way of exploring the phenomenon. The researcher therefore selected Kinser and Lyon's (2014) conceptual framework of stress vulnerability, depression, and health outcomes in women to explain and interpret the circumstances surrounding perinatal depression. All these reasons made the researcher to apply or chose a conceptual framework compared to a theoretical framework. The concepts, perspectives, and approaches to understanding depression, and specifically perinatal depression, are discussed in the following sections.

2.2.1 Conceptual framework of stress vulnerability, depression, and health outcomes

The key concepts of the conceptual framework are stress vulnerability, depression, and health outcomes (Kinser & Lyon 2014:667) (see Figure 2.1). The framework suggests that there is a bidirectional relationship between stress vulnerability, depression, and health outcomes in women.



SES= socioeconomic status; ECD= early childhood development; HPAA= hypothalamus-pituitary-adrenal axis; TA= telomerase activity; TL= telomere length; MDD= major depressive disorder; MDEs= major depressive episode; QoL= quality of life

Figure 0.1 Conceptual framework of individual stress vulnerability, depression, and health outcomes in women (source: Kinser & Lyon 2014:667)

2.2.2 Stress and vulnerability

Probable stressors in women's lives may interact and contribute to the risk of depression, and the experience of depression may heighten their tendency towards experiencing stressful episodes (Kinser & Lyon 2014:668). Long-term exposure to chronic stress can overload women's capacity to cope, which makes them vulnerable to depression (Kinser & Lyon 2014:668). Risk factors identified from the literature are mentioned in the next paragraphs.

Robust depression risk factors include stressful family environments, dysfunctional cognitions, parental depression, and interpersonal dysfunction (Hammen 2018:8). Poor social context,

low socioeconomic status, and gender-based violence are some of the main contributors to perinatal depression. In rural Pakistan, the stress and worry related with lower socioeconomic status, low education, food insecurity, and household debt were associated with worse mental and physical health during the pre- and perinatal period (Maselko, Sikander, Turner, Bates, Ahmad, Atif & Rahman 2018:8). Other risk factors for depression include stressful life circumstances, loss of a child or loved one, low social support, poverty, intimate partner violence, relationship problems, unplanned pregnancy, and lack of family and partner support (Lund et al. 2019:2; Azale, Fekadu & Hanlon 2018:4; Osok, Kigamwa, Vander Stoep, Huang & Kumar 2018:6). In Kenya and Ethiopia, unplanned pregnancy and not living with a spouse were among demographic and psychosocial factors contributing to perinatal depression (Ongeri, Wanga, Otieno, Mbui, Juma, Vander Stoep & Mathai 2018:5; Mersha, Abebe, Sori & Abegaz 2018:6). A history of poor relationships between pregnant women and their fathers during childhood, being physically abused when they were growing up, unemployment, being alone, major stresses before pregnancy, poor relationships, physical or sexual abuse, lack of support and prior history of anxiety or depression were reported as contributing factors for perinatal depression in Malawi (Chorwe-Sungani & Chipps 2017:8).

Furthermore, the presence of other or previous mental health problems may put women at higher risk of depression. For example, women with a history of antenatal depression are at increased risk of postnatal depression.

2.2.3 Depression

Periodic stressors often contribute to the onset of depression (Hammen 2018:8). Kinser and Lyon's (2014:668) conceptual framework indicates that psycho-behavioural factors contribute to the development and maintenance of depressive states in women. The framework suggests that every woman is a unique individual and has her own sense of control in the face of depression. However, depressed women frequently tend to have ruminations (repetitive negative thoughts), which increase their state of depression.

The negative effects of perinatal depression are highlighted in the literature, such as irritability, aggression, social withdrawal, and isolation. Isolation leads to dwelling on negative thoughts, which will exacerbate the depression, causing maladaptive functioning (Nyatsanza, Schneider, Davies & Lund 2016:7). With regards to the management of depression, the availability of biopsychosocial resources is a protective mechanism vital for the capacity of women to deal with perinatal depression. In Khayelitsha, Nyatsanza et al. (2016:17) identified biopsychosocial interventions which helped alleviate perinatal depression symptoms, such as psychoeducation, problem-solving, behaviour activation, individual counselling sessions and

healthy thinking. Peer support interventions are an effective strategy in treating women with mild-to-moderate depression (Dennis 2014:109). In Malawi, women with moderate and severe perinatal depression preferred biopsychosocial interventions as suitable management for perinatal depression rather than pharmacological interventions for fear of harming their neonates (Ng'oma et al 2019:14).

2.2.4 Health outcomes

The conceptual framework proposes that stress and depression affect health outcomes in women (Kinser & Lyon 2014:669). A person's aptitude to react to chronic stress related to depression mostly depends on available resources, such as the use of biopsychosocial resources. Long-term exposure to chronic stress can overload women's capacity to cope, which makes them vulnerable to depression (Kinser & Lyon, 2014).

Untreated perinatal depression is related to negative clinical outcomes for mothers and neonates as the mother may take longer to respond to treatment and relapse and show higher rates of depression-related disability (Jarde, Morais, Kingston, Giallo, MacQueen, Giglia, Beyene et al 2016:826). Other outcomes include poor adherence to medical care, exacerbation of medical conditions, loss of interpersonal and financial resources, smoking and substance use, suicide, and infanticide (Kendig et al 2017:272). Poor health outcomes may occur during the perinatal period if biopsychosocial resources are not available or used. In India, Bansal, Kalra and Dubey (2019:324) found that untreated prenatal depression was a major risk factor for post-natal depression that also led to adverse obstetric outcomes.

Health outcomes of untreated perinatal depression include increased risks of preterm birth, low birth weight, caesarean section, maternal complications such diabetes, anaemia and other social problems (Jarde et al 2016:826). It's also associated with ectopic pregnancy, miscarriage, hyperemesis, preterm contractions and substance abuse which may increase risk for developing chronic illnesses later in life (Hartos, 2021:29). Improved interventions for perinatal depression could positively impact maternal health and child well-being and survival.

2.2.5 Rationale for selecting the conceptual framework.

The researcher selected the conceptual framework because it includes the identification of risk factors to understand why women develop depression and offers protective factors that may decrease the chances of depression from occurring in the presence of risk. The researcher considered the framework relevant for this study because it provides the use of biopsychosocial resources and an opportunity to focus on women's needs. This guided the study in terms of detecting gaps and identifying relevant needs that women experience during

the perinatal period to achieve mental health. In addition, the framework points out that untreated depression has negative health outcomes in women and should be addressed.

The conceptual framework was relevant for the study as it test the use of corresponding treatments for women with perinatal depression. To be specific, the framework proposes a number of possible moderating variables including separate life stressors, perception of stress, rumination and response to the use of biopsychosocial interventions. This framework is suggested for use in future research on perinatal depression because it provides an obvious target for intervention depending on how an individual's respond to stress and depression through the availability and provide of biopsychosocial intervention. Lastly, the framework was suitable for the study because it focused on how stress, vulnerability, and depression has an effect on women specifically.

2.2.6 Application of the conceptual framework in the study

The researcher applied the conceptual framework of stress vulnerability, depression and health outcomes as follows in the study:

In phase 1, the conceptual framework guided the identification of causes, risk factors and needs (vulnerabilities) of women related to depression. Suggestions to address the needs (stressors and vulnerabilities) and ensure better health outcomes were also identified.

In phase 2, the conceptual framework was used to inform the search for relevant literature regarding perinatal guidelines. It assisted the researcher in identifying the characteristics of perinatal guidelines used to screen for perinatal depression globally, which could be adapted to the Namibian context.

In phase 3, the conceptual framework was used to identify relevant interventions to ensure better health outcomes using biopsychosocial interventions. The framework provided the concepts and domains used in developing guidelines to manage perinatal depression and assisted the researcher to develop the guidelines for use in Namibia (see Figure 2.2).

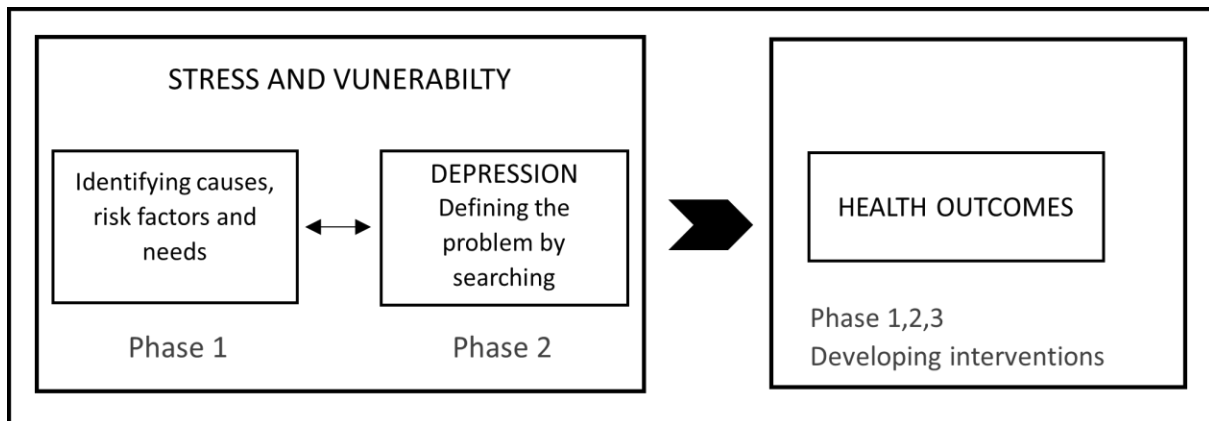


Figure 0.2 Application of the conceptual framework to the study

2.2.7 Examples of context in which the conceptual framework was successfully applied

The conceptual framework of individual stress vulnerability, depression, and health outcomes in women developed by Kinser and Lyon (2014) was successfully applied in various studies. The conceptual framework was used to study cellular aging and the mechanisms of Complementary and Alternative Medicine (CAM) for depression using yoga as an example of a CAM modality (Kinser & Lyon 2014:669). The framework indicated that the practice of yoga as a healthy biopsychosocial intervention could help individuals with depression to cope with stress and thus improve their mood. The framework was relevant and timely as it integrated numerous models and theories of the aetiology of depression within a context of cellular aging. Though, stressful experiences and negative ruminations might contribute to the cycle of stress and depression, yoga could permit the return to balance the multiple components involved in mental wellness (Kinser & Lyon 2014:669).

The framework was also used to examine the links between stress vulnerability, depressive symptoms, and mental health outcomes among the female students population in Pakistan (Zia, Khan, Hassan, Ali, Shamail, Zubair, & Zia 2023:17). The framework indicated that stress vulnerability is influenced by numerous biological, environmental and social factors. This vulnerability resulted in the development of depressive symptoms among female students. The depressive symptoms ultimately could be related to other psychiatric problems and morbidities. Students with symptoms of depression were more likely to exhibit poorly in their academic performance, and expressed lesser satisfaction and commitment towards their studies (Zia et al 2023:22).

The framework was also used to predict depression in Arab Muslim patients with end-stage renal disease. The finding indicated that stress levels and optimistic and fatalistic coping

strategies were significant predictors of depression (Al Sharji, Alaloul, Al Yazeedi, & Alharrasi, 2023:5). Remarkably, the participants' socio-medical variables and demographic were not related with depressive symptoms. The authors add there was no significant relationship between the number of comorbidities and depressive symptoms.

An integrative review about major depressive disorder and measures of cellular aging found that there is preliminary evidence to support conceptualization of depression as a stress-linked condition (Kinser & Lyon, 2013:6). The telomeres reduce over time in relation to increasing exposure to the chronic stress of depression. The majority of the studies (8 of 11) reviewed in this identified that individuals with major depressive disorder or those with a history of major depressive episode depressive symptoms have dramatically or close to significantly decreased telomeres related to controls, showing an "accelerated aging" of around 2–10 years (Kinser & Lyon, 2013:6). The authors further added it was recommended that telomere lessening might be the omitted link for understanding morbidity and mortality in depression.

2.3 Paradigm and philosophical assumptions

A paradigm is a way of thinking about something or a belief system that guides the way we do things or establishes a set of practices (Creswell 2014:18). Polit and Beck (2017:720) describe a paradigm as a worldview or "a way of looking at natural phenomena that encompasses a set of philosophical assumptions, and that guides one's approach to inquiry". The research paradigm thus provides the researcher with a frame of reference to ask and answer the research questions. Assumptions are "principles that are accepted as true based on logic or reason, without proof" (Polit & Beck 2017:720).

In this study, the researcher selected constructivism as the research paradigm. Constructivism assumes that meaningful understanding should be contextual (Ghiara 2020:19). In this worldview, individuals understand the world in which they live and work based on their experiences of objects or things (Creswell & Poth 2016:20). Therefore, reality is socially and personally constructed. Individuals are actively involved in constructing that reality. In this study, the constructivist paradigm enabled the researcher to explore and describe the experiences and needs of the participants who were diagnosed with perinatal depression, as well as the health care providers' experiences of working with women with perinatal depression and barriers to managing perinatal depression. Constructivism has ontological, epistemological, and methodological assumptions.

2.3.1 Ontology

Ontology is the study of being or reality. Ontological assumptions are concerned with the reality that is being investigated (Creswell & Poth 2016:33). Constructivism believes that there are many realities; reality changes; reality is constructed and interpreted by people who experience it; reality is experienced differently by different people, and reality is contextual. According to Creswell and Plano-Clark (2018:447), constructivism is founded on understanding the meaning of phenomena and should be shaped through participants' point of view.

In this regard, the researcher assumed that perinatal depression was shaped by the participants' point of view and their concerns were not isolated from the context where they live. There is wisdom in communities that informs the understanding, interpretation, and the decisions and interventions to be taken. The researcher relied on the participants' views of the situation. The researcher used quotes from the participants' words and provided evidence of different perspectives during the discussion. The researcher bracketed her beliefs about the phenomenon under study, her own experiences and background that could shape the interpretation of findings.

2.3.2 Epistemology

According to Kivunja and Kuyini (2017:27), epistemology refers to how the researcher and participants relate and share information. In this study, the researcher and participants were actively involved in the investigation and contributed to developing the perinatal guidelines. Constructivism assumes that the researcher interacts with participants and that the research results from the interaction.

The researcher undertook the study under a constructivist perspective believing that knowledge is individually and socially constructed and is not there to be discovered. People construct their own reality by the meaning and interpretations they attach to their experiences. Multiple truths do exist in the society (Otoo, 2020:81). There was interaction between the researcher and participants because she acknowledged and accepted that the context is vital for knowledge and knowing. This was ensured by prolonged engagement during the data collection with the participants. The interviews with women with perinatal depression was conducted over a period of two months lasting an average of 60 minutes. The researcher perceived the participants with perinatal depression as the main contributors through sharing their experiences, needs and ideas. Hence, they possessed equal power in constructing knowledge as they assisted in developing interventions to address their needs.

Interviews with healthcare providers was conducted over period of one month lasting an average of 30 to 35 minutes. The researcher assumed that the participating healthcare providers had adequate knowledge of the current practices of incorporating integrative therapies and, therefore, were the best individuals to share that knowledge. This assisted in building understanding and trust with the participants and seeking clarity and checking misinformation (Creswell, 2013:245). The researchers further engaged with the data from the interviews by listening to the audio recordings and read and re-read several times to familiarize herself with the data. She further engaged with data of the two days of workshop through the NGT, one with stakeholders and other with experts. People caring for women during the perinatal period, namely health care providers and mental health experts, were perceived as colleagues who helped address the identified gap. The researcher related meaningfully with these experts as a team that worked together and developed guidelines to address perinatal depression.

2.3.3 Methodology

Methodological assumptions refer to how researchers know what they know (Grove et al 2013:64). Constructivism assumes that insights emerge based on participants' experiences; small information-rich samples provide the best information; researchers are part of the research process, and the results provide a comprehensive understanding of the phenomenon under study (Grove et al 2013:64).

In this study, the needs of women diagnosed with perinatal depression and the experiences of health care providers about perinatal depression in Namibia were constructed using semi-structured interviews guided by interview guides, probing and field notes (Creswell & Poth 2016:19). The researcher purposively selected a sample of women who were diagnosed with perinatal depressive symptoms and healthcare providers who attended to women during the perinatal period. The participants in the NGT (nominal group technique) included stakeholders and experts in mental health and lecturers in midwifery science to elicit their views on perinatal mental health.

The qualitative enquiry was followed by a systematic literature review on perinatal depression guidelines worldwide. The guidelines developed in high-income countries were revised for use in the study context. The researcher integrated and synthesised evidence obtained from the review to develop contextual perinatal guidelines.

2.4 Context of the study

This study was conducted in Windhoek, which is the capital city of Namibia and is situated in Khomas region, one of the 14 regions in the country. According to the Namibia Statistics

Agency (NSA), Windhoek is the most populous city in Namibia, with an estimated population of 480,136 people (NSA, 2020:online). However, the population is increasing at a high rate due to the influx of people from all over Namibia and neighbouring countries. There are two national referral hospitals located in this region, namely the Windhoek Central Hospital and Katutura Intermediate Hospital. In these hospitals, the maternity departments each consist of one perinatal clinic, antenatal ward, postnatal ward, and a neonatal unit. There are seven perinatal clinics around Windhoek which offer perinatal care, but these clinics have no facilities for women to give birth. All women use the two maternity departments for deliveries. Both the hospitals provide tertiary care and receive referrals of high-risk pregnancies from the whole country. This is due to the unavailability of specialised equipment and personnel to handle high-risk pregnancies in the other regions. The maternal ward in the Windhoek Central Hospital provides services for both state and private patients.

The seven clinics functioning as satellite clinics within the Windhoek district are Katutura Health Centre, Khomasdal Clinic, Wanahenda Clinic, Windhoek Central Clinic, Katutura Clinic, Robert Mugabe Clinic, and Hakahana Clinic. However, the Robert Mugabe Clinic was turned into a COVID-19 clinic. Therefore, the researcher collected data at six clinics providing perinatal care around Windhoek. These government health facilities provide free services and are managed by midwives and doctors. The clinics are open during the morning hours from Monday to Friday. The total monthly perinatal visits in these facilities are around 477 visits. These sites were selected because they serve large populations and represent all nine Namibian tribes. The researcher considered these settings suitable for the study because they have established perinatal clinics where women can be easily accessed. Most people in Windhoek can communicate well in English as an official language, and participants had no problem answering the questions in English.

2.5 Research design

The researcher selected a qualitative, exploratory, descriptive, and contextual design for the study.

2.5.1 Qualitative

Qualitative research is a means of exploring and understanding people's conduct, perceptions, and views of the world in which they live (Creswell & Poth 2016:53). Researchers thus try to establish the meaning of a phenomenon from the participants' perceptions of social or human problems and experiences (Creswell & Plano-Clark 2018:48). Polit and Beck (2017:741) describe qualitative research as the "investigation of phenomena, typically in an

in-depth and holistic fashion, through the collection of rich narrative materials using a flexible research design”.

To understand their experiences and needs, the researcher focused on what was happening in the participants’ lives and was open to their insights. The researcher studied things in the participants’ natural settings, trying to understand the meanings participants attached to them. The study used a qualitative explorative, descriptive design with qualitative semi-structured interviews. This resulted in the exploration of perinatal depression in an in-depth and holistic manner. The researcher considered it appropriate for phase 1, where the aim was to understand the experiences and needs of women with perinatal depression and the experiences of healthcare providers working with women with perinatal depression in Namibia. The study also explored the barriers that prevent the assessment of perinatal depression. This design allowed the participants to share their understanding and perceptions of the phenomenon of perinatal depression. Therefore, emic data contributed to the development of contextual guidelines.

2.5.2 Exploratory

The study was exploratory since little is known about women with perinatal depression and the experiences of healthcare providers in Namibia. Creswell and Plano-Clark (2018:84) describe an exploratory (sequential) design as a three-phase mixed- design and researcher applied it multi design. The researcher begins with the collection and analysis of qualitative data, followed by a developmental phase of translating the qualitative findings into a tool that can be tested quantitatively. This implies that the participants’ views should inform the tool developed. Therefore, it emphasises exploring the phenomenon before the development phase (Creswell & Plano-Clark 2018:84). Accordingly, the researcher explored the participants’ views before developing guidelines to manage perinatal depression.

Phase 1 focused on gaining information on the experiences and needs of women diagnosed with perinatal depression as well as healthcare providers experiences and understanding of perinatal depression and the barriers preventing them from managing perinatal depression. In-depth interviews allowed the researcher to obtain rich information and the participants to relate the experiences in their own words. The study first explored the experiences and needs of women with perinatal depression and the experiences of healthcare providers regarding perinatal depression before developing perinatal depression guidelines.

2.5.3 Descriptive

Exploratory-descriptive-qualitative research focuses on describing the collected information rather than conceptualising or interpreting and aims to create an image of a situation as it

happens naturally (Hunter, McCallum & Howes 2019:4). The aim of descriptive research is to uncover the 'who, what and where' of events or experiences around the phenomenon (Hunter et al 2019:4). Since this study addressed more than one objective, the researcher wished to explore and describe the participants' needs, and experiences before applying the findings by developing the guidelines.

In Phase 1, an in-depth description was provided of the experiences and needs of women with perinatal depression and the healthcare providers' experiences of working with women with perinatal depression and its management. The descriptive design delivered a better understanding of how the phenomenon of perinatal depression was understood and viewed by the participants. Therefore, the participants' voices were central in identifying and describing what perinatal depression meant to them. The design allowed the participants to describe perinatal depression from their own cultural beliefs and propose interventions. In Phase 2, a description of the characteristics of guidelines for perinatal depression globally was provided. Phase 3 endorsed the development of perinatal depression guidelines, according to the six steps of NGT (Abdullah & Islam 2011:83). Finally, a detailed description of the perinatal guidelines was provided to manage perinatal depression.

2.5.4 Contextual

Qualitative research is naturalistic and context-based; thus, it focuses on natural settings where phenomena occur (Maree 2016:50). The phenomenon experienced by each person or group of people is unique to their context; it is, therefore, important to provide a thick description of the context under which the study was conducted (Grove et al 2013:67). In this study, perinatal depression was explored in the context of six public healthcare facilities because the researcher identified a need to develop contextual-based perinatal guidelines. This would allow healthcare providers in the setting to detect and manage perinatal depression.

2.6 Research methodology

This study used multi-methods that embraced a series of three interrelated phases to meet the purpose, which was to develop guidelines to manage perinatal depression in Namibia. In multi-method studies, two or more research methods are used in one project (Kasirye 2021:26). The findings are then triangulated to form a complete whole. In this study sequential triangulation was utilised when the results of one phase were used to inform the next phase.

Multi-method studies differ from mixed-method studies. Mixed methods combine qualitative and quantitative methods, while multi-methods could use two qualitative methods or use other methods, such as a systematic review, scoping review and nominal group technique (Kasirye,

2021:26). Multi-methods increase the odds of getting diverse and extensive research findings. In addition, multi-methods provide for the logical extension from the findings of the preceding phase so that the findings of each phase inform the subsequent one (Kasirye 2021:26).

In this study, the approach was predominantly qualitative because its overall thrust was inductive. The study was organised into three phases: Phase 1 informed Phase 2 and Phase 2 consequently informed Phase 3. Table 2.1 summarises the methodology used in the three phases. Phase 1 predominantly used a qualitative method within a constructivist paradigm (inductive reasoning) (Creswell & Poth 2016:53).

Table 2.1 Exploratory sequential multi-methods integration

	Phase 1 Explorative	Phase 2	Phase 3	Phase 3
Design Exploratory sequential	Qualitative	Quantitative	Qualitative Quantitative	Qualitative Quantitative
Methods Building: one database informs the data collection approach of the other	Semi structured interviews (n=21) women with perinatal depression Semi- structured interviews (n=18) healthcare providers Thematic analysis	Systematic review of guidelines used to manage perinatal depression	NGT (n=12) Introduction Silent phase Round-robin Serial discussion Voting and ranking of ideas	NGT (n=10) Refinement Rating of draft preliminary guidelines Recommendations from experts
Findings integration Databases displayed and compared	Support needs and health care needs of women with depression Experiences of managing perinatal depression	Guidelines to manage perinatal depression	Draft preliminary guidelines to manage perinatal depression	Final guidelines to manage perinatal depression

2.6.1 Phase 1: The experiences and needs of women with perinatal depression in Namibia

2.6.1.1 Participant recruitment

The study adopted the Edinburgh Postnatal Depression Scale (EPDS) tool, which has been used to screen for perinatal depression in low- and middle-income countries because of its accuracy, sensitivity, specificity, and clinical usefulness (Sheeba, Nath, Metgud, Krishna, Venkatesh, Vindhya & Murthy 2019:5; Chorwe-Sungani & Chipps 2017:103). The EPDS was used to identify women who met the criteria for perinatal depressive symptoms. The EPDS is specifically designed to identify ante- and postnatal depressive symptoms. It is a 10-item self-

reported questionnaire about feelings of depression experienced in the perinatal period rated over the past seven days. Participants select one of four possible responses (0–3) for each question to indicate the intensity of depressive symptoms in the previous week. The probable scores vary from 0 to 30 and higher scores indicate more symptoms of depression (Cox, Holden & Sagovsky, 1987; Lydsdottir, Howard, Olafsdottir, Thome, Tyrfinngsson & Sigurdsson 2019:45).

The advantage of the EPDS is that it is a self-report short questionnaire that can be administered by a non-specialist mental health practitioner. In this study, the researcher, who is not a mental health practitioner but a midwifery lecturer, administered the questionnaire. It is used in both clinical and research settings for antenatal and postnatal depression screening and can be completed in less than ten minutes.

The researcher provided information about the study at the study sites to the women in antenatal and postnatal waiting rooms during their routine health talk sessions and selected those who showed interest in participating. The queues for women attending perinatal care at the two main perinatal clinics, namely Windhoek Central Clinic and Katutura Clinics and from four clinics were also used as sampling frames. Women were randomly approached by the researcher in the waiting room and queues and asked to participate. The researcher informed the participants of the purpose and significance of the study, that participation was voluntary, and that they were free to withdraw from the study at any time should they wish to do so without any negative effect on the care received at the perinatal clinic. The participants were allowed to ask any questions they might have regarding the study and participation. They were given consent forms and allowed enough time to decide if they want to participate. The criteria for participation in the pilot study were women over the age of 18 and being able to read and speak English fluently, a woman who was in any trimester of her pregnancy or had given birth, and a neonate who was aged six weeks at the time of the study. Most of the women were happy to participate, and there were only few refusals. The researcher purposively selected 50 pregnant women and 50 postnatal mothers aged 18 years.

This was a pilot study, used to identify potential participants who met the criteria for inclusion in the study, and unfortunately the data were not used for statistical analysis. Therefore, only one hundred perinatal women were screened for depression using the EPDS English version. Women were included if they scored 10 or above on the EPDS (Cox, Holden & Sagovsky, 1987). Of the 100 participants screened, 38 screened positive for depression; 34 of the women scored 10 and above on the EPDS, four indicated suicidal thoughts. These women were

invited for semi-structured interviews, and 28 women agreed to participate in the study. Data saturation was reached after 21 interviews.

2.6.1.2 Population

A population is the whole group the researcher is interested in studying and meets the criteria (Polit & Beck 2017:249). In qualitative studies, a population consists of participants who have experienced the phenomenon of interest and can share information-rich accounts of their experiences (Grove et al 2013:67). In this study, the population consisted of women diagnosed with perinatal depression symptoms. The researcher targeted this population because they were experiencing perinatal depression, the phenomenon under study. To be included in the study, the women had to be.

- 18 years and older who scored 10 or more on EPDS with perinatal depression.
- Willing to participate in the study.
- Being able to read and speak English fluently, a woman who was in any trimester of her pregnancy or had given birth, and a neonate who was aged six weeks at the time of the study.

Women who were not diagnosed with perinatal depression did not wish to participate in the study or were younger than 18 years old were not included in the study.

2.6.1.3 Sampling and sample

The researcher used purposive sampling to select participants who represented the phenomenon under study (perinatal depression) (Creswell & Poth 2016:85). Purposive sampling was relevant to the conceptual framework and research questions and would generate rich information (Creswell & Poth 2016:85). Staller (2021: 898) explained that the term purposeful sampling denote getting rich Information from which the researcher can learn a great deal about issues of dominant significance to the purpose of the inquiry. The author add generating rich information yields insights and in-depth understanding rather than empirical generalizations.

In this study, sampling was based on the results of the EPDS with a score of 10 to identify potential participants. Since perinatal depression is a personal matter, it was difficult to reach the population without using the EPDS to identify women with depressive symptoms. Weller, Vickers, Bernard, Blackburn, Borgatti, Gravlee and Johnson (2018:15) state that if a researcher desires to attain most of the ideas that are relevant in a field of study, a small sample with extensive probing will be more productive than a large sample. Sim, Saunders, Waterfield and Kingstone (2018:25) argued, stating prior how many participants will be

required to create adequate understanding of what is as yet unknown as irrational. Creswell's (2013:157) positioned a sample size in qualitative studies depending on the qualitative design being used.

This study used a qualitative design with purposive sampling. The study sample size was anticipated to be 28 women with perinatal depression who scored above 10 or more on EPDS. One perinatal women was referred for management urgently because of the severe nature of her problem. Four pregnant women who had already waited a long time for their antenatal care refused to spend extra time for in-depth interviews following screening. Two postnatal woman refused to participate in the study.

The study interviewed 21 women with depressive symptoms. Data was collected from different sites determined by data saturation, which is referred as a point where all themes and categories have been generated, meaning no more new information being told as participants were repeating the same information (Creswell et al 2016:84). Because this was the first study of this nature conducted in the country, the researcher believed it was necessary to collect data from different sites to increase the credibility of the findings.

2.6.1.4 Pilot interview

A pilot study or pre-test is a small version of a proposed study conducted to develop or refine a data-collection tool to determine its feasibility. A pre-test or pilot study is a trial run to determine whether the instrument is clearly worded and free from major biases and whether it solicits the desired information (Brink, van der Walt & van Rensburg 2012:94). It provides an opportunity to try out the technique or instructions that will be used with an instrument, especially if the instrument has not been used with a specific population, as in the case of this study. The developed interview guide was piloted with two women who did not participate in the main study to determine the interview guide's feasibility. Based on their feedback and those from the study supervisors, the researcher modified the interview guide so that some questions were clearly phrased.

2.6.1.5 Data collection

Data collection includes field notes, journal records, interview transcripts, observations and focus groups intended to gather information to address research questions (Creswell & Poth 2016:76). In this study field notes and interview transcripts were used to gather information.

2.6.1.6 Semi-structured interviews

Data was collected by means of semi-structured interviews guided by an interview guide to allow the researcher a detailed picture of the participant's point of view about perinatal depression (Creswell & Poth 2016:77).

The interview guides were developed based on the study objectives and informed by the conceptual framework and literature review on perinatal depression. Some interviews with women were conducted in a board room and other in quiet and private rooms within the study settings. A total of 21 women with perinatal depressive symptoms took part in the study. Of the participants, 14 were antenatal and 7 were postnatal women. The interviews lasted between 20 and 60 minutes and were audio-recorded with the participant's consent. An interview guide (see Annexure C) that listed the main questions was used. The researcher used communication techniques to facilitate the semi-structured interviews, including clarifying, probing, reflecting, paraphrasing, and summarising. Field notes were also taken during each interview (Grove et al 2013:695).

The interviews allowed participants to present their life situations in their own words. Some participants who spoke Oshiwambo were allowed to express themselves in their native language for better expression as the researcher is fluent in the native language and later translated those sections into English. To ensure trustworthiness, the researcher used contextual interpretation, listened to the audio-recordings several times, and then translated the recording into English. When there was a question or ambiguity in what was said, the researcher replayed the recording several times, writing the words verbatim in Oshiwambo and then translating the written text into English.

Some participants experienced emotional discomfort, and the discussion was discontinued for a few moments to allow them to calm down. For example, participant 5 could not continue the interview due to emotional experiences and was discontinued. The participant was immediately referred to a social worker within the clinic for consultation and management. Participants who related emotional experiences were given time to calm down and asked if they were willing to continue with the interview. Participants agreed to continue with the interview.

To ensure the quality of data the researcher used field notes.

2.6.1.7 Field notes

Field notes refer to extra information obtained during the interviews with the participants and sometimes help researchers understand the data better. According to Polit and Beck

(2017:561), field notes are broader, more analytic, and more interpretive than simply describing occurrences through observing the participants.

In this study, the researcher took descriptive and reflective notes. The researcher took descriptive notes of participants' facial expressions during the interviews, such as sadness, head nodding, sudden mood changes, and when participants showed that they wanted to cry but tried to control their emotions or be stronger. The researcher took reflective notes on her thoughts and feelings during interviews. For example, the researcher tried to bracket her emotions as listening to participants' problems was difficult. In addition, the researcher tried not to give clues or interfere when participants were talking. The researcher noted down what happened during and immediately after data collection.

Table 2.2 Example of reflective field notes

During data collection during the semi-structured interviews, the researcher observed that most of the women were depressed. That was shown in the way they expressed themselves. Some spoke with anger while some started crying in the middle of the conversation. One woman was severely depressed and cried uncontrollably and the interview was discontinued. The participant was referred to a social worker within the facility. The researcher interviewed one woman who took almost one hour trying to describe how life was unfair to her and how she wished there was someone who could listen to her without judgment. As these women described the multidimensional causes of their perinatal depression, which included social relationships, socio-economic, psychological, cultural and biological risk factors that triggered their depression, it negatively affected the researcher. The researcher kept thinking about issues affecting women during the perinatal period. At times she wished the government could create employment for all to alleviate poverty and provide safe abortion for women with unwanted/unplanned pregnancies. This affected her emotional wellbeing because all human interactions and listening to others talk about their problem carry some amount of risk. However, the constructivist approach used in the study with its emphasis on reflexivity when collecting data and interpretations of data helped the researcher to keep aside her feelings and emotions. She re-directed her thoughts to be able to collect data that provided her with a greater understanding of perinatal depression. Reflexivity was further used to ensure that the interviewees' interpretations were interpreted without her influence.

The data was collected after the third wave of Covid-19, which negatively affected the country. The researcher ensured protocols were followed. Hand disinfectant was provided, and every participant wore a face mask. Social distance was maintained, fears focused on worries about catching Covid-19 during the interview. Social distance affected the social interaction such as comforting by hugging and rubbing. The researcher comforted the participants who needed emotional support at the time. The main emotional drivers of social distancing was guilty of not being able to give physical support or comfort such as hugging. Some of the facial expression was difficult to observe including sadness. Wearing of face masks might have affected speech intelligibility, facial recognition, listening effort, and

sentence recall. The researcher is of the opinion that the Covid-19 pandemic may have negatively influenced the findings of the study.

To ensure that data collection was free from the researcher's assumptions, opinions, biases and perspectives, reflexivity and bracketing were used.

2.6.1.8 Reflexivity

Reflexivity is the process of engaging in self-evaluation, analysing and noting down of personal values that might affect data collection and interpretation of the study findings (Polit & Beck, 2017:560). In this study, the researcher was aware of her knowledge of perinatal depression as a midwife. She was further aware of her own professional identity as midwifery lecturer. As a result, throughout the process reflexivity was maintained by keeping reflexive notes. In the reflexive notes, the researcher noted her assumptions, values, perspective, and her reflection on the research process itself. As she read and listened to the audio recordings from the interview, she tried to put aside her preconceived ideas and assumptions that came to her mind and focused on what was expressed by participants. Reflexive notes were maintained during interviews with women with perinatal depression, healthcare providers, and during the NGT interviews with stakeholders and experts. The researcher only incorporated her interpretations and opinions in the data discussion which was supported by the literature.

2.6.1.9 Bracketing

Bracketing is the process of recognising own thoughts, preconceived beliefs, ideas, opinions about the phenomena under the study (Polit & Beck, 2017:471). The process involved remaining neutral during data collection, analysis, noting down and putting aside personal prejudice. The researcher noted down her own thoughts, perspectives, avoidance of personal judgment, own beliefs, and knowledge about perinatal depression. In addition, she detached her feelings during the study, and throughout the study, self-reflection was maintained. Bracketing was maintained during interviews with women with perinatal depression, healthcare providers, and during the NGT interviews with stakeholders and experts. This meant the researcher identified what she expected to discover and intentionally puts aside all preconceived ideas about perinatal depression. During report writing, bracketing was ensured as the researcher avoided personal beliefs, remained neutral, and only recorded the quotes from the participants. This outlawed bias in the reporting of the findings.

2.6.1.8 Data analysis

Data analysis entails categorizing, ordering, manipulating, and summarizing the data and describing them meaningfully (Brink, van der Walt & van Rensburg 2012:97). The data analysis process followed thematic analysis of analysing qualitative data as proposed by Braun and Clarke (2006). Thematic analysis is a method for analysing qualitative data which includes interpretation in the process of choosing codes and coming up with themes and subthemes (Kiger & Varpio 2020:848). It brings all the data connected to a specific category or concept together in one place, making it easy to study the range and nature of the phenomenon under study (Mabuza, Govender, Ogunbanjo & Mash 2014:3).

There are two basic approaches for thematic analysis namely (1) an approach defined by an emphasis on coding reliability; (2) a more qualitative approach that advocates for a flexible approach to coding and theme development (Terry, Hayfield, Clarke & Braun 2017:5).

The researcher chose the thematic analysis as qualitative data analysis approach described by Terry et al (2017:7) as immersed on encouraging reflection, rigour, a systematic and greater depth of engagement, rather than focusing on coding. The authors added the thematic analysis approach is uniquely characterised by independence from any particular epistemological and ontological base. The thematic analysis approach was chosen as it stresses measures for ensuring the reliability and objectivity, and encourages the use of reflexivity. This flexibility is partially what separates it from other qualitative analyses. In addition, the thematic analysis approach was applicable in phase 1 of the study as the researcher employed inductive reasoning. Inductive reasoning is often described as a 'bottom-up' approach to knowing. This is because Phase 1 entailed an exploration of the experience's and needs of women with perinatal depression and experiences of healthcare providers working with women with perinatal depression. In phase 1 the researcher required to work from the bottom up by interacting with purposely selected participants to obtain rich information and comprehensive themes emerged inductively from organising data (Creswell, 2013:45). This implied the researcher did not start with presumed ideas, reality or assumptions, but with observation.

The researcher analysed the data following Clarke and Braun's (2006) six steps: The researcher had chosen Clarke and Braun's (2006) six steps because it's in an orderly manner, clearly stated and particularly helpful for the beginner. The following steps were followed during the data analysis process.

- **Familiarize yourself with the data**

The first step involved reading through the data more than once to familiarise herself and get a clear picture of the data. The researcher familiarized herself with the data by listening to the audio-recordings, reading the transcripts, and took notes of key ideas as they emerged. During this step, the researcher noted her own thoughts, perspectives, and beliefs about the phenomenon under study so as not to influence the findings.

- **Generate initial codes**

In this step, the researcher used inductive analysis with open coding and developed and modified the codes as she worked through the coding process.

- **Search for themes**

In this step, the researcher examined the coded data and collected data extracts to look for potential themes of wider significance. Then, the researcher started to analyse, combine, and compare codes related to one another. Codes were organised into broader themes that reflected the research questions. In order to fully reflect the research questions and contents, subthemes were formed under each theme. The themes were descriptive and described patterns in the data, which gave meaning to specific questions.

- **Review themes**

In this step, the researcher reviewed, modified, and developed the preliminary themes that were identified. She checked whether themes, sub-themes, and data matched and revised them accordingly.

- **Define and name**

This step allowed the researcher to determine what aspect of the data each theme captured and identify why it was important. During this step, the researcher defined and refined the themes to determine whether the theme contained sub-themes. This process was followed by a detailed description of each theme to identify the meaning each theme represented.

- **Produce the report**

Writing is an essential part of the analytic process in thematic analysis. The researcher did a final analysis and description of findings supported by quotations from participants. References from a literature review further supported the discussion.

2.6.2 Phase 1: Objective 2 – Explore and describe healthcare providers' experiences of perinatal depression

2.6.2.1 Population

The researcher collected information from different healthcare providers, including midwives' doctors and social workers, employed at the seven perinatal clinics and two maternity hospitals.

2.6.2.2 Sampling and sample

The researcher purposively selected healthcare providers caring for women during the perinatal period: midwives, maternity managers, doctors, and social workers from the seven perinatal clinics and two maternity hospitals. According to Polit and Beck (2017:493) purposive sampling select participants with a broad range of variation. Participants are selected because they have some defining characteristics that make them suitable for the study. To be included in the study, the participants had to be healthcare providers who were involved in perinatal services and had two years of past experience. The researcher did predetermine 2 year past of experience to gather rich information from the participants. In addition to the stipulated sampling criteria, the researcher also considered the hospitals and clinics of the potential participants in order to ensure information is collected from different hospitals and clinics. This might increase the transferability of the study findings.

Exclusion criteria were healthcare providers who had been working for less than 2 years as they might be more knowledge about perinatal depression. Data saturation was achieved after 18 interview when no new information emerged.

2.6.2.3 Data collection

In this study, the data were collected through semi-structured individual interviews. All interviews were audio-recorded after permission was obtained from the participants. The researcher conducted semi-structured interviews in English with 18 healthcare providers until data saturation was reached. The interviews lasted between 30 and 35 minutes.

The developed interview guide was piloted with three midwives and one doctor who did not participate in the main study to determine the interview guide's feasibility. Based on their feedback and those from the study supervisors, the researcher modified the interview guide so that some questions were clearly phrased.

The interviews with the patients were conducted in the same way as those in phase 1 (see section 2.6.1.6).

2.6.2.4 Data analysis

The researcher used the same process for data analysis as for objective 1 (see section 2.6.1.8).

2. 6.3 Phase 2: Conduct a systematic review of current global guidelines to manage perinatal depression

In phase 2, the researcher reviewed various literature sources on guidelines used to manage perinatal depression globally. This assisted the researcher in identifying existing evidence on guidelines to manage perinatal depression. A systematic review of all available national and international perinatal depression guidelines was conducted.

2.6.3.1 Sampling

The researcher conducted a systematic, electronic literature search of PubMed, Google Scholar, Cochrane library, Cumulative Index of Nursing and Allied Health Literature (CINAHL), National Guideline Clearinghouse (NGC), National Institute for Health and Care Excellence (NICE) and relevant websites in English-speaking countries including the Royal College of Obstetricians and Gynaecologists (RCOG), Royal Australian College of General Practitioners (RACGP) and the American Academy of Paediatrics (AAP) for perinatal guidelines (see chapter 4 for discussion). The literature review covered:

- Perinatal guidelines addressing perinatal depression.
- Written in English
- Published between 2010 and 2020.

To avoid documents not meeting the quality criteria, consensus statements, reports, perinatal mental programmes, dissertations, and articles were excluded from this review.

2.6.3.2. Data collection

The researcher used the recommendations from the PRISMA flow chart (2020) for systematic reviews and meta-analyses, following four phases of searching and selecting appropriate guidelines.

A systematic, electronic literature search of PubMed, Google Scholar, Cochrane library, Cumulative Index of Nursing and Allied Health Literature (CINAHL) was conducted. Date limits

were set from 2010 to 2020 in expectation that a wider search period might yield many relevant perinatal guidelines based on recent evidence and not be outdated. After the first search the researcher realized that guidelines are rarely published in medical journals and conducted a wider search for guidelines in specific databases such as the National Guideline Clearinghouse (NGC) and National Institute for Health and Care Excellence (NICE) and relevant college websites in English-speaking countries, including the Royal College of Obstetricians and Gynaecologists (RCOG), Royal Australian College of General Practitioners (RACGP) and the American Academy of Paediatrics (AAP). The researcher also searched reference lists of identified guidelines. When searching these databases, the following terms were used: perinatal guidelines; manage perinatal depression; perinatal depression; depression; postpartum depression, and perinatal mood disorders.

2.6.3.3 Review process

After the first search, duplicates and irrelevant publications (conferences, congresses, editorials, commentaries, reviews, and old guidelines) were removed.

2.6.3.4 Quality assessment

The final seven selected guidelines consisted of tools used to screen for perinatal depressive symptoms, assessment of psychosocial risk factors, and interventions to manage perinatal depression. All guidelines were studied and tabulated according to the guideline, country of origin and year of publication, screening for perinatal depression, screening tool for perinatal depressive symptoms, culturally appropriate screening for depression and suitability for low-resource settings.

To accurately evaluate the quality of each guideline selected for this review, the researcher followed five quality domains of the Appraisal of Guidelines for Research & Evaluation Instrument (*AGREE II*) suggested by Brouwers, Kho, Browman, Burgers, Cluzeau, Feder, Fervers et al (2017), namely scope and purpose, stakeholder involvement, rigour of development, clarity and presentation, and applicability. The quality assessment involved reading through the full text of the guideline and evaluating each guideline according to the six quality domains. The best practice guidelines which included perinatal depression were rated on a 7-point scale with 7 for 'strongly agree' to 1 for 'strongly disagree (see chapter 4 for discussion).

2.6.3.5 Data analysis

A descriptive evaluation of each publication was presented in tabular format, including the country, date of publication, development process, population under study, interventions, and outcomes (see chapter 4).

2.6.4 Phase 3 Development of guidelines to manage perinatal depression

2.6.4.1 Methods

Phase 3 used the findings of phases 1 and 2 to draft and develop the guidelines, using a modified nominal group technique (NGT) (Delbecq & Van de Ven, 1975; Abdullah & Islam, 2011).

2.6.4.2 Setting

The researcher arranged a venue at a Windhoek central maternity hospital where the two workshops for the NGT were conducted.

2.6.4.3 Population

The first category of stakeholders were healthcare providers (midwives, doctors, social workers, and healthcare managers) who had direct contact with and interacted with women with or at risk for perinatal depression. These participants worked in different positions at state perinatal care settings in the Windhoek district, and some were midwifery educators at the University of Namibia.

2.6.4.4 Sampling and sample

According to Humphrey-Murto, Varpio, Gonsalves and Wood (2017:15), the NGT generally includes five to 12 participants. The researcher purposely invited 12 stakeholders, namely five registered nurses and midwives, two nursing managers, two doctors, and one social worker, to draft the preliminary guidelines to manage perinatal depression. They worked in the public sector in identified government maternity hospitals and clinics and two were lecturers from the University of Namibia's Midwifery Department. The participants had a midwifery background and more than five years of experience in perinatal care or mental health within the Namibian framework. The participants were considered to have vast of knowledge and contributed richly on guidelines development.

To be included in the study, the participants had to be:

- Healthcare providers, namely midwives, doctors, nursing managers and social workers, with five or more years of experience with women during the perinatal period.
- Nurse educators from institutions of higher learning.

Participants who were unable or willing to participate in the study or had less than five years' experience were excluded from the study.

2.6.4.5. Pilot study of NGT interview guide

The NGT interview guide was tested with two midwives and one doctor who were not included in the main study. After the presentation, participants recommended that women should be screened of perinatal depression and psychosocial risk factors that put women at risk of depression. The interview guide was amended according to the participants' feedback, as discussed with the study supervisors.

2.6.4.6. Data collection

The NGT consensus method is intended to generate information in research that could be used to solve problems and develop guidelines. Before the workshops, the researcher consulted the study supervisors to be guided on the content and format of the workshop. The stakeholders who participated in the workshops signed informed consent forms before participation.

2.6.4.7 Preparation for the nominal group technique (NGT)

The researcher reserved a boardroom at Windhoek Central Hospital, large enough to accommodate all participants, with tables and chairs arranged in a U-shape. Each participant was provided with a pen and an A4 sheet. A flip chart was placed at the open end of the U-shape. The key steps of the NGT outlined by Abdullah and Islam (2011:83) were adapted in the process of data collection and analysis.

The five steps of the NGT (Abdullah & Islam, 2011:83) used in the study are described in Table 2.3.

Table 2.3 NGT steps

Step 1 Opening session

The participants completed a registration form, including their demographic profile: their names, contact details, occupations, years of service, and experience. The researcher welcomed the participants and thanked them for attending. The researcher informed the participants that the aim of the workshop was to draft and develop guidelines to manage perinatal depression and explain the rules of the NGT session. The participants were also informed that the researcher had obtained ethical approval from the Ethics Committee of the Faculty of Health Sciences, University of Pretoria in South Africa (see Annexure A) and the Ministry of Health and Social Services Ethics Review Committee, in Namibia (see Annexure B).

Evidence generated in phases 1 and 2 was shared with participants. See Chapter 3 for a discussion of themes from phase 1 and Chapter 4 for perinatal guidelines from the literature review in phase 2. The participants were given hard copies of the findings, including two tools, namely, the Edinburg Postnatal Depression Scale (EPDS)

used to screen for perinatal depression and the Antenatal Risk Questionnaire (ANRQ) to assess psychosocial risk factors. The workshop consisted of 12 participants divided into three groups. Each group consisted of four members. The researcher allowed the participants to read the copies of the findings for 20 minutes.

Step 2 Silent generation of ideas in writing

The researcher provided each participant with a sheet of paper with the following four questions:

Question 1: Why is it necessary to develop guidelines to manage perinatal depression?

Question 2: What should guidelines to manage perinatal depression in Namibia entail?

Question 3: What type of guidelines must be used to manage women diagnosed with perinatal depression?

Question 4: What about the acceptability and feasibility of the guidelines?

Participants were asked to write each answer (idea) on the worksheet and record their views, whether they confirmed, amended, or contrasted with the preliminary research findings. During this period, participants were discouraged from consulting or discussing their answers with others.

Step 3 Round robin

The researcher invited the participants to share the answers that they had recorded. The researcher asked each participant to read one answer from their worksheets. This process continued until all the answers to the questions were recorded. The participants were reminded not to repeat answers that had already been given or shared with the group. This was done to ensure that all participants had an equal chance to make an equal contribution. This task took about 40 minutes.

Step 4 Serial discussion of the ideas

This phase helped participants to express the meaning of each idea and their understanding of the logic behind the idea and its relative importance. All ideas were debated, clarified, and listed on the flip chart to ensure that informed decisions were made when voting. Data analysis was done during this step, as in 2.7.4.2. This task took about 40 minutes.

Step 5 Voting to select the most important ideas or ranking of ideas.

The researcher provided participants with five index cards each. The participants were asked to select the five ideas (themes) listed on the flip chart which they felt were very important for the guidelines and to record each

on a separate index card. This step provided a final opportunity for participants to revise their judgments. The researcher played an active role in this area to ensure as high a response rate as possible and that participants did not lose interest. The researcher collected the records for analysis. This task took about 60 minutes.

2.6.4.8 Data analysis

The data collected in Step 3 of the NGT were analysed during Step 4. The researcher and stakeholders categorised the ideas generated based on the questions in the NGT. All ideas were categorised by thematic analysis, and the ideas presented in different statements were changed into statements that used similar words to allow comparison during analysis. Similar ideas were grouped into themes and subthemes.

After the NGT, the researcher analysed the transcripts of the NGT to provide additional context, such as the underlying rationale for individual themes and related discussion in the clarification phase. The researcher considered themes across the entire group rather than only the top five priorities. This allowed the researcher to examine the importance of a theme in the question. This method is believed to inform policymakers on the themes of particular significance whilst providing insight that allows targeted improvement (McMillan, Kelly, Sav, Kendall, King, Whitty, & Wheeler 2014:106).

The first main group of findings included answers to question 1, stakeholders' views on the rationale for developing guidelines to manage perinatal depression. Under this group of findings, the researcher also had certain prerequisites for the guidelines that participants mentioned during the NGT (see chapter 5, Table 5.2). The second main group of findings included answers to question 2, stakeholders' views on what the guidelines should entail (see chapter 5, Table 5.3). The third main group of findings included answers to question 3, namely the stakeholders' views of the type of guidelines used to manage perinatal depression (see chapter 5, Table 5.2). The researcher with the stakeholders read the statements and generated two themes and eight sub-themes as the answers to question 1 (see chapter 5, Table 5.2).

This was followed by quantitative data analysis. The participants were asked to rate the main themes using a 5-point Likert scale according to their significance. The total and average were calculated to determine the importance assigned to each theme by participants. This assisted the researcher to finalize the draft guidelines to manage perinatal depression in Namibia. A total of eight themes and 12 sub-themes emerged as answers to question 2 (see chapter 5,

Table 5.4). For question 3, one theme, and two sub-themes emerged (see chapter 5, Table 5.4).

This task took 40 minutes to complete, and the researcher concluded the workshop by thanking the participants and inviting them to attend the next workshop for ratification of the revised guidelines to manage perinatal depression in four weeks' time.

2.6.5 Integration of findings of phases 1, 2 and 3

Multi-method findings can be integrated using four techniques, namely data transformation or conversion, visual presentation of data using a matrix or joint display, following a thread, and triangulation or comparison of data sets (Johnson, Grove & Clarke 2019:302). A main feature of data integration could be the visual presentation (joint displays) of data and the synthesis or merging itself. The integration technique was developed for mixed -methods but the researcher applied it in a multi-method study. Therefore, this study employed a joint display to integrate the multi-methods (Johnson, Grove & Clarke 2019:302). Joint display analysis is an iterative process of developing successive visual presentations of associated aspects of the qualitative and quantitative findings to discover the optimal visual representation for conveying the integrated findings (Haynes-Brown & Fetters, 2021:2).

Figure 6.1 and Table 6.2 in Chapter 6 summarise the integration of findings of Phase 1, 2 and 3. Table 2.1 indicates the flow of the study phases.

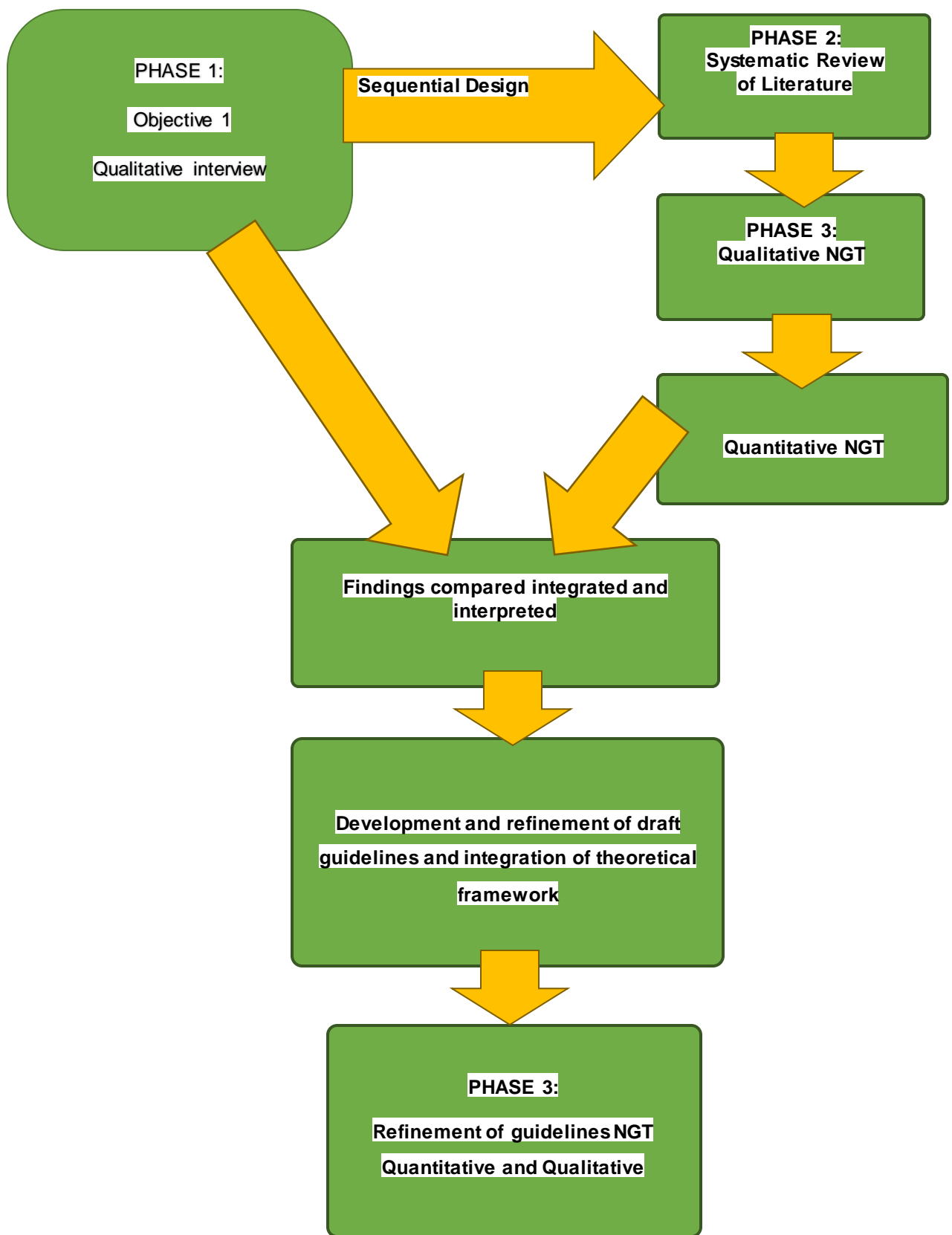


Figure 0.3 Integration of findings of Phases 1, 2 and 3 using an exploratory sequential research design (multi-methods).

2.6.6 Methodology for guideline development

The researcher used the *AGREE II* tool to ensure the quality of the guidelines throughout the study phases. The tool offers a methodological strategy for the development of guidelines to inform what information was found and how the information should be reported in guidelines (Brouwers et al 2017:1).

2.6.6.1 Overview of structure and content of AGREE II

The *AGREE II* structure consists of 23 items organized into six domains (Brouwers et al 2017:1-2). Each domain captures an exceptional dimension of items that would guarantee the quality of guidelines. Table 2.4 summarizes the structure and content of *AGREE II* and lists how *AGREE II* was implemented in this study.

Table 0.4 Structure and content of *AGREE II* as implemented

DOMAIN	ITEMS	IMPLEMENTATION
Domain 1: Scope (Criteria 1) Purpose (Criteria 2)	1. Description of overall objective(s) of guidelines. 2. Health question(s) covered by guidelines. 3. Description of the population to whom the guideline is meant to apply.	1. Description of overall objectives of guidelines is stated in Chapter 6 section 6.2.1. 2. Not applicable. 3. Population to whom the guideline is intended to apply is described in chapter 6 section 6.4.1.
Domain 2: Stakeholder involvement (Criteria 3)	4. Relevant professional groups included in guideline development. 5. Target population views and preferences were sought. 6. Target users of the guidelines clearly defined. 7. Potential organizational barriers to applying the recommendations were discussed.	4. Relevant healthcare providers were included in the guideline development in Chapter 6; section 6.4.2. 5. The views of women diagnosed with perinatal depression and healthcare providers were sought in chapter 3 and the views of stakeholders were sought in Chapter 5. The views of experts were sought in chapter 6. 6. Target users of the guidelines were clearly described in chapter 6 section 6.4.1. 7. Potential organizational barriers to applying the recommendations were discussed in chapter 6 section 6.5.
Domain 3: Rigour of development Validity (Criteria 4) Reliability (Criteria 5)	8. Systematic methods were used to search for evidence. 9. Strength and limitations of evidence clearly described. 10. Methods for formulating the recommendations are clearly described. 11. Health benefits, side effect, and risks have been considered in formulating the recommendation.	8. Evidence was searched for using systematic methods see chapter 6 section 6.4.3. 9. Not applicable. 10. Not applicable 11. Not applicable 12. Links are indicated in recommendations in chapter 7

	12. Explicit link between the recommendations and the supporting evidence. 13. Review of guidelines by experts.	13. Guidelines are reviewed by experts in chapter 6 14. Not applicable
	14. Provision of procedure for updating guidelines.	
Domain 4: Clarity of presentation (Criteria 6)	15. Specific and unambiguous recommendations. 16. Different options for management of conditions or health issues. 17. Recommendations are easily identifiable.	15. Recommendations are specific and free from ambiguity chapter 6 see section 6.4.4. 16. The guidelines is about management of perinatal depression chapter 6 see section 6.4.4 . 17. See chapter 7
Domain 5: Applicability (Criteria 7)	18. Guidelines provide advice/tools on how the recommendations can be put into practice. 19. Guideline describes facilitators and barriers to its application. 20. Potential resource implications of applying the recommendations have been considered. 21 Guidelines presents monitoring/auditing criteria.	18. Guidelines described interventions to be implemented into practice Annexure N. 19. Not applicable. 20. Implications of applying the recommendations have been described in chapter 6 21. Not applicable.
Domain 6: Editorial independence	22. Views of the funding body have not influenced the content. 23. Competing interests of guideline development group members have been recorded and addressed.	22. No funding body. 23. No competing interests.

Adapted from *AGREE II* (Brouwers et al 2017:7)

2.6.6.2 Refinement of the guidelines

The stakeholders in the NGT developed draft preliminary guidelines based on the findings of the semi-structured interviews with women with perinatal depression and the healthcare providers and the systematic literature review. The researcher further developed these draft preliminary guidelines by incorporating the findings of phases 1, 2 and 3, ensuring that all findings were reflected in the guidelines. The researcher also integrated the conceptual framework to make sure the guidelines contained all the components of individual stress vulnerability, depression, and health outcomes in women with perinatal depression.

The draft of the proposed guidelines to manage perinatal depression was reviewed by a group of experts for consideration, refinement, and endorsement during the second NGT workshop in order to obtain reliable guidelines. The experts were asked to consider and rate the guidelines and reach a consensus on what guidelines to manage perinatal depression should entail. The second workshop was held on 22 September 2022 and took four hours.

2.6.6.3 Population

The researcher invited 12 experts who met the inclusion criteria. The participants were all Namibian experts in perinatal care, policy, and guideline development. No international experts were invited because the guidelines were developed for Namibian culture and conditions.

2.6.6.4 Sampling

The researcher used purposive sampling to invite the experts based on their research expertise and field of specialization. The researcher invited the experts by email and telephone. Of the 12 experts, 10 agreed to participate, namely academic researchers, midwives, an obstetric medical practitioner, and a nurse manager. The researcher considered 10 expert participants sufficient to reach a consensus as recommended by Humphrey-Murto, Varpio, Gonsalves and Wood (2017:15).

To be included in the study, the participants had to be:

- Specialized healthcare providers in perinatal care and mental health, midwives, doctors, social workers, and nurse managers.
- Academics, such as lecturers, are knowledgeable about perinatal care and experienced in the field of research and guideline development and refinement.
- Willing to participate in the study.

2.6.6.5 Data collection

The aim of second workshop was the refinement and rating of the draft guidelines. The venue for the second workshop was the maternity boardroom at Windhoek Central Hospital.

a) Opening session

The participants completed a registration form, including their professional qualifications, occupation, employer, and experience in the field of perinatal care. The researcher welcomed the participants, thanked them for attending and informed them that the aim of the workshop was to refine and rate the guidelines for managing perinatal depression. The researcher then explained the rules and six steps of the NGT (Abdullah & Islam 2011:83) (see Table 2.2).

b) Silent generation of ideas in writing

Copies of the summarized draft guidelines were given to the participants. The participants were presented with guidelines to evaluate using a Likert scale, which should be rated according to seven criteria based on its purpose scope, stakeholder involvement, clarity,

validity, reliability, and applicability. Each guideline was rated by indicating the level of agreement based on the criteria. The level of agreement ranged from 1 = Strongly disagree, 2 = Disagree 3 = Agree to 4= Strongly agree.

The participants were asked to read through the draft guidelines and recommendations and make suggestions to improve the developed guidelines or re-formulate the guideline statements in the space provided for comments at the end of each section.

c) Round robin

The researcher invited the experts to share the answers that they had recorded. The researcher asked each expert, one after another, to read one comment from their guidelines. This process continued until all comments were recorded (Abdullah & Islam 2011:83; McMillan et al. 2014:96). Experts were reminded not to repeat the comments that had already been mentioned or shared.

d) Serial discussion on the ideas

After the researcher had written all the comments on the flip chart for each guideline, the experts were given a chance to discuss, clarify or debate comments. They were given equal opportunity and were advised to express their views freely. Each expert was advised to justify the comment when discussed. This assisted the participants in giving the reason for or meaning of the comment and their understanding of the logic behind the comment and its relative significance.

All eight guidelines and recommendations were evaluated and rated against seven criteria, namely purpose, scope, stakeholder involvement, reliability, validity, clarity, and applicability. Accordingly, the participants had to read and confirm whether the guidelines were relevant to practice and fitted the Namibian context. The participants debated and discussed the comments until a consensus was reached, and the participants agreed on refining the guidelines. All the inputs received during the discussion were recorded in preparation for modification.

2.6.6.6 Data analysis

All comments were categorised through thematic analysis and grouped into themes. Data analysis was also done according to the expert participants' rating of the guidelines.

The number of ratings was reported in table format according to the level of agreement, using a four-point Likert scale (see chapter 6, Table 6.6). A quality score was calculated for each of the eight guidelines using the seven criteria (Brouwers et al 2017:10). Scores were calculated by adding up all the scores of the participant items and scaling the total as a percentage of possible maximum score (Brouwers et al 2017:9-10). This rating of guidelines represented sufficient analysis, as it provided the researcher with a quantitative measure of the quality of the guidelines.

The following formula was adopted and used to calculate the consensus rate:

Maximum possible score = 4 (strongly agree) x 7 (items) x 10 (appraisers) = 280

Minimum possible score = 1 (strongly disagree) x 7 (items) x 10 (appraisers) = 70

Maximum possible score - minimum possible score.

Quality guidelines were deemed those with a score of 70% and above.

2.6.6.7 Modification of the guidelines based on the experts' responses.

The guidelines were modified based on the comments of the participants.

2.6.7 Trustworthiness

Rigour, also known as the strength of qualitative research, refers to the degree to which results accurately reflect the research participants' perspectives and experiences (Brink, van der Walt & van Rensburg 2018:157). In this study, rigour was ensured through trustworthiness (Lincoln & Guba, 1985). Trustworthiness is the extent to which researchers have confidence in their data-collection methods and analysis, and is determined using credibility, dependability, confirmability, transferability, and authenticity (Polit & Beck 2017:421).

2.6.7.1 Credibility

Credibility is a criterion for evaluating integrity and quality in qualitative studies, referring to confidence in the truth of the data and interpretations of findings (Polit & Beck 2017:560). Grove et al (2013:502) describe credibility as the degree to which study findings depict the views, perceptions, and experiences of participants. In this study, the researcher ensured credibility through audio recording of the face-to-face interviews. The field and observational notes and techniques, such as probing, allowed the researcher to gain a deeper understanding of the needs and experiences of women diagnosed with depression, and the experiences of the healthcare providers and stakeholders' barriers to managing perinatal depression. A rich, thick description of the data and context also ensured the credibility of the results.

Authority of the researcher: The researcher has a Masters degree in Nursing Science and was supervised by one senior researcher specialising in Nursing Science and in Midwifery respectively. In addition, she attended various online postgraduate research and methodology lessons offered by the University of Pretoria. Moreover, the study was guided and supervised by two professors working at the University of Pretoria. All these are proof that shows the researcher's authority.

2.6.7.2 Dependability

Dependability refers to the transparency of the research process and audit trail. Polit and Beck (2017:401) describe dependability as the stability or constancy of data over time and conditions. If a study is dependable, the research findings will remain unchanged should the study be repeated in different settings with different participants. To ensure dependability in this study, the researcher provided an audit trail. An audit trail is a comprehensive account of the research process, which includes documentation of steps and decisions taken throughout the study (Grove et al 2013:502). In this study, dependability was ensured by data consistency and usability, where the researcher demonstrated the truthfulness of the data collected and analysed. The researcher kept accurate records of all steps that were followed, and this was done in a manner whereby it would be possible to retrace all the research steps (Polit & Beck 2017:559).

The two research supervisors acted as an independent coders and separately coded the data. Meaning the audiotaped, the transcript of verbatim interviews and field notes were analysed by expert in qualitative research and conducted an independent analysis (Creswell, 2013: 253). The researcher and supervisors met to validate and reach consensus on the final themes extracted from the collected data. This was vital in ensuring confirmability of the data collected (Polit & Beck, 2017:591). The researcher had put her assumptions aside and dismissed all her past experiences on perinatal depression

Data saturation : Data saturation refers to the state when no new themes and sub-themes or information coming forth and redundancy is reached (Polit & Beck, 2017:497). In this study the researcher interviewed the participants until she had realized that no more new information emerged as participants were repeating the same information (Creswell et al 2016:84). Moreover, data saturation was indicated, and when all data were being analysed, there was no new or unique themes and sub-themes emerged from the quotations.

2.6.7.3 Confirmability

Confirmability, also known as objectivity, is the degree to which the data represent the information provided by the participants and that the researcher has not manipulated the interpretation of the data (Polit & Beck 2017:560). According to Polit and Beck (2018:296), confirmability, also defined as the objectivity of data, is necessary to sound the actual voice of the participants in the study. This convinces the study's audience that a researcher's assumptions, biases, and experiences did not influence the findings. Accordingly, the researcher bracketed her feelings, beliefs and perceptions of perinatal depression and remained neutral or objective throughout the study. The researcher perceived the participants with perinatal depression as the main contributors as they shared their needs and ideas, and the midwives and health care providers as colleagues who helped to address the identified gap. Confirmability was also ensured by keeping an audit trail depicting the steps taken to collect, organise and analyse data.

2.6.7.4 Transferability

Transferability refers to the extent to which findings can be transferred or have applicability in other settings or groups (Polit & Beck 2017:560; Mabuza et al 2014:3). In this study, the researcher provided a detailed description of the context, sample, and findings to enable other researchers to replicate the study for other settings. Thick descriptions promote credibility and allow other researchers to assess the degree to which the researcher's decisions are transferable to different settings, situations, and populations (Brink, van der Walt & van Rensburg 2018:159). Purposive sampling increased transferability since the information was collected from women with perinatal depressive symptoms and healthcare providers to obtain rich information (Polit & Beck 2017:741). The findings were made available with supporting quotations from participants during interviews. Hence, other researchers or healthcare professionals would be able to conclude whether the guidelines developed in the study could be transferred to other settings (Creswell & Poth 2016:123).

2.6.7.5 Authenticity

Authenticity refers to the degree to which researchers faithfully and fairly show a range of realities. Authenticity expresses the tone of the participants' lived experiences and fairly describes their experiences so that it is a truthful picture of their perceptions and experience (Polit & Beck 2017:560). Researchers strive to conduct well-designed research to generate well-founded and trustworthy evidence (Brink, van der Walt & van Rensburg 2018:157). In this study, the researcher was open and thorough, kept field notes and transcribed audio-taped data. All data collected were analysed to ensure the truthfulness and honesty in the findings

and interpretation so that sound conclusions were drawn from the study. The study revealed the needs of the participant women with perinatal depression and healthcare providers' experiences working with women with perinatal depression.

2.7 Conclusion

This chapter discussed the conceptual framework, paradigm, philosophical assumptions, methodology and rigour of the study. Chapter 3 discusses the findings of phase 1 of the study.

CHAPTER 3 PHASE 1: DATA ANALYSIS, INTERPRETATION, AND FINDINGS

3.1 Introduction

Chapter 2 described the methodology of the study. This chapter discusses the data collection and analysis and findings of Phase 1. The objectives of phase 1 were to:

- Explore and describe the experiences of women with perinatal depression.
- Explore and describe the needs of women with perinatal depression.
- Explore and describe the healthcare providers' experiences of working with women with perinatal depression.
- To explore and describe the barriers to manage perinatal depression in Namibia.

3.2 Explore and describe the experiences and needs of women with perinatal depression in Namibia.

The researcher explored the experiences and needs of women with perinatal depression by means of face-to-face interviews. Table 3.1 presents the demographic profile and Table 3.2 presents the themes and sub-themes for objective 1. The researcher used numbers for the participants, with P1 representing participant 1 up to P21 representing participant 21. The findings include the main themes, sub-themes and direct quotes from the participants supported with literature that was reviewed by the researcher. Direct quotes are indicated in italics. Field notes are indicated in bold, italics, underlined and in brackets.

3.2.1 Participants' demographic profile

The researcher interviewed 21 women with perinatal depression. Data saturation was reached after 17 interviews, but the researcher interviewed four more participants to ensure no new data emerged. The participants' ages ranged between 18 and 41 years old. Of the participants, four were between 18 and 19 years old, which is regarded as adolescent pregnancy; two were between 20 and 25 years old, and 15 were between 26 and 41 years old. Of the participants, six were employed and 15 were unemployed. Of the participants, 14 had antenatal depression and seven had postnatal depression.

Table 3.1 Participants' age, employment status, and depression type

Age		Employment status		Depression type	
18-19	4	Employed	6	Antenatal depression	14
20-25	2	Unemployed	15	Postnatal depression	7
26-41	15				
TOTAL	21		21		21

TABLE 3. 2 OBJECTIVE 1 THEMES AND SUBTHEMES

Themes	Sub-themes
1. Awareness of depression	1. Manifestations of perinatal depression 2. Conceptualisation of perinatal depression 3. Suicidal ideations
2. Effects of depression on activities of daily living	1. Difficult to perform daily tasks 2. Social isolation 3. Feelings of disappointment 4. Effects on the family
3. Multidimensional causes of perinatal depression	1. Financial struggles 2. Unemployment and poverty 3. Lack of social and emotional support 4. Gender-based violence 5. Paternity denial and rejection 6. Issues of adolescent pregnant women 7. Unplanned or unwanted pregnancy 8. The effect of being HIV-positive during pregnancy.
4. Factors contributing to or exacerbating perinatal depression	1. Emotional instability 2. Fear of losing current pregnancy 3. Fear to be judged by society/ Stigmatisation 4. Chronic illness 5. Dwelling on thoughts
5. Interpersonal factors that have a negative or positive influence on perinatal depression	1. Living in toxic or abusive relationship 2. Positive experience
6. Coping mechanisms used by women with perinatal depression	1. Spiritual coping 2. Distraction 3. Self-reliance and resilience 4. Social and social support
7. Support needs of women with perinatal depression	1. Social needs 2. Health care support
8. Health care needs of women with perinatal depression	1. Create awareness about depression 2. Screening for perinatal depression 3. Pharmacology intervention 4. Need for privacy and confidentiality 5. Follow up visits.

3.2.2 Theme 1: Awareness of depression

Depression in this theme is described as understood or expressed in local language and culture and unique to each participant. Women may use culturally applicable phrases/idioms to express their experiences and understanding of perinatal depression. Awareness of depression emerged as the first theme with three sub-themes, namely manifestations of perinatal depression, conceptualisation of perinatal depression, and suicidal ideations.

3.2.2.1 Manifestations of perinatal depression

The participants recognized and described the symptoms of depression they experienced. The participants described their emotional problems and somatic symptoms, including insomnia, sadness, irritability, fatigue, sleeplessness, headache, loss of appetite and weight loss. According to participants,

P1: It's when you are unable to sleep, sad most of the time, easily irritated.

P11: I think depression to me it means going through a lot of stress or pressure that is uncontrollable, then your head will start paining and feeling body weakness or just getting weaker and weaker day by day because is getting me very tired and I can't have enough sleep. I am tired and I am supposed to have enough sleep, but I can't sleep. The fact that there is nothing I can do about it, makes it even worse. It is playing with my mental health, and actually feels heavy and always tired.

P13: Depression is when you are hungry but even if you see food, you don't want to eat, you feel full even if you didn't eat, not sleeping, and I can see I lost weight.

P14: And I don't eat, I am really anxious. I don't even sleep. Even if I try to watch a movie to induce sleep, sleep doesn't come at all.

P16: Depression? I think depression even if you want to eat food sometimes food won't go through your throat. Even if I force myself that I really have to eat today because I didn't eat yesterday, yet I am not feeling hungry. It's like there is a rock on my throat and my heart is heavy. Even when I want to eat, I fail to swallow the food. I also do not have an appetite for food. It's like I have a lot to anticipate in my mind even if there is food I don't want to eat.

P21: Many days can pass without eating and you won't even feel hungry. Even if you want to force yourself to eat something, it won't pass because you have a stone on your throat and your head is paining. Something like that.

3.2.2.2 Conceptualisations of perinatal depression

The participants conceptualised perinatal depression as emotional problems, a troubled mind, and overthinking or thinking too much. Thinking too much referred to rumination triggered by interpersonal difficulties and social challenges. Some participants described depression as a problem triggered by life events, such as being unable to provide for family and marriage conflict. According to participants,

*P3: I think depression (**pausing**) is when you have so many things filling up in you, thinking too much about it, they become a lot and you don't know what to do! They just fill up and fill up and overload you at some point, but you refuse to explode, because you have that thing that you are stronger than it.*

P4: Depression! Depression is when you have something in your mind when you think too much about it, failing to come up with solutions, just keep on thinking and thinking. That's how I understand it.

P6: When you are having a lot of things in your mind, then, every time you are thinking about it and you are stressed. For example, when I think about my children, when I am unable to give them something they want or sometimes no food. When I think of these things or poverty I get upset, then my mind gets stressed. I keep thinking too much about it.

P10: Depression is when you think too much about your life circumstances, such as marriage life and others such as when you become pregnant unexpectedly. That's how I understand it.

P11: Depression is like when there is nothing to do about the situation and it gets to that extent when you have no option but to think and dwell in depression. You are thinking life has no meaning because it isn't working like it is supposed to. You are just having too many problems, that you do not have solutions.

P21: I think depression is when you are stressed and thinking too much about your problems, like relationship problems and poverty also.

3.2.2.3 Suicidal ideations

The participants believed that their burdens were due to social challenges they were facing, which forced them to have suicidal ideations. Some also believed that taking their own life by committing suicide would free them of all their challenges. According to participants,

*P1: Sometimes I consider taking my own life! (**laughing**). I don't think about it a lot but it does crop up in my mind once in a while. Especially when I am really up and down! Maybe it will make it easier for people in my life. My family (**taking a deep breath**) with all this financial struggle at the moment I feel like if I die, most of that will be written off. I don't have to struggle with my family anymore. Someone else, like my parents or my sisters and my brothers won't take care of me anymore. Instead they will just take my children.*

*P7: Depression is when you are in a dark place; very, very dark place like when you are suffering from really, really deep problem, that can't figure out what to do to solve it except maybe take your own life (**sad face**).*

P19: Depression is like when you think too much yet you don't know what to do anymore. There is too much in your head. Then you think of killing yourself to end your problem or suffering. It's like life has stopped and you are just on your thoughts that get you into deep depression.

3.2.3 Theme 2: Effects of depression on daily living activities

The effects of depression on daily living activities had four sub-themes, namely difficulty to perform daily tasks, social isolation, feelings of disappointment, and effects on the family.

3.2.3.1 Difficulty to perform daily tasks

The participants reported how depression affected their functioning during the perinatal period. The participants described feeling overwhelmed by their circumstances, inability to concentrate and complete their household chores. According to participants:

P4: I do not want to do anything! It was better if I was not pregnant again. The responsibilities are too much. I really feel overwhelmed by the coming of the baby. I can't cook, clean the house

and wash clothes. So the only thing I do is thinking days and night. I am really failing as a parent. **(looks worried)**.

P11: Aha, for me I don't do much, not even cleaning or cooking. I have been so stressed lately, and is hectic it's really affected me in a bad way like I am not sure I am not really sure when all this is going to end. Because it is now trying to roll me, physically, mentally and emotionally, and if I can't get hold of the three, then I am totally breaking down. **(laughs)**. It is really affecting me in a bad way.

P14: I don't want to do anything. I lost concentration. I am a student and I have poor concentration on schoolwork. Just keep on thinking about everything I am going through. I don't know how to explain it, but it's like you are surrounded by people, but you don't even see them, you are just in your own prison!

P17: I feel overwhelmed by my problems. There are times when I can't even wash my baby's clothes because I do not have energy to do so.

P19: The situation I find myself in is overwhelming me and I am unable to do anything. I am always in bed because of dizziness and starvation. It has also affected my studies.

3.2.3.2 Social isolation

The participants stated that life became a challenge and they struggled with interpersonal isolation, and most of the time had no desire to associate with others. Participants reported that they felt judged because of their pregnancies, and this contributed to their sense of isolation from others. They did not want to leave the house but rather wanted to be alone. This was particularly true of participants who had unplanned pregnancies and were often the recipients of negative judgments from their families. According to participants:

P3: A couple of weeks ago I got to realise that I am suffering from depression. I was Googling it, and I got to realise. I just want to be in the dark; just want to be alone in the room. I want to be on my own, locking myself in the room. I don't even want my partner around me.

P8: I do not want to go out, I just want to be alone and think about my problems. Sometimes I only go out when it is my day to cook, because we have a list for cooking.

P2: I just want to be alone and dwell on my thoughts, thinking and thinking, even if a person comes to see or visit, I have no desire to speak to that person **(taking a deep breath)**.

P13: I want to be alone and even if someone comes into our house looking for me, I have to hide myself. I don't feel like talking to anyone. This unplanned pregnancy has very much affected me. That's the reason I don't want to associate with anyone.

P14: I spend most of the time alone; I don't want to associate with anyone. I am still hurting and whenever I think about it, I just break down in tears. I don't go out anymore. I am ashamed because everyone knows that I wanted to abort the baby.

P 18: To be honest, it really affected me badly, and I don't want to speak to anyone, just want to be left alone, alone and alone with my thoughts **(repeating)**; like to think about what is

happening to me or my life. I am saddened and my thoughts are troubled. How I wish everyone could understand me and just distance themselves from me.

3.2.3.3 Feelings of disappointment

Several of the participants felt disappointed with themselves. One participant blamed herself for not using contraceptive methods. Two participants believed that they were supposed to finish school, get a job and get married then have children so that they could be more independent. Another participant blamed herself for having three children, being unemployed and infected with the HIV virus at the age of 24. According to participants:

P4: I blame myself for not using contraception. I wasn't supposed to be pregnant again.

P7: But still I feel like I should've known better because I'm not married and I didn't finish school. I feel really disappointed in myself, because I know better but I allow peer pressure to control me, so I'm blaming nobody but myself.

*P8: I haven't been doing good with it has been affecting me very badly (**sad face**). Because at the age of 24 I ended up having 3 children, I have 3 children now! He is the third one (**pointing at the baby**). What worries me most is the fact that I am 24 years old, I have 3 children, am HIV-positive and I can't support my children. I am disappointed in myself.*

P19: Falling pregnant at a young age really affected me a lot, because I was not ready for it. I have not finished school and my parents are really disappointed in me.

3.2.3.4 Effects on the family

The participants described how perinatal depression affected their families. Some reported negative feelings towards their husbands and children. Their frustration resulted in communication problems, neglecting the children's needs, scolding them disproportionately, and arguing in front of their children. According to participants:

P1: I think this depression had a negative effect on my family. Sometimes we argue in front of the children, not helping my children with homework because I am angry and tired most of the time, and not cleaning and cooking. All these things bring my family to a standstill or how can I put it.

P10: The whole issue is affecting my family because most of the time we end up arguing and scolding the children.

*P15: This pregnant issue, I think, is affecting my family. I do not really pay much attention to my husband and children, sometimes do not even cook, wash clothes and maintain the house as I used to do. Sometimes I feel bad about neglecting my family and ignoring my husband, but it is like I can't really control it, and he is worried about my attitudes and he keeps saying maybe it is because of pregnancy and hormones or what? (**Imitating how the husband speaks and***

laughed) because he never saw me with these attitudes I have now towards him and the children. I really feel bad about it, but as I said, I can't control it and I spend most of the time on my computer although I am not really doing much, just to make him think that I am busy with school work.

P16: Because I am stressed I end up not attending to my family needs or even communicating with them properly.

3.2.4 Theme 3: Multidimensional causes of perinatal depression

The participants described multiple causes of perinatal depression, including challenging life circumstances that led to variations in mood and depression, and life events that caused them pain and suffering. Eight sub-themes emerged from this theme, namely financial struggles; unemployment and poverty; lack of social and emotional support; gender-based violence; paternity denial and rejection; fear of disappointing parents; unplanned or unwanted pregnancy, and the effect of being HIV-positive while pregnant.

3.2.4.1 Financial struggles

The participants indicated financial struggles, financial insecurity, unemployment, debt and inability to meet family needs as causes of depression. According to participants:

P1: Financial struggle mostly, I must say I can't meet the needs of my family due to financial struggles. I think this is the main reason for my depression.

P3: I am a bit worried financially. I was retrenched from my job due to Covid-19. I think my depression is more about finance. Thinking about how I will support my little one.

*P10: I am not really financially stable, because I am working in a hair salon and if I take maternity leave, I will find myself in debt (**very sad face**).*

P11: Things were okay but later on when school kicked in my sponsor dropped me. I have to deal now with the rental issue, financial problems overall. And I only have today and tomorrow to leave the house, that's what the landlord lady said.

P13: I am struggling financially, because the business I have is not generating enough income.

3.2.4.2 Unemployment and poverty

Unemployment, through its associated stressors, emerged as a pervasive causal factor of depression. For most participants with low educational backgrounds, limited or lack of job skills and harsh economic conditions due to the COVID-19 pandemic further reduced their hopes of securing employment. According to participants:

P3: We both lost our jobs, so we are currently unemployed. Both came back from England lately because of Covid-19. My wish is to find a job so that I can support my little ones.

P5: If I could get a job to support my children and make sure my children live a better life, not going to beg in the street, when there is no day they go to bed with empty stomachs. We are living in poverty!

*P8: And I am unemployed. I am jobless. It is just like oh, it is really unnecessary getting kids when you are not working! Me and my family could die due to poverty! **(looks sad)***

P16: I don't have a job, and sometimes find it difficult to feed my children. We are living in poverty.

P18: I start to wonder how I am going to handle all this by myself. I am unemployed and I am in Grade 12!

3.2.4.3 Lack of social and emotional support

The participants indicated that they got no support from their partners and other family members. Participants struggled to provide for their children without support from their partners; indicated that their husbands were unwilling to provide for the family. Participants indicated that the lack of emotional support from their partner and family contributed significantly to the burden of depression. Participants reported that they felt that their partners were not doing enough to support or understand them. According to participants:

P2: I am not getting any form of support social and emotional. My husband treats me very badly and refuses to buy even food and clothes for us.

P3: It affects me very badly in the sense that my partner is not really doing enough to help me cope with these challenges we find ourselves in. He doesn't like to work. He is not seriously looking for a job. If he would search for a job seriously, he would have a better income. But to me, he is kind of lazy.

P9: Lack of support, there is no one to help me with house chores or to look after the baby, because I am just alone with my father and my siblings. They are all men, and you know men do not help with house chores. The father of my baby is supportive, but he is at his place and we do not stay together. My sister came to help out but she goes to work from 6 am and comes back around 8 pm. Most of the time she is tired and can't do much.

*P11: He does not understand me most of time he does not understand me when I am trying to tell him that he should just be there for moral support. To me, it's like I am not asking for too much but to him, I am asking for too much. And I am using the pregnancy and all the problems to get his attention or to get him to care for me. But aha, so I just let him be **(tears rolling down when elaborating on boyfriend matters)**.*

P13: Also the father of my children is not really supportive. Always I have to fight in order to get something for his children. Again, I am the only one taking care of my four children, my mother and eight siblings.

*P16: My husband does not buy enough food. Every time I have to force him to buy food and even have to force him to come register our daughter's birth certificate. I am really tired of fighting and arguing (**sad face**).*

3.2.4.4 Gender-based violence

The participants reported gender-based violence as a cause of depression and struggled without knowing what action to take to solve the problems they experienced. Some participants thought of leaving their husbands but had nowhere to go because of unemployment and no income to support their children. Consequently, some remained in an unhealthy relationship, which affected them mentally, physically and emotionally. According to participants:

P1: We fight a lot and sometimes my husband can start the fight in the presence of our children and also he uses very abusive language

P3: My partner uses abuse words to me and he does not care or realize how badly it affects me.

P13: I argue a lot with my husband and sometimes he beats or pushes me around.

*P16: Really, it affects me very much and sometimes I think of leaving him, although I have nowhere to go or money to support my children. If I could only find a job maybe he would respect me! So I always think about this abusive behaviour and alcohol thing it really affects me mentally, physically and emotionally as you can see how thin I look (**pointing at herself**). He is always getting drunk and looking for fights, I am very stressed because of him. I have marital problems. That's the reason I am thinking too much. Because my husband when he comes home from drinking alcohol, when he arrives home drunk like and sometimes finds us sleeping, he will start arguing and throwing things at me. He becomes aggressive.*

3.2.4.5 Paternity denial and rejection

The researcher interviewed four adolescent mothers, three of whom had encountered paternity denial. The disclosure of pregnancy to their partners triggered perinatal depression among the adolescent mothers. They reported that their partners denied paternity after they told them that they were pregnant, and they stopped communicating. According to participants:

P7: The stress from my child's father because the father is not also there, he is denying paternity and everything.

P14: From the baby's father's side once he was asking me if it was really his child! How is he supposed to know that is his child? Then I asked him, didn't you have sexual intercourse with me? And unprotected one? Still, he was like insisting that is not his child! There was a time

when he even insulted me. It's just funny when you are in a relationship with someone, your boyfriend, and then the person has the audacity to speak about your private parts (**participant breaking down in tear**) it was so humiliating! You are my boyfriend. How can you say such a thing? It hurt, it really hurt!

P18: It's just funny how the person I thought loved me, like he claimed to, betrayed me, and just dropped me like that, when I needed him most. From the day I told him that I am pregnant, he stopped communicating with me and he sent me a message that I should go look for the father because he is not responsible for my pregnancy. But later sent a message that he thinks the child is his! Such childish behaviour but the social worker advised me not hold grudges against him! That's life (**sad face**).

3.2.4.6 Issues of adolescent pregnant women

The adolescent participants were depressed and afraid to disclose their pregnancies to their parents or family members. Anticipating negative reactions from their parents triggered depression among them. According to participants:

P7: The fact that I didn't want to disappoint my parents, by which I did! I could not look them in the face and tell them that I am pregnant because I knew the next question would be: Who is the father? I didn't have an answer for that question. And to make matters worse I failed at school that was too much to handle! You do not understand what it feels like? (**Questioning if I really understood her pain**).

P14: I was scared to disappoint my parents and I ended up disappointing them! So my parents, my parents are really disappointed in me (**voice trembling**) and that is hurting me.

P18: I was scared to disappoint my parents. Really, my parents also did not take the pregnancy news lightly!

P19: Because when I found out that I was pregnant, I was really scared of my grandparents' reaction. Because my grandfather is a typical Herero man and he doesn't believe in getting pregnant before marriage or finishing school. For example, when my elder sister fell pregnant, she was so stubborn and my grandfather threw her out of the house. She ended up living in Okakarara. But she is now back on track and living her best life.

3.2.4.7 Unplanned or unwanted pregnancy

Most of the participants stated that unplanned or unwanted pregnancy was a major stressor that triggered their depression. Those who had recently given birth claimed it was too soon to be pregnant again and some were still at school. Some participants indicated they wished to have a safe abortion. According to participants:

P10: I think, I think (**repeating herself**) during pregnancy I was more depressed, because this unplanned pregnancy, I even allowed the devil to use my mind. I thought about aborting the

pregnancy. I called people who are selling abortion pills. Bought some and kept it in the house, without anyone knowing about my plan, not even my husband (**taking a deep breath**) kept the pills for some days, while thinking about it, but later I decided not to do it. Discarded the pills, because I feared killing and the consequences of killing which might haunt me for the rest of my life.

P11: The cause of my depression or situation that I am in right now, (**little laugh**) bit of pregnancy, getting pregnant and you are studying, unplanned pregnancy. What makes it worse is a face-to-face class now at International University of management (IUM). Meaning I can't go home otherwise I will miss classes. And I do not have any relative here, I used to have an uncle here, but he committed suicide on April this year, so I have no one to go to. (**Looks troubled**).

P15: My last born just turned 1 year! Now I am pregnant again! so I am very much disappointed because I was not prepared to become pregnant again. I am not physically, emotionally, financially, and mentally prepared.

P13: This pregnancy, really, I am feeling bad about it. If I could only have an abortion. It will be much better, because this pregnancy (**pointing to her tummy**) is just adding to my burden!

P14: No good experience with this pregnancy, it brought a lot of thoughts in my mind. aha. (**Taking a deep breath before continuing**) If I had a choice, I would go for abortion. Because I don't see a reason to carry something for nine months that you are not happy about it. Is a punishment.

P15: Since I discovered that I am pregnant I lost my peace! If there was abortion clinic here, I think I would prefer to have an abortion and I wonder whether my husband would allow it, because he is a Christian.

3.2.4.8 The effects of being HIV-positive during pregnancy

Being HIV-positive during pregnancy triggered perinatal depression among some of the participants. One participant stated that although she was already depressed because her boyfriend was unfaithful, receiving an HIV-positive diagnosis aggravated her condition. Another participant reported that her partner blamed her for the HIV-positive results. According to participants:

P8: Like I told you, it's because of my HIV-positive status (**frowning face**). If it was not for that, I think I would be okay!

P10: Then, my health status is not good. I am HIV-positive, that's the reason I am stressed.

P21: Oho, I am depressed because my boyfriend is unfaithful, he has a lot of girls around the city including me. Now, now, I am pregnant and tested positive for HIV. Oho! (**Pausing again**) My boyfriend is not denying that he impregnated me, but he is denying that he infected me with HIV and blaming me for it. He is assuming that I am the one who infected him if he happens to

test positive. He does not want to be tested. So we argue a lot about the issue and he ends up saying hurtful words to me.

3.2.5 Theme 4: Factors contributing to or exacerbating perinatal depression

Five sub-themes emerged as factors contributing to or exacerbating perinatal depression, namely emotional instability, fear of losing current pregnancy, fear of being judged or stigmatised by society, chronic illness, and dwelling on thoughts.

3.2.5.1 Emotional instability

The participants narrated how their emotions changed dramatically, being happy for a few minutes and sad the next minute, which affected how they interacted with others. They experienced fluctuating moods or emotions and reported crying most of the time. Some indicated how they took simple things personally and were easily irritated. According to participants:

P1: (*Taking a deep breath*) *If I am comparing between my other pregnancies, aha, the current one I am really emotional. Then I am happy, then I am sad; I am sad most of the time. While with my other pregnancies I was more excited and I did not cry as much as I do now. I know pregnancy comes with the territory. Sometimes you become emotional because your hormones are completely out and about. But I have been experiencing more sensitivity to harsh words too. Sometimes a person did not even say a harsh word but I will take it personal and start crying, it is very emotional.*

P2: *I have been crying most of the time or let me say emotional or sadness! It seems like I have no one to listen to my worries. There is no one who will listen to me without judging me. There isn't anyone who will come to me and ask what I am going through. So every worry I feel is kept only inside my heart.*

P3: *I have a lot of support from my family, like I can't really say that is a bad, bad experience no, I am just more worried about it. I actually have a lot of changing moods, like I can be for a few minutes then get angry or irritated afterward.*

P7: *When I was pregnant I was like I can't even explain it because I was sad most of the time. I was really depressed most of my pregnancies.*

3.2.5.2 Fear of losing the current pregnancy

Some of the participants who had experienced miscarriages before expressed worries, fears, and anxieties due to previous losses. Some of the participants were concerned about birth outcomes, whether the baby would be alive or not, and if alive would she/he be in a healthy

condition. The likelihood of complications or even death during pregnancy and while giving birth was also a main source of worry for some of the participants. According to participants:

P4: *I went into depression when I lost my babies. Let me say ah, when I lost my two pregnancies due to high blood pressure. The last pregnancy the baby was born very small and couldn't survive. **(taking a deep breath)**. The fact that I lost three pregnancies and how everyone blamed me for it affected me very, very badly and, and is like, I can't do anything about it, so I am forever grieving and I end up blaming myself as well. **(sad face)***

P6: *I feel this way because I lost my first pregnancy. I am still having the same pain that I was having when I lost the first pregnancy.*

P12: ***(Taking a deep breath before starting)** I am feeling this way because I lost two pregnancies already and I do not have any living child. Sometimes people say bad things about me like, why do I keep on getting pregnant if I can't have a live child? Such a question is so hurtful! **(Sad face)**. I am supposed to be happy that I am pregnant, but I am more scared and anxious because of my previous experiences. I have had bad experiences with my pregnancies and this one is not different, feeling sad and scared all the times that what if I abort again and again. **(Sad face)***

P15: *Last year I gave birth, and my labour was not normal labour, I had a lot of complications, high blood pressure, my pregnancy past the due date, the baby was not breathing well, and I struggled to push the baby out and this year I am pregnant again! I am scared! what if it happens again? **(angry face)***

P7: *Lack of information also added to or triggered my depression. Sometimes I think, what if I die, there are a lot of stories even nurses beating women who are not pushing. Fear of dying was an issue again, just thinking, thinking, I think this depression, you always look for something to worry about.*

3.2.5.3 Fear of being judged or stigmatised by society.

The participants were mindful that premarital sexual activity would be met with condemnation from their parents and community. The participants who became pregnant before marriage were still at school, and those giving birth within a short interval, feared being judged by society and tried to isolate themselves. Some participants did not want others to know they were depressed due to the stigma attached to mental illness. According to participants:

P7: *After giving birth, my family were like what? because most of them did not know that I was pregnant, so they only learned about it after I gave birth. So, they started, why did you fall pregnant? It's like all of my mother's kids just fell pregnant and all of those words! And then it really affected me because it made my mommy unhappy, so like seeing my mommy unhappy it made me sink into deep depression I was like, I was like, **(repeating herself)** why did I fall*

pregnant? And then at that time I really wanted to give my child away. Their words were really affecting me.

P9: I was ashamed to be seen with a big tummy. Thinking about what people will say about me. Getting pregnant when you are not married is just uncomfortable. There is no way you will enjoy it or have a good experience, it's like you spend most of the time trying to hide it until at that point where you can no longer hide it **(laughing)**

P14: I tried to tie this pregnant when I go out because heard that if you tie it won't grow fast, I was ashamed to be seen with big belly, looks kind of weird.

P15: I don't have good experience with this pregnancy, because I didn't plan it, it just came unexpectedly. So sometimes I am just thinking what will people say when they see me pregnant again, maybe they will say this one every year she is just pregnancy giving birth like a chicken. You know people are so judgmental, and even my own sisters, I know, will throw words at me. So, most of times, I am just wishing and hoping the tummy won't grow. **(hahaha laughing)**

P19: Depression is like mental disease? **(asking)**. So people will call you mad. Even if you get better, there will always be that attachment that you are mad. I don't want people to know that I have depression.

3.2.5.4 Chronic illness

Four of the participants referred to chronic physical illness such as heart problems, HIV/AIDS, chest pain and difficulty in breathing as challenges that contributed to their perinatal depression. According to the participants:

P3: I am a high risk because I have a heart problem. I am worried if I will have energy to push. Doctor has changed my medicine and I am doing fine now.

P4: Checking what I eat so that it won't affect my blood pressure. My blood pressure is up and down and the doctor increased the tablets.

P8: I am HIV-positive and I am now suffering from chronic illness such chest pain. My chest is heavy, and I find it difficult to breathe sometimes.

P14: I have some complications. Like my chest is in pain, sometimes I can't breathe. The doctors want to do a TB test on me because my brother had TB.

3.2.5.5 Dwelling on thoughts

Participants indicated not engaging on any strategy to distract to avoid overthinking. They reported engaging in repetitive thoughts (rumination) that caused them significant distress and obstructed engagement in positive thinking. The participants' thoughts centred mostly on issues affecting their lives. Some tried to solve their problems by thinking about them constantly, which contributed to severe depression, or kept everything to themselves not to bother others. According to participants:

P1: Nothing, I am just thinking and thinking to see if I find a solution, even taking my own life!

P7: Not really, I haven't done anything, because there is no one to talk to or do. However, there is a friend I like to talk to but she is not really that person who can listen attentively, so it is hard to have such a conversation going. She is also a student, so she has her own problems. I don't want to be a burden. She knows what I'm going through. I think I'm depressed! You cannot just talk to anybody, if they haven't somewhat experienced or had the knowledge of how to help someone with this issue, then there's no point in talking to them.

P19: Nothing, really struggling to balance life on my own. All you have to keep saying is 'this too shall pass'.

*P20: Nothing, just thinking and crying most of the time and locking myself in my room because people annoy me! (**Participant seems to be irritated**)*

3.2.6 Theme 5: Interpersonal factors that have a negative or positive influence on perinatal depression

Interpersonal factors that have a negative or positive influence on perinatal depression emerged as the main theme. Two sub-themes emerged namely living in a toxic or abusive relationship and positive experiences.

3.2.6.1 Living in a toxic or abusive relationship

Some participants who lived in an abusive relationship described instances of verbal as well as physical abuse, including hurtful words, name calling and accusations. Some of the abusive behaviours happened after the partner used alcohol, and some in the presence of children. According to participants:

*P1: But a lot of negativities from my spouse criticising me sometimes in front of children that I am always stressed for nothing and good for nothing wife (**sad face**).*

P13: Just fighting and arguing with my partner because he does not want to support his children.

P2: He spends most of his time drinking alcohol with his friends and when he comes home, uses abusive words to us .

*P16: Okay! I think his abusive language, abusing alcohol, calling me names, such as that I am useless and good for nothing, and the beating I get from him. I wanted and still want to leave but I have five children and I have nowhere to go with them. Then I also do not have enough money to feed us (**Participant holding her head**).*

3.2.5.2 Positive experiences

The participants were asked about positive experiences and support that they had. Some participants described the benefit of emotional support from others who understood them and shared the same struggles, including their sisters, parents, partners and elders in the community. This strengthened them against others' negative appraisal and judgment. Participants who had positive experiences said the following,

P7: Right now, since my elder sister spoke to me, she was like no, it is part of life and life experiences and everything, and then I became stronger. I am now in a way better place, because my sister spoke to me, as she went through the same thing I'm going through.

P8: Not really, my family, and my boyfriend are supportive, I think, the problem is just me and my thinking.

P9: Not a bad experience, like my parents did not say much about my pregnancy. They are still paying for my school and the baby's father is supportive. He even came with me today.

P15: So far, I did not have any bad experience from anyone and my husband is very supportive. But it is just me and my depressive state, not speaking to my husband. Sometimes he complains that I am very moody maybe it's because hormones changes and the whole pregnancy issue, so he is really supportive and understanding.

P19: When my mother found out that I am pregnant, I was surprised, because she was the most supportive person I ever knew. and my father is also supportive.

P20: But luckily, because I like to speak what is on my mind, I told an elderly woman in our location and she advised me not kill myself because of the pregnancy. She advised me to keep the baby because babies are a blessing from God. She encouraged me to start antenatal care, that's the reason I am here today, and I am eight months pregnant. I did not have the courage to come earlier because I was not happy about the pregnancy issue, and I live with my boyfriend, and he is very supportive. He really wants this baby, and he is the one encouraging me to keep it.

3.2.7 Theme 6: Coping mechanisms used by women with perinatal depression

To develop interventions that are acceptable and contextual participants were asked to describe the activities they engage to deal with depression. Participants reported numerous coping strategies they employed to assist regain balance and positive minds in their lives during perinatal depression. Four sub-themes emerged: spiritual coping, distraction, self-reliance and resilience, and social support.

3.2.7.1 Spiritual coping

Spiritual coping played a key role in helping the participants cope with perinatal depressive symptoms. This included prayer, going to church, and listening to church services. The

participants indicated that churches were closed because of the COVID-19 pandemic and started online services. The participants reported having their hope restored and experiencing relief from their burdens after listening to the Word of God and praying. According to participants:

P1: Honestly, I have been speaking to God. There was a time, I think, a month ago when I was really doubting my Christianity, my sanity, my everything, if you can put it that way. But sometimes I am stuck where I am, I am stuck in my mind, and I can't focus on the future right now.

P10: I like going to church on Sunday or listening to online church services. That gives me a little peace of mind.

P12: Praying to God to remove that curse placed on my life that's the only thing I do most of the time. Praying.

P13: When I am home, I am very sad, but when I go to church and hear about God's word, I feel happy. But churches have been closed due to Covid-19. I listen to church services and read my Bible. It really gives me hope for a better future.

P16: What else can I do? Just praying to God to protect us! I used to go to church but unfortunately, churches have been closed because of Covid-19. Now, I am just in the house reading my Bible. On Sundays, I listen to online services. I always pray to God to change him and also to protect me and my children. God is powerful. He protects us.

3.2.7.2 Distraction

Distraction is a way of coping with perinatal depression. The participants indicated that they listened to music, watched television, and exercised to distract their thoughts and relieve their depression. According to participants:

P3: Listening to music and watching movies really helps me.

P7: I listen to music and exercise here and there. I just keep myself busy most of the time, for example, reading and watching television, so that I won't dwell much on my thoughts.

P6: Nurse, to take my mind off and not think about my unfortunate situation, I used to exercise, for example, walking around in the evening.

P8: And sometimes I listen to gospel music, just to take my mind off thinking.

3.2.7.3 Self-reliance and resilience

The participants felt confident in their ability to be self-reliant and change their thinking about their problems. The participants indicated engaging in positive thinking by trying to control of

negative thinking and reactions. One participant described relying on and motivating herself to overcome difficult times and solve her problems. According to participants:

P3: Yeah, sometimes you have to figure it out by yourself because nobody else would be there and have the answer for you or solve your problems. Failing to come up with solutions, I think, is what keeps us thinking and thinking until we fall into depression.

P5: Try to be positive and telling myself, it will pass.

P15: Sometimes I try to be positive, talking to myself that everything will be all right, instead of just thinking about what makes me unhappy.

P16: Sometimes I have to think positively and encourage or re-assure myself that it will end! If I always think negatively, always cry, thinking about things to which I do not have solutions, self-blaming, and all these things, I will go mad.

3.2.7.4 Social and emotional support

The participants stated that social support helped them cope with depression. The participants indicated that they preferred to share their emotional distress with a trusted person, especially those who had some mothering experience, such as friends and family. According to participants:

P2: Talking to someone who is a mother or mother figure really can help.

P9: Most of time I talk to my mother, she encourages me not to lose hope.

P10: I also talked to my friend. She is the only person entrusted with my problem. When I talk about my problems, she feels sad for me, and I feel the same when she tells me her problems. There is nothing I can do besides her, there is no one I could talk to.

P17: Talking to my mother, when I feel down I start telling it all to my mother. She's really good at listening (always says 'take it easy, I am behind you, everything's going to be fine) and she just reassures me.

3.2.8 Theme 7: Support needs of women with perinatal depression

The findings showed that social needs and healthcare support were an important needs for women with perinatal depression. Two sub-themes emerged from this theme, are discussed.

3.2.8.1 Social needs

Social support is vital to women diagnosed with perinatal depression since social support assures them and provides them with relief. Some participants related that significant others supported them through encouragement, assurance and informal counselling. Social experiences influence health, and the participants expressed a need for support groups where women with perinatal depression could meet to discuss issues affecting them and learn how

to find solutions to their problems. The participants indicated that a group leader should be someone who had experienced and overcome depression and not a nurse. They also expressed the urgency of integrating social support groups into their management. According to participants:

P1: I think support groups will be much better, where women with depression discuss matters and issues affecting their lives. You can talk to anybody, but if they haven't somewhat experienced depression they won't really help much or have the knowledge of how to help someone with this issue, then I don't see the point in talking to them.

P8: I think we should have a support group. Perhaps where women with depression should meet and discuss issues affecting them. I think nurses can try to offer some help, but I think someone who has suffered or experienced depression should be the leader of a support group. That's what I think may also help.

P9: Perhaps creating a support group, where we can learn how to cope with our challenges. Since it may not always be possible for people to attend sessions in their different locations, because of transport money, I am thinking maybe nurses can organize a place here at the clinic where mothers with depression when they come for follow up could meet.

P17: But when I was in the hospital there were three women who also gave birth to premature twins. We grouped together and talked to each other because we were all in the same situation. When one woman lost her other baby, we really comforted her because her family was far away. I think a support group might work because you are in the same situation.

P19: A support group, where we can advise each other on the issues affecting us and also learn from those who have recovered from depression.

3.2.8.2 Healthcare support

The participants stated that healthcare support needs to be integrated into their management interventions. Some of the participants were only aware of counselling and would prefer one-on-one counselling due to fear of stigma. Some participants expressed uncertainty about the effectiveness of group counselling, stating that it would be difficult to communicate and talk about their problems in a group of people due to confidentiality. In addition, counselling should be done by someone non-judgmental and empathetic. According to participants:

P2: Okay! I think counselling would be better and having someone to speak to me when I am feeling down. I want someone that I can talk to; mainly someone who doesn't know me and that I do not know, someone who is not judgmental that's all.

P3: I need someone that I can talk to, a good listener and with a non-judgmental attitude. Counselling will work better with me, but it all depends on who is doing it because some people

have a judgmental attitude. Before you even finish speaking, a person will be like, why did you fall pregnant again if you know you cannot afford to support another baby?

P4: Counselling, but, but not group counselling, only individual counselling, because I do not want everyone to listen to my problems.

P12: A proper counselling like one-on-one or face-to-face and not the one I got last time. The social worker talked to me via the phone. I was told because of COVID-19 people are working from home, but sometimes I just want someone talk to, like we are talking now, the two of us.

P13: Counselling will do, but not a group counselling because no one will reveal her personal information in a group. I want someone asking me about how I am feeling, just like we are talking now. It helps really, I am feeling relieved. Just by talking about it and knowing that there is someone who cares in this world where most people do not mind about other people's problems.

P14: Maybe counselling and talking to someone who is non-judgmental will help me. Because some people are so judgemental, they can even ask you why did you have sex if you do not want a baby? I want someone who can really understand how I am feeling and not judge me based on mistakes I made in life.

3.2.9 Theme 8: Healthcare needs of women with perinatal depression

Five sub-themes emerged from this theme, namely, creating awareness about depression, screening for perinatal depression, pharmacological interventions, the need for privacy and confidentiality, and follow-up visits.

3.2.9.1 Creating awareness about depression

The participants stated that during antenatal care, they were given health education about other diseases affecting pregnant women, but nothing was said about depression. They suggested that healthcare providers could use the same platform to raise awareness about perinatal depression. The participants also indicated the importance of awareness about signs, symptoms, and causes, as well as providing resources to help mothers maintain their mental health during the perinatal period. According to participants,

P3: But I think before nurses start with screening they need to sensitize, so that mothers would be able to identify signs and symptoms of depression. Then, awareness could also help to identify depression and help or advice in seeking care. Otherwise people will put it from a cultural point of view. I feel like at the beginning, you know, when they do health courses - I think it should be a part of that. They should have a little lecture where they just tell us as women if you want to talk to someone you can go in that room. I think nurses should have sessions where they teach pregnant women about signs and symptoms of depression and then, convince pregnant women that depression is common among pregnant women.

P4: Healthcare providers should ask pregnant women about depression and then teach them the signs and symptoms of depression. I mean give them awareness like they give health education about hygiene, breastfeeding, but nothing is said about depression. I am sure most mothers may have it, because when we are outside waiting to be seen by the nurses, you hear how some women complain about their husbands and boyfriends that are not supporting them.

P11: I think what they should do is as you already started conducting a test to check what people are going through. But sometimes people do not really stick to what they are feeling, because talking about it is difficult because they don't believe it is happening. I think you should educate them and tell them the importance of ticking accordingly and how imperative our mental health is. I think that's all. **(smiled)**

One participant indicated her worry that healthcare providers were not knowledgeable about perinatal depression. She pointed out that healthcare providers should also be educated about perinatal depression. According to the participant:

P15: I think healthcare providers also need education. Educate them on how to deal with depression, for example, signs of depression. What makes us vulnerable to depression, because most pregnant women might have depression but they do not know it is depression. But doctors and nurses don't know either, because until today, I have been coming here no one told me that I have depression.

3.2.9.2 Screening for perinatal depression

The participants expressed the need to be screened for perinatal depression because when they visited the clinics, the healthcare providers only paid attention to their physical health, leaving out their mental aspects. They lamented that this aspect of screening for perinatal depression was lacking in their care, as they were only given health education about some pregnancy-related matters while forgetting that pregnancy itself can stress women. They believed that healthcare providers should screen for perinatal depression to see who was happy about the pregnancy and who was not satisfied to prevent illegal abortion and killing or abandoning babies. According to participants:

P8: I don't know! **(mood changed, feeling down and not willing to speak anymore)** I think it is good that you called me in. Nurses should really pay attention to our mental health and not only about physical well-being. Because like now the baby is going for a test and I am thinking maybe if the baby tests positive, I should just give him away or what? Because I do not know if I will be able to take care of him.

P9: I think nurses should start asking pregnant women and mothers about their mental health. Like most people have no one to talk to, and some may have problems opening up or speaking about what is really bothering them. But giving them a paper to tick may help.

P10: Maybe nurses should start asking us about how we are coping with pregnancy or maybe if we have depression.

P13: I think or I feel, nurses should pay more attention to pregnant women and mothers' mental health, because we are really going through a lot, and not everyone who is carrying the pregnancy wants it or is happy about it. When no screening is done to see who is happy and who is unhappy about pregnancy, that could be the reason mothers are doing illegal abortion and killing and dumping their babies after birth, because it's like we are forced to carry them.

(sad face)

P15: Okay! Midwives and doctors should have time to ask expectant women and mothers who gave birth about their mental health.

P20: Nurses should also ask us about our mental well-being, because they only give health education about pregnancy-related matters and forget that pregnancy stresses women.

3.2.9.3 Pharmacological interventions

Regarding the use of pharmacological interventions, most of the participants did not use medicines. Some participants expressed a need for pharmacological interventions to “calm them down” and for sleeping problems and expressed concern that they had been complaining about insomnia, but nothing was done. According to participants:

P7: There are those mental depression pills right or even sleeping pills? (asking) Maybe they can just give us those pills to calm down our minds (haha laughing), mostly for those with severe depression and not sleeping at all.

P8: There are no tablets for sleeping? (asking) Because I have been coming here complaining that I am not sleeping but the doctors only check my blood pressure and the baby, then tell me that everything is fine.

P12: Lately I have been anxious and not sleeping at all. If the doctors can give me something to calm me down so that I may be able to sleep.

P14: I think doctors should prescribe medicine for me because I told them many times that I can't sleep but nothing is done. I also went to a private pharmacy to buy sleeping tablets but was told to see a doctor. Women cannot take sleeping tablets while they are pregnant or what? (asking)

3.2.9.4 Need for privacy and confidentiality

Due to the unavailability of space at the perinatal clinics, there are two beds and tables for assessment in each room. The participants indicated a need to attend to their unique needs, expressed concern about privacy, and emphasized the need for and importance of privacy

and confidentiality in healthcare settings. The participants stated that there should be a separate room where they were asked about social issues, not a room where others could listen and hear. According to participants:

P4: But nurses shouldn't ask us about depression in front of everyone, I mean, like they do with other health education. Women may feel uncomfortable talking about it, when you see aha, when everyone is listening. One by one I think, would work better because it would ensure both privacy and confidentiality.

P12: There are many people in the room, including students, so patients won't really speak out when asked about personal matters.

P16: I think confidentiality is needed. They should have a separate room where they ask us about other issues affecting us, like abusive relationships, and tell us what to do or where to go.

P9: Healthcare providers should make sure that there is privacy or confidentiality. Asking women one on one might reveal a lot of things, like if some mothers want to kill their babies or kill themselves, or are being abused by a boyfriend and so on.

3.2.9.5 Follow-up visits

Some participants explained that their management would be improved when healthcare providers followed up to check on how they were doing or even called them. Participants who had delivered premature twins wished healthcare providers would call at least to ask how the babies were doing. According to participants:

P2: Moreover when nurses diagnose us with depression, I think home visits may be helpful because when I'm depressed I'm not going out, I'm sitting on the couch. And somebody to come in and see if I am coping would be much better.

P6: I think it will be too much for nurses, but they should do follow-ups for those women with depression just to see how they are coping at home.

*P17: I do not know, **(taking a deep breath)** after being discharged from hospital, I think maybe nurses can follow up on mothers with premature babies to check how we are doing and so on or even to call and ask. But now I am just alone, dealing with these small babies, even if they are mine. **(sad face)***

P19: Nurses and social workers should also do some follow-up just to check how we are coping with everything.

3.3 Explore and describe healthcare providers' experiences of working with women with perinatal depression in Namibia.

The second objective of Phase 1 was to explore and describe healthcare providers' experiences of working with women with perinatal depression in Namibia. The researcher interviewed 18 healthcare providers. Table 3.4 represents the themes and sub-themes for objective 2. The participant healthcare providers were identified with numbers, with P1 representing participant 1 up to P18 representing participant 18. The findings include the main themes, sub-themes, and direct quotes from the participants, supported by literature reviewed. Direct quotes are indicated in italics. Field notes are indicated in bold, italics, underlined and in brackets.

3.3.1 Participants' sociodemographic profile

Of the participants, six were aged between 25 and 30; seven were aged between 31 and 35; two were aged between 36 and 40; two were aged between 41 and 45, and one was above 45 years old.

Of the participants, 11 were midwives; four were medical doctors; two were social workers, and one was a community counsellor. Of the participants, eight had 5 to 10 years' working experience; five had 10 to 20 years' experience, and five had two to five years' working experience. See Table 3.3.

TABLE 0.3 PARTICIPANTS' SOCIO-DEMOGRAPHIC PROFILE

Age	Number	occupation	Number
25-30	6	Midwives	11
31-35	7	Doctors	4
36-40	2	Social workers	2
41-45	2	Community counsellor	1
45 and above	1		
TOTAL	18		18
Participant	Years of experience		
5	2-5 years		
8	5-10 years		
5	10-20 years		
Total 18	10-21		

TABLE 3.4 OBJECTIVE 2 : THEMES AND SUBTHEMES

Themes	Sub-themes
1. Understanding of perinatal depression	1. Signs and symptoms of perinatal depression 2. Difference between perinatal depression and puerperal psychosis

2. Biopsychosocial factors causing perinatal depression	<ol style="list-style-type: none"> 1. Biological factors 2. Social factors 3. Psychological factors
3. Consequences of undetected and untreated perinatal depression	<ol style="list-style-type: none"> 1. Suicide or harming others 2. Infanticides/abandoning 3. Miscarriages/premature births/Intra-uterine deaths 4. Lack of self-care and care of baby 5. Family discord 6. Poor milk production 7. Chronic illness
4. Barriers preventing assessment of perinatal depression	<ol style="list-style-type: none"> 1. Difficulty recognizing signs and symptoms of perinatal depression. 2. Lack of guidelines and screening tools 3. Cultural influences and lack of community (public) awareness 4. Shortage of healthcare providers 5. Perinatal mental health not considered part of perinatal care.
5. Perceived interventions to assess maternal mental health	<ol style="list-style-type: none"> 1. Timing of optimal screening 2. Provide psychosocial interventions 3. Pharmacological intervention
6. Integration of perinatal mental health into the primary health care setting	<ol style="list-style-type: none"> 1. Screening tool in the perinatal records that is translated into five local languages, 2. Provide adequate resources 3. Create awareness in the community, 4. Outline clear referral pathways
7. Acceptability and feasibility of interventions utility.	<ol style="list-style-type: none"> 1. Feasibility and acceptability of integrating mental health screening and psychosocial care into perinatal care. 2. Training and supervision

3.3.2 Theme 1: Understanding of perinatal depression

The participants healthcare providers described perinatal depression as a mental health problem occurring during pregnancy and/or after childbirth, which is very prevalent in Namibia. Two sub-themes emerged in this theme: signs and symptoms of perinatal depression and differences between perinatal depression and puerperal psychosis.

3.3.2.1 Signs and symptoms of perinatal depression

The participants understood perinatal depression in terms of signs and symptoms. Most of the participants were able to describe the signs and symptoms of perinatal depression that fall into either physical or psychosocial categories. Physical symptoms included feeling tired or sleepy, loss of appetite, weight gain, headaches, irritability and mood changes. Psychosocial symptoms included feelings of worthlessness, sadness or sorrow, hopelessness, stress or anxiety, loneliness and self-isolation. According to participants:

P4: Mothers with perinatal depression complain that they are not sleeping properly, lose appetite, feel anxiety or stressed, and are socially withdrawn.

P3: My understanding is that during pregnancy women complain of insomnia, headaches, feeling dizzy and not having appetite.

P5: They present with complaints such as headache, tiredness and not sleeping and even if they raise those complaints, most of the time we just think about pregnancy issues. We do not really think of depression.

*P6: Perinatal depression? (**asking**) My understanding is when a mother is not happy about pregnancy or baby ends up crying and not having peace at all then it leads to depression.*

P7: My understanding is that mothers with depression tend to be sad, crying and lost their appetite.

P8: Perinatal depression is when pregnant women and mothers complain of headaches, poor appetite, easily irritated, insomnia, weight gain or weight loss and so on.

3.3.2.2 Difference between perinatal depression and puerperal psychosis

Some of the participants were under the impression that perinatal depression was the same as puerperal psychosis. The participants described perinatal depression as puerperium psychosis in terms of severity and mostly diagnosed during the postnatal period. According to participants:

P2: It is a puerperal psychosis that mostly happens to mothers after giving birth.

P12: I think is depression that occurs after delivery and is called puerperal psychosis.

P13: It is depression that develops after delivery, during puerperium, puerperium psychosis.

P17: As I understand it, perinatal depression is a psychological problem during pregnancy and after delivery then is called peri-partum depression or puerperal psychosis.

*P18: Depending on what I see in the postnatal ward, because here most of the time we just pick the depression up under, like at extreme of it psychotic or psychosis or psychotic features in the postnatal period. But I feel like it is a significant diagnosis that we are supposed to look for in the prenatal period and thus we do not do it! By the time we get it, it is already too late because it is already down at the postnatal ward. (**Points where post-natal ward is, down floor**).*

3.3.3 Theme 2: Biopsychosocial factors causing perinatal depression

In the study, healthcare providers revealed multidimensional causes of perinatal depression. Healthcare providers described that perinatal depression could be caused by biological, psychological and social factors (biopsychosocial). Three sub-themes emerged from this theme, namely, biological, social and psychological factors.

3.3.3.1 Biological factors

The participants stated that biological factors, genetic factors, family history of depression and hormonal changes or imbalance influence perinatal depression. According to participants:

P5: It could be because of hormonal changes during pregnancy and postpartum.

*P9: I think it has to do with hormones. There is hormone imbalance during pregnancy and after pregnancy post-partum. This imbalance between the hormones, I think that's what triggers depression, I believe! (**Sounding confident**)*

P13: It's like it develops either during pregnancy and after delivery and sometimes could be genetic.

P12: Depression has factors that lead to it. Some could be genetic, if it runs in the family and may get depressed because of hormone imbalance.

P16: I think the first one that we all know, it could be inherited. It can be in the genes; it can happen because of family genes or is the line of the family.

3.3.3.2 Social factors

Socio-economic factors are a matter of concern among women during the perinatal period. The participants indicated that unemployment, poverty and financial struggles caused perinatal depression. According to participants:

P1: Let me say, also financial status maybe, if you know that you cannot take care of your baby when it is born when it comes to your finances.

P2: So I think it could be an economic matter. Sometimes it could be before a person gets pregnant and circumstances, they find themselves in that ... aa ... lead to depression. Let's say, for example, if a person loses their job while they are pregnant ... aa ... maybe before they got pregnant, they planned that they were going to get a baby. Now everything while they are pregnant, they lose their job.

P4: Maybe due to the fact that mothers are unemployed; there is no income to support the babies.

*P12: Other things that are involved include economy, financial problems, poverty, and for example unemployment. (**Participant counting on fingers when mentioning the causes of depression**).*

P14: It's quite diverse. I would say, it will probably be financial, food insecurities. I mean that poverty is the main problem in our society.

P17: Sometimes it is due to social issues, such as unemployment and poverty.

3.3.3.3 Psychological factors

Healthcare providers indicated receiving complaints from women about various relationship issues of concern, including denial of paternity, lack of support, infidelity, emotional abuse and

physical abuse, which could be a reason women developed perinatal depression. According to participants:

P1: Psychological matters, such as abuse, can lead to perinatal depression in cases. Also, if the father of the baby is not supportive, it can lead to perinatal depression.

P4: Due to rejection, more especially women who are not supported by partners, and paternity denied by fathers.

P13: Sometimes, when partners are not involved or supportive, abusive, and sometimes it is just when they can't cope with the baby. Maybe it is a crying baby and so on, so all those things contribute to perinatal depression'.

P14: It could be abusive relationships and unsupportive partners and so on.

P16: Mostly the others! I think the other one could be home and partner-related problems. You know, sometimes you find women who are pregnant and they have conflicts regarding partners who impregnated them; you see men denying pregnancies, and young girls are rejected by the family because of pregnancy.

P 17: Sometimes could be because of rejection from family members or rejection from partners, and some people do not have someone to take care of them.

3.3.4 Theme 3: Consequences of undetected and untreated perinatal depression

Most of the participants highlighted several consequences associated with undetected and untreated depression. Seven sub-themes emerged, namely suicide or harming others, infanticides and baby abandoning, miscarriages/premature births/Intra-uterine deaths, lack of self-care and care of baby, family discord, poor milk production, and chronic illness.

3.3.4.1 Suicide or harming others

Most of the participants understood that the consequences of untreated depression are devastating not only to women themselves and their babies, who may lose their mothers but also to their families. Women may resort to suicide, self-harm or harm to others. According to participants:

*P10: Sometimes they can even commit suicide, and we hear or receive some reports were women killing themselves during pregnancy or after birth (**face looks worried**).*

P15: If we leave untreated it can be worsen to a state where the patient might have even suicidal thoughts which can even lead to can even commit suicide.

P17: Some women end up killing themselves and, in the hospital, we have some incidences where patients want to harm nurses and doctors. Is a very serious matter which affect everyone, nurses, doctors, family and everyone around that woman.

P18: I think the impact can go to extreme when depression reach to that extreme it can lead to suicide.

3.3.4.2 Infanticide and baby abandoning

The participants expressed concern that infanticide and abandoning of babies could be a result of undetected and untreated perinatal depression. According to participants:

P8: It can have severe complications, in the sense that it may lead to some mothers carrying pregnancy until nine months then abandoning their babies.

*P11: They can harm their babies. It really contributes to a lot of things related to murder, just hear from the radio or newspaper that a mother dumped her baby or even threw the baby into a pit latrine/toilet there is a lot of that **(sad face)**.*

P12: They may end up committing murder or lead to hurt others, especially the baby because they are depressed. That is how hard it could be, and if untreated goes on until home, then also abandons or leaves the poor baby anywhere where it is not safe.

P16: Because we do not put much concern on maternal depression, it is overrated, so you will find some women after delivery killing themselves. So death has the most impact.

P18: I think the impact can go to extremes, it can lead to actually harming the baby by like physically killing the baby or dumping the baby in a pit latrine, dump site etc.

3.3.4.3 Miscarriages, premature births or intra-uterine deaths

The participants stressed that undetected and untreated perinatal depression may cause complications during pregnancy, such as miscarriage, intra-uterine death and premature birth. According to participants:

P2: The impact is the fact that the mother is supposed to focus on a healthy pregnancy, come for ANC follow up and everything, but once they have undetected depression the impact will be negative on the pregnancy health wise and also just the mental state of pregnant women so with that it actually leads to losing the baby, miscarriage or intra-uterine death (IUD). Those could be the negative impacts.

P3: If the mother is depressed, it can affect the pregnancy, the stress, and also she might ... you know, it may affect the baby growing and the pregnancy can end in miscarriage.

P7: Some women may have miscarriages due to depression.

P8: Some women even have abortions due to depression and sometimes you notice that their pregnancies are not growing normally. I think intrauterine growth retardation may be related to depression (just thinking).

3.3.4.4 Lack of self-care and care of baby

The participants believed that mothers who suffer from perinatal depression are at greater risk of neglecting themselves and their babies. In addition, the participants stated that mothers who are depressed become a burden to their families, and most of the time, family members do not know how to handle them. According to participants:

P4: They cannot take care of themselves, the newborn babies and the family at large. As you know, women are care takers.

P6: When you are not in a right state of mind to take good care of your child and other things as well, that can lead to unhealthy mothers and unhealthy babies.

P12: If they have untreated depression and mothers go home, then that also affects the family, who must deal with a depressed person, because they do not know how to handle her and then she causes stress to family members.

P18: I think the impact can go to extremes. They also have issues of lack of self-care and caring for the baby because they are in great or severe depression, especially when they are not able to care for the baby and they are not able to take care of themselves.

3.3.4.5 Family discord

The participants stated that there was a link between perinatal depression and family discord. They pointed out that untreated perinatal depression could bring disharmony in the family and put children at risk of developing depression. According to participants:

P4: When women with perinatal depression are not treated, it can lead to family dysfunction.

P12: With untreated depression, mothers could also neglect their families. I mean, women are careful and once their mental state is affected it can also affect the family.

P13: In general, because women are regarded as caretakers, if they have unstable minds, the family will suffer the consequences.

P18: I said the impact of untreated depression can go to extremes, most families become dysfunctional and could put children at risk of developing depression.

3.3.4.6 Poor milk production

The participants stated that some women complained about poor milk production when they came for their six-week postnatal follow-up, resulting in blaming themselves for the situation. This problem could either be a cause or consequence of perinatal depression. According to participants.

P4: Breastfeeding when a woman is depressed, there is poor milk production and baby will have poor nutrition and be prone to common colds and other diseases.

P5: The most impact could be reduction of milk, because we tend to see lot of women coming back especially after six weeks who are saying we do not have breast milk. So mostly stress has to do with lactation, because when they are stressed, it can cause the milk to become less.

P9: I noticed that afterwards when they are unable to have enough breast milk, they feel like they are responsible for babies not getting full. So, all these things may disturb their emotions.

*P18: I have come to realize that most mothers when they come for the six-week follow up complain that they do not have enough milk and blame themselves for not eating or resting enough. That might be because they are depressed? **(asking)***

3.3.4.7 Chronic illness

The participants expressed their concern that some of the chronic illnesses, such as high blood pressure, diabetes and cardiac conditions, treated daily in hospitals and clinics were caused by untreated depression. In addition, some of these mothers might not even be aware that they are suffering from depression. According to participants:

P5: We notice most of them when they are coming for six-week checks, they are having high blood pressure. This can also be the reason they are so busy and might not even know that they are suffering from depression. Because we have this misconception of depression or it can just be stress, but some of them are really going through depression, because of the babies and constantly crying. They are unable to sleep, and they must take care of other children and they must go back to work within three months which is a lot and overwhelming for most mothers.

P6: Complications can sometimes be that it can lead to other chronic illness, for example like higher blood pressure that can also cause problems to unborn babies.

*P18: Now I have concluded that perhaps most of the chronic illnesses that we are treating here every day are caused by depression, like high blood pressure, diabetic, cardiac conditions and so on. **(worried)***

3.3.5 Theme 4: Barriers preventing assessment of perinatal depression

In this study, the participants were able to identify several barriers preventing them from screening, identifying, and managing perinatal depression. Five sub-themes emerged, namely difficulty recognizing signs and symptoms of perinatal depression, lack of guidelines and screening tools, cultural influences, and lack of community (public) awareness, shortage of healthcare providers and perinatal mental health not considered part of perinatal care.

3.3.6.1 Difficulty recognizing signs and symptoms of perinatal depression.

The participants were able to list the signs and symptoms of perinatal depression. Regarding clinical settings, however, most of the signs and symptoms of perinatal depression were often

missed, undetected and untreated. The participants identified a lack of knowledge to recognize signs and symptoms of depression as a major barrier preventing them from rendering perinatal mental health care. Some participants stated that they were not trained about mental illness. One participant realized how depression had been undiagnosed and underestimated and the effects it has on pregnant women. Symptoms are mentioned and observed but minimized and not taken seriously by health care providers. According to participants:

P12: I think in the first place, it will be lack of knowledge, because some of us since we left university, there was no more inter training about mental health. And then you might look at the mother who might be showing some signs of depression, but you might think she is pretending or having a bad attitude. It could also be ignorance, instead of you taking it deeper to find out why the mother is acting in this manner, you just leave it or get angry at her because she is showing you attitudes. (Sounding confident)

P14: I think we lack knowledge on our side and patients' side to figure out signs and symptoms of depression.

P15: The barriers could be healthcare workers' knowledge; they are not doing comprehensive care, not going into deep detail, they are only treating. For example, if a patient is pregnant, they only pay attention to pregnancy. But do not look at a person as whole, looking at body, mind, and soul or as a spirit being and considering social adversaries.

P18: I think the barrier here is the lack of knowledge and the awareness. I feel like us healthcare workers, we are still (pausing) even if we know about depression, we underestimate the extent it can have on pregnant women and then it's like we are not aware of it, we just focus on other aspects, and we totally don't even talk about it. Sometimes a woman might even tell you, "You know doctor, my problem is I am not sleeping well", but even then we just say "you know that is because you are pregnant and because of the growing tummy" and so on. So, we are not aware, our focus and awareness toward it is very limited. Just now when I was reading the consent form, it crossed my mind that it may be that most of the complications that we are treating every day might be linked to depression. It seems we are focusing more on physical symptoms while leaving out emotional matters unattended! (feeling guilty). Sometimes they just come and when you ask what is wrong then they start crying, then you say, why are crying, then they will say, doctor it's not easy. But even if sometimes they say it is not easy, we still do not go that far, we are just like, 'okay come here let me check', then you check the baby is fine and everything is fine, and say you can go. But her issue is not that the baby is fine, but she is going into depression that we are failing to pick. (regretting the matter)

3.3.5.2 Lack of guidelines and screening tools

When the participants asked if they are screening for perinatal depression some admitted that they are not screening due to a lack of guidelines and screening tools. Some indicated

they were “doing something”, for instance, screening for social life issues, asking women about family background, living environment, substance abuse and looking for signs of depression, such as sadness and isolation. According to participants:

P2: No screening to detect depression is done, but we do ask for other social issues such as alcohol abuse, smoking, and other substance use. So as social workers, we screen and on the fact of depression we then look at symptoms of depression, such as sadness, isolation, not eating etc ... If the mother is going through some social issues.

P7: Because we just ask what is your complaint today, we do not go into details with patients, just to open up with you. It depends also on the trust and if they are not trusting us enough to come and complain to us that “Sister, I am having this problem and this, and this! Where can I go to be helped?” and so on.

*P8: I won't say there is not any! No, no (**shaking the head**) there is not much! I do not know, unless there is and I am not aware. That's one challenge we are facing in that sense because not everyone is outspoken and we don't have a tool that we can use. We only diagnose with visible sign.*

P3: For now, we don't have the tools or guidelines, but I think the screening of patients is not here. It is only when you see a patient physically crying, then you will ask what is wrong. Maybe mothers lose the baby, that's the only time we refer them to social workers, but we don't do the screening for every mother to see whether they are depressed. We ask about the family history, the background and also the living conditions that they are living in, because all of these could bring the mental health of a person into either negative or positive light. So then once we have accessed all that and we see that they have symptoms of depression then as social workers we are supposed to deal with social issues.

P18: So far I am not aware of anything that is done, any programme so far yet. I stand to be corrected, but even in health education I doubt if anybody focuses on depression and depressive issues. I feel like there are only other things apart from it. And of course, us here as doctors, I know that we don't always put emphasis on it.

3.3.6.3 Cultural influences and lack of community awareness about perinatal depression

The participants expressed concern that cultural influences, such as stigma, norms or beliefs about perinatal depression and witchcraft, might indirectly affect the implementation of perinatal depression health services. They further stressed that some community members might not be aware that maternal depression is treatable. According to participants:

*P4: It could be cultural influences such as that depression does not exist, stigma, norms, and judgement, or that mothers are scared to be judged or labelled as mad. (**laughing**)*

P9: They may not feel comfortable to open up, to really say they are going through depression and stigma as well.

P11: Some cultural beliefs have a negative influence on health-seeking behaviour. Normally in some cultures, people believe so much in witchcraft and spirituality. Before someone is brought to hospital they should consult a witchdoctor.

P13: At the community level, I think it's the stigma or discrimination against mental illness. So, some patients will be scared to be seen around a mental health facility.

P16: When patients do not open up, that could be due to fear or stigma attached to mental illness. Sometimes they think that even if they tell us, we won't really help them, lack of trust about healthcare providers, or even on family members or partners.

P17: On the patients' side I think stigmas, as people with mental illness are being labelled in the community, some may not accept it due fear of stigma. and lack of awareness to recognize signs and symptoms of depression.

3.3.6.4 Shortage of healthcare providers

The participants expressed concern about the current shortage of staff, which could hinder maternal mental health services. They indicated that screening for perinatal depression requires support from a wider multidisciplinary team, ideally with social workers, psychiatrists, psychologists, community counsellors, families, and community members. Some participants maintained that screening, identification and management of perinatal depression would be more easily accepted if it involved a multidisciplinary team. There is a need to work together in a combined approach to ensure women receive the best possible holistic and comprehensive care. According to participants:

P3: Shortage of staff. Now we are overwhelmed with work, so that would be the last thing that you even think of doing because you would consider it a waste of time. But if there was someone specifically, you know, allocated for that, I think it would help.

*P7: **(taking a deep breath)** With shortage of staff I think people have to or maybe, I do not know, social workers should also talk to these people more because social workers are just in their offices waiting for a referral. Even if patients are here, they will never call them. Why can't social workers just take it randomly, like today I want to speak to you instead of just sitting in their offices waiting for a referral? Because there are hundreds of patients that are coming here. I think by doing that they might pick up one or two patients with depression.*

P10: To avoid shortage of staff, from the beginning we should learn to involve everyone. We should work as a team that involves everyone: midwives, doctors, social workers, psychologists, community counsellors, and their family members.

P14: As healthcare providers we need to be keen first of all when dealing with these mothers. You take your history and involve everyone in the disciplinary corps when managing these patients. When you find yourself as a nurse you fail to pick up a patient with depression, but

the doctor will pick it up, so the whole team needs to be involved when managing these patients.

(participant speaking calmly)

P17: I think among healthcare workers, it could be hindered by shortage of staff. Nurses and doctors are the most abused professions when it comes to workload. But other professions like social workers and psychologists just mostly depend on referral cases meaning that if there is no referral, no work for them. While nurses have to interview, screen and refer, and sometimes we feel overwhelmed by the work. **(Participant's face appeared angry)**

P18: I think shortage of staff and patient load, because if you come here on Monday and Tuesday patients are all over, and as a healthcare provider you just think of what to do to finish them up.

3.3.5.5 Perinatal mental health not considered part of perinatal care.

The participants indicated that they did not consider mental health as part of perinatal care. One participant commented that during their undergraduate training, maternal mental health was not endorsed as much as other complications affecting women during pregnancy, such as eclampsia and diabetes. Screening is not seen as part of healthcare workers' work responsibilities. Another participant stated that women just came to deliver their babies and not to be screened for perinatal depression. According to participants:

P1: Not part of perinatal care! I don't know about doctors, but us midwives are not really trained to deal with maternal mental health illness. We are more trained to deal with other complications arising during pregnancy and postnatal such as eclampsia, diabetes etc.

P5: It will take a very long time before it is even considered and processed and everything. It will take time because nurses and doctors get used to their routine work, they will be like it's not part of the job.

P10: I think they are likely not to, because generally people don't really care about other people's mental state. So, I think they will take it like, no, the patients are just here to deliver then will go. They are here for their babies, not for that, I think they will take it that way. Or maybe if the patient is not fine they can go and see a social worker. But sometimes a patient needs to see a psychologist; they don't need a social worker all the times or sometimes, they need a distraction from what they are going through.

P13: **(Taking deep breaths before responding)** Resistance to change from us, because we want to stick to our routine, so we would say "this is not our part so other people should come in ...". So we are not willing to go the extra mile **(laughing)**.

P17: Until so far or as far as we know, I do not see something in place. Maternal mental health is not even part of our antenatal care guidelines that we are using now. We do not even have guidelines that we should discuss this and this with women, it is not here. It's only when they manifest and it is mainly in the postnatal period that we decide that okay, let's now refer to a social worker, this and this, but in general we don't put real effort so far.

3.3.7 Theme 5: Interventions to assess maternal mental health

The participants suggested crucial interventions that would assist in assessing maternal mental health. Three sub-themes emerged from this theme, namely timing of optimal screening, provide psychosocial interventions, and pharmacological intervention.

3.3.7.1 Timing of optimal screening

The participants expressed a need for timing of screening of perinatal depression. Timely identification of potential perinatal depression risk could ease prevention and management of perinatal depression. Some participants indicated that screening for depression during the first ante-natal care visit would be important for early identification and management of perinatal depression. Others stated that screening at the first contact would be challenging because it would overlap with other comprehensive assessments. In addition, inadequate time would not allow for building a relationship and trust to ask probing and sensitive questions. According to participants:

P1: During antenatal care when they come for their first or third visit or maybe for their follow-up, there is that questionnaire on which they are asked questions related to depression.

P3: It would be better to screen them during the first ANC visit, but there are already various assessment done, so perhaps can be done on second first.

P6: The best way to help women with perinatal depression, for example when they are starting antenatal care, is may be if you go into detail when it comes to their social lives. That way you will know that this person, here and there is maybe showing risk behaviour that may lead to mental or perinatal depression.

P8: For early identification I would say maybe at all first ANC visits they should have a special social worker appointed there.

P11: During the first ANC visit would be much better. However, there are too many activities going on already and it is the first time and women might be a little bit uncomfortable to open up. I propose second and third visits where not much is done.

P15: The best intervention of timely screening should start at first ANC visit, so where patients are being assessed, being interviewed, diagnosed, and managed immediately.

3.3.7.2 Provide psychosocial interventions

The participants suggested direct counselling as an intervention for women diagnosed with perinatal depression and indicated the need to train all healthcare providers on direct counselling. No other intervention was mentioned. This revealed limited knowledge about other health support interventions that could be used to prevent and alleviate symptoms of perinatal depression. According to participants:

P1: Direct counselling would help the women diagnosed with perinatal depression.

P3: I think women would prefer one-on-one counselling because counselling done in groups may not be effective.

P6: All women diagnosed with perinatal depression should be offered one-on-one counselling.

P8: To help women diagnosed with perinatal depression, all health care providers should be trained on counselling because not everyone can do formal counselling.

P12: Direct counselling should be offered to all women diagnosed with perinatal depression and to do that all of us need to be trained.

P18: Direct counselling should be available to all women diagnosed with depression. Apart from social workers we think all midwives, doctors and our community counsellors should be trained on how to counsel women with depression.

3.3.7.3 Pharmacological intervention

The participants suggested that medication was needed for women who did not respond to counselling and those with severe depression. The participants also believed that the use of medication could be limited to avoid detrimental effects for both mother and baby. According to participants:

P9: Perhaps those with severe depression and not responding to counselling should be prescribed medicine.

P10: I think doctors should prescribe medication for those women complaining of insomnia because lack of sleep may lead into depression.

P14: To avoid detrimental action, I think it would be better if women with severe depression are prescribed treatment as soon as possible and not just counselling.

P18: As a doctor, I think we should also provide pharmaceuticals when needed for those who do not respond to other interventions such as counselling.

3.3.8 Theme 6: Integration of perinatal mental health into the primary health care setting

The participants suggested that perinatal mental health should be integrated into existing primary healthcare providers. Four sub-themes emerged from this theme, namely including screening tool in the perinatal records that is translated into five local languages, provide adequate resources, create awareness in the community, and outline clear referral pathways.

3.3.8.1 Include a brief screening tool in the perinatal records translated into five local languages

For integration of maternal mental health into PHC to be successful, the screening tool should be culturally sensitive. The participants suggested that the tool be translated into the five most spoken local languages so that women could understand it better. The participants stated that the tool should be short and easy to interpret to accommodate their busy schedule. According to participants:

P1: You know how busy this place can be. What is needed here is something short and perhaps written in local languages so that mother would understand it quickly.

P8: A short screening tool that can detect those women with perinatal depression symptoms within a few minutes.

P9: And there is also a need for a short tool that can detect depression so that won't take much time as well and if, if only possible, also translated into our local languages, so that everyone would understand that's all I can say.

P11: I think, maybe we can just use the paper that you are using. It seems like it picks up a lot of women who are depressed! It is really working and is better when translated into our local languages, so that it accommodates everyone.

P16: We just put it to work by ensuring that every woman who comes to the clinic should have her mental health assessed with a short assessment tool. The tool should be translated into different local languages.

P17: I think the tool in the guidelines should be translated into different indigenous local languages.

3.3.8.2 Provide adequate resources

The participants stated that to successfully integrate maternal mental health into primary health care, the government should provide adequate resources, including human resources, financial resources, marketing opportunities for awareness campaigns and infrastructure. According to participants:

P2: What we need are resources to integrate it; for example, human and financial resources.

P3: There is a need for more human resources. If we had someone like a social worker who could screen all the patients, especially on the first visit. If they go through her or him, just to be screened and to be asked about their social well-being, their mental status and all of that. So if every patient had an opportunity to be accessed that would help.

P4: There is a need for human resources. We need more nurses, doctors, social workers and even more rooms for screening.

P12: Maybe, resources, need to go to public on a radio station to alert the community, it might be a long process, it might cost the ministry few coins to cater for slots in radio stations.

P6: But on integration it requires money or funding for implementation. That will be a problem because the government has a 'no money' attitude and everything needs government approval.

P7: However, if the programme or guidelines need some funding to be implemented, I foresee a delay because government never has money. (laughed)

3.3.8.3 Create awareness in the community

The participants indicated that awareness is needed so that people would know what perinatal depression is and where the services can be accessed or are available. The participants suggested maternal mental health awareness should be included in the first visit as health education, and people like psychologists and social workers should be designated for that purpose only. This would serve as a link for women with depression to get counselling within the community or when they cannot reach healthcare facilities, as in an emergency. It would also assist in ensuring delegation, referral and shared responsibilities of tasks between community members and the health professionals based at primary healthcare facilities. According to participants:

P2: I think, firstly, women need to know that during pregnancy they go through certain hormone changes that could also make them prone to depression. And also give them an awareness of mental illness that occurs during pregnancy and after giving birth or even as a person that is not pregnant, so give them awareness on mental issues.

P9: I think mental health awareness can be included in the first visit to health education. And there can be people designated for that purpose only. And social workers or psychologists for that purpose only and if need be, they can be referred to psychiatrists. Or there can be designated days specifically for that as well.

P13: People must be sensitised about, even the community must be sensitized via different platforms or radio stations in different languages.

P14: Giving health education about maternal depression, involving social workers at ground level and training community counsellors to serve as a link for those women with depression to get counselling within the community or when they cannot reach healthcare facilities, generally in an emergency situation.

P15: They should also be educated when and where to report, when they are going through any violence in the relationship or family, so that such things should be avoided because sometimes they can suffer because they do not know what to do or where to go to look for help.

P17: I think psychologists and social workers should put it in their awareness campaign, just to tell people that if you think you have depression or have a problem that may lead to depression come to our clinic, we will help you. If you are always thinking of killing yourself or your baby, you can also come to the clinic. I think, that may help because people will think help is available.

3.3.8.4 Outline clear referral pathways

The participants expressed concern at the lack of established procedures for the pathways of care following the identification of a potential maternal depression issue. According to participants.

P4: There are no clear policies or guidelines on what to do or even on what medication should be given before a patient is referred, but with other disorders such as eclampsia there are clear procedures and policies.

P14: Clear protocols are needed and once you pick up a condition or something abnormal with the patient you refer her immediately, don't keep it and say you will do it when she comes for next visit. Once you pick up anything refer it to relevant people.

P17: There are no policies that guide us on what to do when a mother is identified with depression or other mental disorders. If we have someone that has any mental problem, what and what should be done before referral, but we just refer them to the mental hospital like that. I think clear instructions are needed, so that we can do the right thing for our patients.

P18: No protocols about what to do with mothers who are experiencing depression and sometimes we struggle to refer them, because we just don't know what to do.

3.3.9 Theme 7: Acceptability and feasibility of interventions utility

The participants indicated their willingness to implement interventions to screen and manage perinatal depression. Two sub-themes emerged in this theme, namely feasibility and acceptability of integration of mental health screening and psychosocial care into perinatal care, training, and supervision.

3.3.9.1 Feasibility and acceptability of integration of mental health screening and psychosocial care into perinatal care

The participants were optimistic about integrating mental health and psychosocial care into perinatal care, which would be accepted by the mothers as long as they were informed about the purpose and significance of these interventions. Other concerns were that such screening should not interfere with the normal workflow and time allocated for assessments. According to participants:

P3: Women will welcome such help because they will really get that attention like someone asking how are you? Is there any problem? Now we only focus on the physical health of the patients but socially, and mentally we don't go that far. So, if you are given the opportunity for someone to assess and ask you if you need any help, it will be acceptable.

P4: Yes I do think it will be accepted, as long as they are informed about the purpose of the intervention, why it is important for them to be screened, why it is important for them to be counselled, why it is important for them to take treatment.

P5: I think it will be accepted here at the clinics and even in the community. It is a good thing we screen for TB and HIV and these two are decreasing among the mothers. Why can't we shift to something that is more common and affects mothers and babies very badly?

P9: I think when it is integrated in such a way that does not affect the normal flow of works or does not delay other things or people don't spend extra time or don't work extra hours, I think it can be accepted provided that is a smooth transition or smooth integration.

*P16: They will accept them! (**raising her voice**) because we all know the importance of maternal mental health and the effect of depression among mothers and here we all know that we need a social worker.*

However, some participants had mixed reactions and doubts about the feasibility of screening for perinatal depression in their settings. They feared that the feasibility might be hindered by the financial difficulties the government is currently facing. According to participants:

P2: Unless the tool will not require financial inputs then it will be feasible, due to financial difficulty the government would pronounce it as if it could not afford it.

*P4: I am thinking of its feasibility if it involves money or funding. Lack of money may hinder its feasibility because what if we accept it and there is no money? (**asking**)*

P7: But if it requires money or budgeting I query its feasibility because our government is forever without money.

P13: So the intervention will be acceptable but its feasibility only depends on the government or management.

3.3.9.2 Training and supervision

The participants indicated that training and supervision for all healthcare providers are required to sustain the interventions to support women with perinatal depression. According to participants:

P10: The guidelines would be accepted, however we need to involve everyone and maybe we have to train everyone, nurses, doctors, social workers and even community counsellors and also maybe there should be a supervisor.

P12: We need to be trained and continuous supervision to check whether everything is going the way supposed to be.

P14: All people who are involved they are all trained and are also part of interventions to train the staff, so that they can be able to pick those conditions the patients have.

P18: *I think training and supervision might be needed or involved because when I looked at the tool, people will need training to interpret it.*

3.4 Conclusion

This chapter presented the findings of phase 1, objectives 1,2, 3 and 4. The main themes and sub-themes of the findings were interpreted. Chapter 4 discusses the findings of phase 1 objectives 1, 2, 3 and 4 with reference to literature reviewed and the integration of the qualitative findings.

CHAPTER 4 PHASE 1: DISCUSSION AND INTEGRATION OF THE QUALITATIVE FINDINGS

4.1 Introduction

Chapter 3 interpreted the findings of the qualitative study. The purpose of Chapter four is to present the findings of phase one, which was conducted to explore and describe the experience and needs of women with perinatal depression, experiences of healthcare providers working with women with perinatal depression and barriers thereafter. The researcher will discuss the findings to give meaning. Similar themes and subthemes are discussed together. This chapter presents the integration of the qualitative findings and concluding remarks.

4.2.1 Participants' demographic profile

The researcher interviewed 21 women with perinatal depression. The participants' ages ranged between 18 and 41 years old. Of the participants, four were between 18 and 19 years old, which is regarded as adolescent pregnancy; two were between 20 and 25 years old, and 15 were between 26 and 41 years old. In 2016, Kamalak, Köçüç, Köçüç, Hizli, Akçal, Kafali, Canbal and Isaoğlu (2016:427) found that globally around 11 million adolescent girls gave birth each year which contributed to approximately 11% of all births. An analysis of factors influencing teenage pregnancy in Namibia indicated that 20.4% had experienced adolescent pregnancy and higher levels were recorded in three northern regions: Kavango 15%, Ohangwena 11.6%, and Oshana with 3.4% (Indongo 2020:4). Stress and perinatal depression have been found common among young mothers (Phiri, Nyamaruze & Akintola 2021:6; Musyimi, Mutiso, Nyamai, Ebuenyi & Ndetei 2020:4; Simons, Thorpe, Jones, Lewis, Tobin & Ickovics 2020:90).

Of the participants, six were employed and 15 were unemployed. These findings concurred with other studies that identified that being unemployed, not engaged in any financially gaining activities, and with low income levels were risk factors of perinatal depression (Davies, Schneider, Nyatsanza & Lund 2016: 304; Ng'oma, Bitew, Kaiyo-Utete, Hanlon, Honikman & Stewart 2019:58).

Of the participants, 14 had antenatal depression and seven had postnatal depression. Antenatal depression has been found to be a predictor of postnatal depression, as women with a history of antenatal depression are at increased risk of postnatal depression (Ogbo,

Eastwood, Hendry, Jalaludin, Agho, Barnett, & Page 2018:3; Sutter-Dallay, Glangeaud-Freudenthal, Guedeney & Riecher-Rössler 2016:169). This implies that although depressive symptoms are probably common in pregnancy, they often remain undetected and get worse during the postnatal period.

4.2.1 Theme 1: Awareness of depression

In the study, both women with perinatal depression and healthcare providers were much aware of depression symptoms. Symptoms of depression reported by participants were similar with DSM 5 description of depression (see description in chapter 1 section 1.10). Similar studies in Sub-Saharan Africa have reported symptoms of depression similar to those described in DSM 5 (Adeponle, Groleau, Kol, Kirmayer, Gureje 2017: 6 ;Davies, Schneider, Nyatsanza, Lund 2016:292; Ng'oma et al 2019:21). A systematic review of qualitative literature conducted around the world how depression is experienced revealed similar features including social isolation, loneliness, fatigue, poor appetite, weight gain loss and insomnia (Haroz et al 2017:157).

Similar findings reported in a related study conducted by Asare and Rodriguez-Muñoz (2022:8) indicated that healthcare providers had knowledge of the signs and symptoms of perinatal depression. The authors add the symptoms: included being tearful, social withdrawal, lack of concentration during clinical consultation and interactions, and feeling overwhelmed with their new role as mothers and unable to accept the new role (Asare & Rodriguez-Muñoz 2022:8). Healthcare providers were however unable to detect and manage perinatal depression in clinical settings. On the contrary, a study in India found that healthcare providers had less knowledge about perinatal depression (Ransing, Kukreti, Deshpande, Godake, Neelam, Raghuvver, Mahadevaiah et al 2020:5). Some of the healthcare providers believed that perinatal depression was not a serious illness and regarded it as a normal part of pregnancy (Ransing et al 2020:5). The awareness of perinatal depression is described according to three sub-themes below.

4.2.2.1 Manifestations of perinatal depression

The participants described their emotional problems and somatic symptoms, including insomnia, sadness, irritability, fatigue, sleeplessness, headache, loss of appetite and weight loss. Insomnia and eating disturbances emerged as consistent symptoms identified by the participants. Highet, Stevenson, Purtell and Coe (2014:183) found an association between insomnia and mental health disorders and emphasised lack of sleep as a potential symptom of depression. In Brazil, Fonseca, Silva and Canavarro (2017:202) found that 79% of women correctly identified the symptoms of depression, including guilt, loss of confidence and poor

self-esteem, changes in sleep and feeding patterns. In a systematic review on how depression is experienced, Haroz, Ritchey, Bass, Kohrt, Augustinavicius, Michalopoulos, Burkey and Bolton (2017:157) found that the features included loneliness, fatigue, insomnia, poor appetite, and weight loss or gain. It is therefore important for healthcare providers to have adequate knowledge allow them to identify and manage perinatal depression.

4.2.2.2 Conceptualisations of perinatal depression

The participants conceptualised depression as “thinking too much” or ruminations related to social events. A systematic review revealed that “thinking too much” was used as an idiom of distress in sub-Saharan Africa and was expressed among women experiencing perinatal depression (Backe, Bosire, Kim, & Mendenhall 2021:655). This reflects that women with perinatal depression are consumed with too many thoughts. Overthinking is considered as a way of expressing mental distress, providing insights into experiences of depression that should not be ignored when mentioned during assessment (Backe et al 2021:656). Considering local concepts of mental illness, and the associated health care-seeking behaviour, it is vital to develop effective public mental health interventions for low-resource settings (Ventevogel, Jordans, Reis & de Jong 2013:2).

4.2.2.3 Suicidal ideations

The participants believed that their burdens were due to social challenges which forced them to have suicidal ideations. Some also believed that taking their own life by committing suicide would free them of all their challenges. Gelaye, Kajeepeta and Williams (2016:749) found that suicidal ideation was more common among pregnant women than the general population. The prevalence of suicidal ideation may be higher among pregnant women than in women during the postnatal period (Enătescu, Craina, Gluhovschi, Giurgi-Onocu, Hogeia et al 2021:4; Al-Halabí, Garcia-Haro, Rodriguez- Muñoz & Fonseca-Pedrero 2021:161). A study among women living with HIV in Malawi found that 58% of the women diagnosed with perinatal depression reported suicidal thoughts and believed that taking their own life would free them from their problems (LeMasters, Dussault, Barrington, Bengtson et al 2020:4). In Brazil, Castro eCoutoet, Brancaglion, Cardoso, Faria, Garcia, Nicolato, Corrêa al (2016:344) found that pregnant women who lived in urban areas reported low perceived social support and presented with suicidal ideations.

Suicide risk and suicide attempts relate to biological, psychological, social, and cultural factors experienced during motherhood in some women (Al-Halabí, García-Haro, Rodríguez-Muñoz & Fonseca-Pedrero 2021:161).

As part of suicide prevention, the WHO (2016) emphasises the identification of high-risk groups and factors central to attempted suicide. The WHO provides actionable steps for countries based on their current resources and context to advance suicide prevention (WHO, 2016). In 2021, the WHO produced the *Live life: guide on suicide prevention* to assist countries to prevent suicide.

Exacerbating factors for suicide and suicide attempts include unplanned pregnancy, and poverty. In their study among US pregnant women with risk of suicidal behaviour, Zhong, Gelaye, Smoller, Avillach, Cai and Williams (2018:8) found that they were younger, mainly black, and with low socioeconomic status. A study on risk factors for suicide attempts in pregnancy and the post-partum period in women with serious mental illnesses found that 11.68% of attempted suicides occurred in the perinatal period, of which 3.71% were during pregnancy and 7.97% during the post-partum period (Gressier et al 2017:286).

According to Birx et al (2011:27), suicidal thoughts must be considered seriously. Suicidal ideations or thoughts expose the depths of hopelessness or desperation that some women experience, which calls for urgent public health interventions.

4.2.3 Theme 2: Effects of depression on daily living activities

In the general population depression is ranked as one of the leading causes of disability, taking away a person's ability to appreciate life and decreases a person's capacity to undertake even the simplest daily tasks (Dadi, Miller, Bisetegn, et al 2020:1). Depression is known to affect more women than men and around 10-25% of women compared to 5-12% of men (Dadi, Miller & Mwanri, 2020:2). Women of childbearing age are at a great risk of depression. Perinatal depression not only adds to the global load of morbidity and mortality but has also other negative effects, mostly impairment in the functioning of daily activities (Mall, Honikman, Evans, Swartz & Lund 2014:1092).

Depression affected daily activities and self-care activities and the women's functioning capability. These findings are consistent with what was previously reported in study by perinatal women where activities impeded by depression includes completion of education (in the case of adolescent mothers), completion of household tasks, and ability to complete tasks at work (Mall et al 2014:1095). The effects of depression on daily living activities will be described under four sub-themes in the sections that follow.

4.2.3.1 Difficulty to perform daily tasks

The participants described feeling overwhelmed by their circumstances, inability to concentrate and complete their household chores. A study on the prevalence and determinants of antenatal depression among pregnant women in a predominantly rural population in Ghana found an increased prevalence of depression related to increased disability (Weobong, Soremekun, Ten Asbroek, Amenga-Etego, Danso, Owusu-Agyei, Prince & Kirkwood 2014:5). Untreated perinatal depression related to worries and suffering affected migrant and refugee women's ability to engage in paid work and care for the family (Fellmeth et al 2021:2). Perinatal depression also affected children's physical health and socio-emotional development resulting in low birth weight and lower rates of breastfeeding (Cook, Ayers & Horsch 2018:2; Garthus-Niegel, Ayers, Martini, Von Soest & Eberhard-Gran 2017:12).

Studies in Malawi and South Africa found that depressed mothers were unable to perform daily activities (Ng'oma, Meltzer-Brody, Chirwa & Stewart 2019:13; Mall et al 2014:1094). In Uganda and elsewhere, women who are unable to care for their families are regarded as lazy and a source of shame to the family. In addition, because women are regarded as caretakers, the inability to perform daily activities due to maternal depression has been found to affect children's nutrition, growth and development (Ashaba, Rukundo, Beinempaka, Ntaro & Leblanc 2015:1). For some women, the perinatal period is a time of stress presenting with loss of interest, anxiety and concentration problems. Loss of interest or pleasure, problems with concentration and psychomotor agitation are signs and symptoms of depression (Bix et al 2011:163; Haroz et al 2017:151).

4.2.3.2 Social isolation

The participants stated that life became a challenge and they struggled with interpersonal isolation, and most of the time had no desire to associate with others. Social isolation, withdrawal and unhealthy thinking functioned to worsen depression. Trapped women in the negative cycle of depression and social distancing from others, not wanting to talk to or see anyone. Pinar, Bedford, Ersser, and McMillan (2022:3) indicated in their study that women reported wanting to be alone, isolate themselves and distancing themselves from other. The authors adds that women judged themselves not being good enough or not being a good mother and assumed 'everyone would be judge them.

Highet, Stevenson, Purtell and Coe (2014:183) found that a strong experience of social isolation was a symptom of depression. A cohort study with British Pakistani mothers living

close to London revealed that they were socially isolated, had little social support, and were dissatisfied with the support they received from healthcare providers (Husain, Cruickshank, Husain, Khan, Tomenson & Rahman 2012:276).

4.2.3.3 Feelings of disappointment

The participants reported struggling with self-blame because they were unable to meet their expectations of how they wanted to be or become in life. One participant believed that she supposed to finish school, get job and get married then have children and she could be more independent. Another woman blamed herself on how at age 24 she end up having 3 kids, unemployed and infected with HIV virus. These findings concur with Kathree (2020:95) who found that women blamed themselves for making ill-advised choices. Blaming attitudes triggered depressive feelings, sadness and recurring intrusive thoughts related to past mistakes (Kathree 2020:95).

4.2.3.4 Effects on the family

The findings indicated that perinatal depression had an effect on the participants' families. A study on the prevalence and risk factors of postpartum depression in Middle-Eastern/Arab women found that perinatal depression had severe effects on the mother's physical health, mental well-being, the foetus, baby, wider family, and the community at large (Haque, Namavar & Breene 2015:69). A cluster randomized trial in Pakistan on the effectiveness of a peer-delivered, psychosocial intervention on maternal depression and child development at three years of age revealed that prenatal depression had tenacious effects on the child's socio-emotional skills that could not be easily inverted even with the use of psychosocial interventions (Maselko et al 2020:775). Mothers with perinatal depression, mostly postnatal depression, had greater odds of not referring their children for emotional and language development interventions (Gelaye, Rondon, Araya & Williams 2016:973).

4.2.4 Theme 3: Multidimensional causes of perinatal depression

Perinatal depression is the outcome of biological, sociological and psychological factors (biopsychosocial factors) (Howard, Molyneaux, Dennis, Rochat, Stein & Milgrom 2014:1778). Knowledge and understanding of social, biological, psychological, personal, epidemiological, and social-cultural factors that increase the risk of depression as well as protective factors that reduce the risk is needed (Howard Ryan, Trevillion, Anderson, Bick, Bye, Byford et al 2018:57). Blount, Adams, Anderson-Berry, Hanson, Schneider and Pendyala (2021:1) emphasize that these factors need to be considered when providing maternal mental health

care. The multidimensional causes of perinatal depression will be described under eight sub-themes below.

4.2.4.1 Financial struggles

The findings indicated that financial struggles rendered some participants unable to provide for their families. At the time of the interview the majority of the perinatal women were not employed and not engaged in any financially gaining activity. Perinatal depression has been associated with history of financial struggle, poverty, unemployment in study by (Ng'oma et al 2019:21). In Kenya, Madeghe, Kogi-Makau, Ngala and Kuma (2021:9) reported that pregnant women who developed perinatal depression were struggling financially due to lack of stable income and subsequent challenges to provide for their families. In this current study, financial and subsequent socio-economic pressures on some participants emerged as a pervasive causal factor of depression. In China, participants perceived a negative impact on livelihood as the main predictor of mental health problems (Guo, Feng, Wang & van Ijzendoorn 2020:15). The mental health consequences of the COVID-19 lockdown impact on livelihood should not be undervalued.

4.2.4.2 Unemployment and poverty

The study was conducted in government hospitals, and most of the women who use these facilities are without medical aid due to unemployment. Unemployment and poverty remain a gendered phenomenon in Namibia. An estimated 42% of the country's households are headed by women, of whom 32% are likely to be poor (Stiftung 2014:138). In 2020, Windhoek, where the study was conducted, had a 33.4% unemployment rate and a 46.1% youth unemployment rate (Lilungwe 2020:13). Poverty, unemployment and food insecurity are reflected in the persistent disparities in health access and outcomes seen across all income groups, races and geographic locations (MOHSS 2017:6). The high socio-economic inequality in Namibia is of great concern and needs political will to improve the situation.

Social factors that influence perinatal depression include socioeconomic status, unemployment and poverty, (Bikinesi, Mash & Joyner 2017:5; Chorwe-Sungani & Chipps 2018:1). Worries related to lower socioeconomic status may lead to worse mental and physical health during the perinatal period (Ogbo et al. 2018:3; Maselko et al. 2018:8). Unemployment and poverty have been linked to perinatal depression in low- and middle-income countries (Rahman et al 2013:596; Weobong, Soremekun, Ten Asbroek, Amenga-Etego et al 2014:2; Baron et al 2014:93). In Malawi, participants reported that poverty, struggling to meet their daily needs, having no food, having no means of earning a living and

poor living conditions were a source of perinatal depression. Fellmeth, Plugge, Fazel, Nosten, Oo, Pimanpanarak, Phichitpadungtham et al (2021:1) found that perinatal depression commonly affected women living in poverty. In Namibia, poverty, rapid socio-cultural, technological and political changes, overcrowding, and unemployment make mental health problems such as perinatal depression a major health problem (Amathila 2012:4).

4.2.4.3 Lack of social and emotional support

In this study, lack of social support was a major cause of perinatal depression among the participants. Lack of social support from family members and partners contributed significantly to the burden of depression. The absence of social support is an independent predictor of perinatal depression (Hirschler, Gemmill & Milgrom 2021:11). Reliable social support or having someone to depend on when needed helps protect against perinatal bonding failure and depression among mothers (Ohara, Okada, Aleksic, Morikawa, Kubota, Nakamura, Shiino, Yamauchi, Uno et al 2017:11).

During the perinatal period, low social support is related to depression, anxiety, and self-harm (Bedaso, Adams, Peng & Sibbritt 2021:19). Pregnant women who received poor emotional support were more likely to develop mental illness compared to ones who received good emotional support. The findings of this study concur with a study in an urban low-income settlement in Nairobi, Kenya, where participants indicated that they lacked emotional support from the partners responsible for their pregnancy, which triggered perinatal depression (Madeghe, Kogi-Makau, Ngala & Kumar 2021:9). Effective social support protects women from depression, anxiety, and self-harm. Social support is essential in the transition to motherhood, influences emotional coping strategies, directly affects emotional strength, lessens the effects of stressful life events, and prevents perinatal depression (Hirschler, Gemmill & Milgrom 2021:12).

4.2.4.4 Gender-based violence

The findings show that another central concern of some participants was gender-based violence. The participants were exposed to interpersonal violence in the form of verbal and physical abuse, which was associated with husbands' alcohol use. At Outapi Clinic in Namibia, Bikinesi, Mash and Joyner (2017:5) found that 8.0% of pregnant women had experienced gender-based violence, 10.1% intimate partner violence, and 9.1% in the 12 months before pregnancy,. Emotional abuse was the commonest form of abuse, with abusive words and insults which contribute to low self-esteem (Bikinesi et al 2017:5). There is also a history of gender-based violence embedded in traditional African patriarchy that is often

denied. Edwards-Jauch (2016:49) states that gender-based violence in Namibia is directly linked to unequal relationships of power.

Globally, risk factors associated with perinatal depression include lack of support, intimate partner violence, younger mothers, a history of abuse or domestic violence, absence of support from the partner and family, intimate partner relationship problems, lack of paternal support for the child, and marital or partner conflicts (Biaggi, Conroy, Pawlby & Pariante 2016:64; Hutchens & Kearney 2020:96; Ohara et al 2017:1). Marital and relationship conflicts are strong risk factors for perinatal depression among women in Asia and Africa (George & Noronha 2018:45).

A review of the prevalence of gender-based violence during the perinatal period revealed that gender-based violence affected families and individuals from all backgrounds regardless of their ethnicity, socioeconomic status, sexual orientation and religion (Mojahed, Alaidarous, Kopp, Pogarell, Thiel & Garthus-Niegel 2021:1). Moreover, the perinatal period is regarded as a time of vulnerability to violence because of physical, emotional, social, and economic demands and needs involved.

4.2.4.5 Paternity denial and rejection

The finding of paternity denial among the adolescents and the lack of commitment from the male partners who showed no interest in accepting responsibilities and parental obligations is of concern. Around 11 million adolescent girls give birth each year, which contributes to approximately 11% of all births globally (Kamalak, Köçüç, Köçüç, Hizli, Akçal, Kafali, Canbal, & Isoğlu 2016:427). A study in Namibia found that 20.4% of women had experienced adolescent pregnancy, and some had experienced paternity denial (Indongo 2020:4).

Paternity denial is a distressing phenomenon for adolescent mothers (Hill, Maman, Groves & Moodley 2015:8). Some adolescent mothers faced stigma and shame when they gave birth out of wedlock or when their children were not named by their fathers (Okine, Dako-Gyeke, Baiden & Saa-Touh Mort 2020:12). Depression among young mothers can be caused by relationship problems, paternity denial, social stigma and isolation by peers at school (Phiri, Nyamaruze & Akintola 2021:2; Musyimi, Mutiso, Nyamai, Ebuenyi & Ndeti 2020:1).

Most African women and their families expect the father of the child and his family to provide symbolic gifts of acknowledgement of paternity (Hill et al 2015:8). This is often done in the form of money and livestock. It could also be in the form of emotional support, and failure to

do that would result in an extra burden on the family. In the case of paternity denial, adolescents are disappointed, ashamed of being a financial burden on their families and having a child without a father (Hill et al 2015:8). It also has negative socio-economic effects due to young girls being unable to complete their education and become financially independent (Matei & Ionescu 2020:48).

3.2.4.6 Issues of adolescent pregnant women

Factors influencing adolescents fall into three categories: sociocultural, individual, and health service-related factors (Yakubu & Salisu 2018:1). Sociocultural factors include peer influence, coercive sexual relations, unwanted sexual advances from adult males, poverty, religion, childhood marriage, lack of parental guidance and counselling. Individual factors include excessive use of alcohol, substance abuse, educational status, low self-esteem, inability to resist sexual temptation, curiosity, and cell phone usage. Health service-related factors include the cost of contraceptives, inadequate and unskilled health workers, long waiting times and lack of privacy at clinics, lack of comprehensive sexual education, misconceptions about contraceptives, and non-friendly adolescent reproductive services (Yakubu & Salisu 2018:1).

A study in South Africa on stress and coping among unmarried pregnant university students found that pregnancy was an experience that triggered depression among the participants. Depression emanated from fear, parents' reactions, and academic pressure (Phiri, Nyamaruze & Akintola 2021:2). In Ohangwena Region, Namibia, Shatilwe, Hlongwana and Mashamba-Thompson (2021:2) identified that adolescents had fears concerning the family dynamics, such as revealing the pregnancy due to harsh treatment from family members after the disclosure.

4.2.4.7 Unplanned or unwanted pregnancy

Having an unwanted or unplanned pregnancy is a major contributor to perinatal depression (Biaggi, Conroy, Pawlby & Pariante 2016:66; Ongeru, Wang, Otieno, Mbui, Juma, Vander Stoep & Mathai, 2018:5; Mersha, Abebe, Sori & Abegaz 2018:4). The participants wished the government would provide safe abortion to pregnant women who find themselves with unwanted pregnancies. Namibia still operates under the legal framework inherited from the apartheid era, the Abortion and Sterilisation Act of 1975 (Stiftung 2014:143). The law limits legal and safe abortions to seven criteria: (1) when the woman's life is in danger; (2) when the pregnancy might endanger the woman's physical health; (3) when the pregnancy could harm the mother's mental health; (4) in the case of severe congenital abnormality; (5) the pregnancy is the result of rape or non-consensual sexual intercourse; (6) the pregnancy is the result of

incest, and (7) the pregnancy is the result of sexual intercourse with a woman who has a severe mental disorder (Stiftung 2014:143). Although point (3) stated that abortion should be provided when the pregnancy pose harm to the mother's mental health, the government is not providing safe abortion to women with an unplanned pregnancy. However, the law does not prevent women from committing illegal abortions.

In low- and middle-income countries, the rates of unintended or unplanned pregnancies have lessened with higher access to and use of contraceptives, leading to a decrease in global abortion rates (Henkel & Shaw 2021:1). However, where access to contraception fails, women may turn to abortion as a method of controlling their fertility. Hence, the number of abortions might reflect the level of unmet need for contraception and contraceptive effectiveness in a particular country or geographic area (Henkel & Shaw 2021:1).

The WHO (2019:1) defines health as a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity. Meaning making health for all a reality, and moving towards the progressive realisation of human rights, requires that all individuals have access to quality health care, including comprehensive abortion care services – which includes information, management of abortion, and post-abortion care. Lack of access to safe, timely, affordable, and respectful abortion care poses a risk to not only the physical, but also the mental and social, well-being of women and girls (WHO, 2019). Ensuring that women and girls have access to abortion care that is evidence-based – which includes being safe, respectful, and non-discriminatory – is fundamental to meeting the Sustainable Development Goals (SDGs) relating to good health and well-being (SDG 3) and gender equality (SDG 5) (WHO 2022:1).

4.2.4.8 The effects of being HIV-positive during pregnancy

The participants stated that they could have handled their depression better if it did not co-occur with HIV-positive results. In Namibia, all pregnant women are tested for HIV during their first antenatal visit. HIV-positive women are started on treatment upon diagnosis. The aim of anti-retroviral therapy (ART) for HIV-positive pregnant women is threefold: to restore and preserve the mother's immune function and general health; to prevent transmission of HIV during pregnancy, labour, delivery and during breastfeeding, and a reduction in viral loads to reduce the risk of HIV transmission or reinfection (MoHS 2016:53).

A study in Malawi found that receiving unexpected HIV-positive results during antenatal care was a key contributor to developing perinatal depression. The participants' unexpected

diagnosis overlapped with their pregnancy and led to marital relationship conflicts that contributed to perinatal depression (LeMasters et al 2020:7). A study in Tanzania revealed that women diagnosed with HIV during the antenatal period were depressed and expressed concern that counselling was mostly focused on the interest of the unborn babies, but not really on the mothers (Kisigo, Ngocho, Knettel, Oshosen, Mmbaga & Watt 2020:7). The study findings concur with Dlamini, Ntuli and Madiba's (2021:425) findings on HIV-positive pregnant women in Eswatini that the participants were abandoned by their partners immediately following the disclosure of HIV-positive results. Some were chased away from the family homes where they lived with families and blamed for having brought viruses to the family (Dlamini et al 2021:425).

4.2.5 Theme 4: Factors contributing to or exacerbating perinatal depression

According to Kathree et al (2014:8) exacerbating factors of perinatal depression included unhealthy thinking or dwelling on the thoughts in the form of negative intrusive thoughts as well as social isolation which are typical symptoms of depression that maintain the depressive cycle. The authors added that the perinatal period is mainly a vulnerable time for some women as it involve changes to her body image, concepts of motherhood, her identity as a woman, changed intimate relationship variables and responsibility for a helpless infant. Combined with socio-economic difficulties, partner relationship problems contribute to many women's experiences of perinatal depression. Healthcare providers could increase women's trust by providing information about perinatal depression, which includes describing the symptoms, informing them what to expect during pregnancy and labour, normalizing and informing women that depression is treatable (Lara-Cinisomo, Clark & Wood 2018:202). The factors contributing to or exacerbating perinatal depression is described according to five sub-themes below.

4.2.5.1 Emotional instability

The 'transition' to motherhood is regarded as a time that increases the susceptibility of women to develop mood-associated disorders, including perinatal depression (Li, Bowen, Bowen, Feng, Muhajarine & Balbuena 2020:22). Bjelica, Cetkovic, Trninic-Pjevic and Mladenovic-Segedi (2018:103) point out that each pregnancy is accompanied by psychological, emotional and cognitive changes. Pop, Truijens, Spek, Wijnen, Van Son and Bergink (2015:75) found that perinatal women frequently experience overjoyed, irritable, and depressed moods in early pregnancy and also around the early postnatal period. This change in mood is triggered by the increasing hormonal fluctuations occurring during the perinatal period (Li et al 2020:22). However, when emotional instability is associated with perinatal depression, it may have a potential negative impact on the mental and physical health of women and their children.

4.2.5.2 Fear of losing the current pregnancy

The participants who had experienced perinatal loss and other complications lived in fear. Some of them stated that they were blamed for the miscarriages therefore they also starting blaming themselves for the inability to carry a pregnancy to the end. Perinatal loss is referred to as a miscarriage before 22 gestational weeks, early and late neonatal death, and stillbirths. Around 25% of pregnancies end in one of these types of losses (Hutti, Armstrong, Myers & Hall 2015:46). Perinatal loss is a distressing episode for mothers, with long-term adverse physical and psychosocial consequences and is also associated with social stigma and a culture of silence (Ramirez, Bogetz, Kufeld & Yee 2019:1).

In this study, the researcher regarded life events such as a fear of losing a current pregnancy due to past losses as predisposing risk factors for perinatal depression. In a study on mothers' response to psychological birth trauma in Iran, Taghizadeh, Irajpour and Arbabi (2013:3) found that women with maternal psychological trauma lived an isolated life and eventually manifested psychological disorders such as perinatal depression. Some psychological problems during pregnancy have been linked with preterm labour, poor infant outcomes and more cognitive, behavioural and interpersonal problems in young children. Psychological problems have an adverse impact on the woman, child, and relationships during the postnatal period (Ayers 2014:146).

Furtado-Eraso, Escalada-Hernández and Marín-Fernánde (2021:499) found that women who have a perinatal loss commonly experience physiological and social effects as well as emotional distress. During pregnancy, irrespective of gestational weeks, they are at risk for grief, depressive symptoms, anxiety, and post-traumatic stress in the subsequent pregnancy (Hutti et al 2015:45). Perinatal depression was associated with past traumatic experiences, such as the loss of a child and/or difficult birth experiences, and women feared a recurrence of such events, and developed severe depression (Madeghe et al 2021:9; Joshi, Shrestha & Shrestha 2019:8).

Fear of giving birth refers to the negative perception of pregnant women about giving birth, which is interrelated with psychological and social factors and lack of formal communication from healthcare providers (Hatami, Badrani, Kamboo, Jahangirimehr & Hemmatipour 2019:24). Fear of birth is divided into primary fear of birth, which is more common in primigravidas, and secondary fear of birth, which is more common in multipara who might have experienced traumatic delivery (Jaju, Al Kharusi & Gowri 2015:158).

In Lilongwe, Malawi, Munkhondya, Munkhondya, Msiska, Kabuluzi, Yao, and Wang (2020:309) found that primigravidas suffered in silence due to uncertainty of pregnancy outcomes and fear of the childbirth experience. Primigravidas mostly received childbirth information from traditional sources rather than healthcare providers (Munkhondya et al 2020:309). The presence of perinatal depression was related to a high prevalence of fear of childbirth (Jaju, Al Kharusi & Gowri 2015:153). Therefore, educational interventions are required to alleviate such worry and anxiety.

4.2.5.3 Fear of being judged or stigmatised by society

The participants feared that they would be judged by others according to contemporary stereotypes of adolescent pregnancy and giving birth within short intervals and stated that their encounters thus contributed to perinatal depression. In a study in Dar es Salaam, Tanzania, Mgata and Maluka (2019:4) found that adolescents and unmarried younger women tended to hide their pregnancies for fear of being excluded from school, stigmatization and gossiping. In Tunisia and many African communities, cultural and religious rules command that pregnancy should only occur after marriage (Amroussia, Hernandez, Vives-Cases & Goicolea 2017:8). In South Africa, adolescents frequently defer disclosing their pregnancy to hide their deviation from cultural and religious expectations (Erasmus, Knight & Dutton 2020:472). In a study in Ohangwena Region, Namibia, adolescents blamed themselves for becoming pregnant at a young age and were stigmatised by family members and the community at large (Shatilwe, Hlongwana & Mashamba-Thompson 2021:7).

A study among Xhosa families in South Africa found that pregnant adolescents felt that their mothers were being unfairly tough towards them at times and humiliated them in front of other family members (James, van Rooyen & Strümpher 2012:193). In Rwanda, Ruzibiza (2021:768) found that adolescent mothers regarded their pregnancies as a disgrace that had brought shame to the whole family and were called offensive names and accused of getting what they deserved. In Rio de Janeiro, Brazil, stigma, fear of being discriminated against, fear of the foetus being removed, negative reactions to patient referral, and denial of the problem were barriers that prevented pregnant adolescents from seeking treatment for perinatal depression (Baldisserotto, Theme, Gomez & dos Reis 2020:103).

4.2.5.4 Chronic illness

Four of the participants referred to chronic physical illness as challenges that contributed to their perinatal depression. A study by Smith, Lawrence, Sadler and Easter (2019:4) reported

that the most commonly cited causes of perinatal depression were biological, such as hormonal, genetic or hereditary and biochemical. A study on experiences and perceptions of perinatal depression among new immigrant Chinese parents in the USA identified that at the onset of pregnancy, the physical complaints made it difficult and even depressing for some women, while serious pregnancy symptoms, such as hyperemesis, contributed to depression (Li, Xue, Gong, Quan, Li, Xiao, Xu et al 2021:12).

The participants mostly healthcare providers indicated that biological factors influenced perinatal depression. Women are exposed to various biological risk factors during the perinatal period that might put them at risk of developing perinatal depression. The biological factors include, physical, nutritional, neurobiological issues, age, genetic and hormone susceptibility, neurotransmitter dysregulation, defects in brain structure and function. Chronic diseases, medical illness and pregnancy complications which have adverse effects on the mother and baby (Barry, Murray, Fearon, Moutsiana, Cooper, Goodyer, Herbert & Halligan 2015:257). Consequently, fast changes in estradiol and progesterone plasma concentrations during the perinatal period make women vulnerable to perinatal depression and other mental disorders (Trifu, Vladuti & Popescu 2019:410). Chojenta, Lucke, Forfer and Loxton (2016:1) found that maternal biological health factors were risks for perinatal depression. In the USA, Craft (2020:40) found that health care providers perceived that perinatal depression started with a change in hormones after childbirth.

Healthcare providers had misconceptions about the relationship between depression and chronic diseases. They believed that some chronic illness such as high blood pressure, diabetic ,cardiac conditions being treated at the clinic on daily basis might be related to perinatal. The findings is supported by study conducted in United States of America (USA) the adverse perinatal outcomes, including hypertensive disorders of pregnancy and preterm birth was common in women with a diagnosis of gestational diabetes mellitus those with a concurrent diagnosis of antenatal depression (Packer, Pilliod, Chatroux, Caughey, & Valent. 2021:6). The author further demonstrates that antenatal depression may have an additive risk for preeclampsia among women with gestational diabetes mellitus. According to Woody, Ferrari, Siskind, Whiteford and Harris (2017:86), it is very important to identify women with perinatal depression because 11.9% of women with perinatal depression are from low- and middle-income countries. Untreated perinatal depression was associated with significantly increased maternal complications, such as pre-eclampsia and eclampsia, which could later turn into chronic hypertension (Biratu & Haile 2015:7; Jarde et al 2016:826).

4.2.5.5 Dwelling on thoughts

Dwelling on thoughts or repetitive thinking is a way of responding to sad moods and related symptoms by thinking about problems, causes, meanings and consequences repeatedly (Newby, Werner-Seidler, Black, Hirsch & Moulds 2021:1). Worrying is another example of dwelling on thoughts and is categorized by constant thinking about past events and future threats. Ruminations or dwelling on thoughts are major contributors to severe depression (DeJong, Fox & Stein 2016:42). According to Kinser and Lyon (2014:668), ruminations may increase stress and depression, especially negative thoughts about the past, present, and/or future. Dwelling on thoughts is related to a lack of social support and increases suicidal ideations, all of which continue the cycle of stress and prolonged depression (Kinser & Lyon 2014:668).

Women preoccupied by negative thoughts have higher rates of mental illness than those less inclined to dwell on concerns. Rumination seems to increase during pregnancy, which is related with insomnia and depression (Kalmbach et al 2020:69). Pregnant women who dwell on thoughts are at increased risk of insomnia, perinatal depression and suicidal ideation in mid and late pregnancy (Kalmbach et al 2020:69). Modifying cognitive risk factors might be a crucial focus of intervention for depression during the perinatal per

4.2.6 Theme 5: Interpersonal factors that have a negative or positive influence on perinatal depression

Interpersonal factors were among other risk factors that predisposed women to experiencing perinatal depression. A conceptual framework of individual stress vulnerability, depression, and health outcomes guiding this study identified that negative interpersonal situations, living in stressful environment, intimate partner violence in women (Kinser & Lyon 2014), having experienced extremely stressful life circumstance, and loss of a child or loved one, are additional vulnerability for stress and depression (Lund et al., 2019:2). These factors are related to the psychological implications for women with perinatal depression. However, positive interpersonal relationships have been linked to favourable pregnancy outcomes, for example, pregnant women with good social support had less risk of developing depression compared to poor social support (Azale, Fekadu & Hanlon, 2018:4). Interpersonal factors that have a negative or positive influence on perinatal depression is described according to two sub-themes below.

4.2.6.1 Living in a toxic or abusive relationship

The participants stated that their depression was initiated by living in an abusive environment; how abusive partners were difficult to live with, some refusing to support their children and every time they asked for support it ended in conflict. Some were called names and were exposed to physical and verbal abuse. It is evident that violence mainly occurred against a background of partners' alcohol abuse. A study in Zambia by Hampanda, Atenga, Nkwemu, Shankalala, Chi, Darbes, Turan et al (2021:5) found that some HIV-positive pregnant women who lived in abusive relationships believed that participating in a counselling intervention could endanger their safety. One woman in the mentioned study explained that if she happened to participate in a couples-based health education programme, her abusive and controlling husband would kill her instantly (Hampanda et al 2021:5).

4.2.5.2 Positive experiences

The participants lived with their families, and most felt protected and supported in the home concerning their pregnancies. Their sisters were a source of support as some had gone through the same situation. Positive support and encouragement helped one participant start antenatal care at eight months. The positive support provided by their partners, family members and friends helped improve the participants' mental well-being. Fathers contribute to child development through their influence on the couple's relationship (Cardenas et al 2021:55). In Umlazi, South Africa, Hill, Maman, Grove and Moodley (2015:4) found that the participants reported positive relationships with their families after disclosure that they have depression.

4.2.7 Theme 6: Coping mechanisms used by women with perinatal depression

Coping mechanism is the way used by people to deal with and overcome life challenges or difficulties. Acquiring effective coping strategies reinforces a person's sense of self-control and self-direction (Bazrafshan, Jahangir, Mansouri & Kashfi 2014:2). The authors indicated two types of coping skills when a person is faced with stress. Action-based coping skill which is directed to solve a problem, for example, a pregnant woman who is depressed because of unemployment as a cause of depression, probably finding a job for a person with unemployment may solve the problem (Bazrafshan et al., 2014:2). Another one is emotional based coping skills, lessening the stress symptoms without addressing the main sources of stress, for example teaching a person to manage her emotional response to a problem. The coping mechanisms used by women with perinatal depression is described according to four sub-themes below.

4.2.7.1 Spiritual coping

In Namibia, 97% of the population is Christian (US International Religious Freedom Report 2018:1). This might be the reason participants used spiritual as a coping strategy. According to Koenig (2012:5), spirituality is considered a coping mechanism for most people who deal with emotional disorders, mental illness, stress and depression in general. Spiritual coping strategies offer resources for coping with stress that help increase positive emotions and lessen the likelihood that stress will end in emotional disorders such as depression, anxiety disorder, suicide, and substance abuse. Spirituality also includes strongly held beliefs that provide meaning to tough life circumstances and bring a sense of hope to a person (Koenig 2012:7). Women across cultures and religions consider religious practices, such as going to church or the mosque, reading the Bible or the holy books, prayer and pastoral counselling, helpful ways to manage depression (Arifin, Cheyne & Maxwell 2018:14; Ng'oma et al 2019:16).

4.2.7.2 Distraction

In the study distraction coping strategy include exercise and listening to music to cope with depression. In Khayelitsha, South Africa, Nyatsanza, Schneider, Davies, and Lund (2016:7) found that 11,92% of the participants with perinatal depression used exercise and listening to music to cope with depression. A review by Gujral et al. (2019:9) indicated that an exercise intervention as compiled with pharmacotherapy intervention was feasible and acceptable among depressed younger and older mothers. This strategy has appeared to have neural benefits of exercise intersection with numerous regional structural brain abnormalities in depression for example prefrontal cortex, anterior cingulate and hippocampus (Gujral, Aizenstein, Reynolds, Butters, Grove, Karp, & Erickson, (2019:2). The time spent in cognitively engaging sedentary activities for example reading, using the computer were related with a decreased number of depression symptoms in older women (Andrade-Gómez et al 2018:887). The authors suggested that certain activities such as walking, playing sports, or doing house work may be more effective to lower the risk of depressive symptoms.

4.2.7.3 Self-reliance and resilience

Many women use self-reliance as a coping strategy to buffer the negative effects of reduced or lack of social support (McNamara, Cutler, Lundsberg, Kennedy & Garipey 2018:6). Self-reliance and resilience could be used to reduce depressive symptoms during the perinatal period (Raymond, Pratt, Godecker, Harrison, Kim, Kuendig, & O'Brien 2014:4). However, in cases of severe depression, self-reliance will not be enough and should be complemented with other formal strategies (Raymond et al 2014:4).

4.2.7.4 Social and emotional support

Non-professional people can be reliable individuals to provide the required advice and support. Social support is central in the transition to motherhood and impacts emotional coping strategies. It builds emotional strength, lessens stressful life events' effects and helps prevent perinatal depression (Milgrom, Hirshler & Gemmill 2019:2)

4.2.8 Theme 7: support needs of women with perinatal depression

The findings showed that social needs and healthcare support were important needs for women with perinatal depression. Social needs or support can be offered in the form of emotional support, material assistance, empathy, guidance, positive feedback, social participation, peer support and intimate interaction (Ranjekesh, Soltanshahi, Azh & Griffiths 2020:55). This is consistent to similar unmet needs identified in a Malawi study by (Ng'oma et al 2019:48). Support needs include health care support and these are psychological interventions recommended as the first-line approach for women with perinatal depression. The effect could last up to 6-12 months, and these interventions have an impact on social support, parental stress, anxiety, functional impairment and marital stress (Cuijpers, Franco, Ciharova, Miguel, Segre, Quero & Karyotaki 2021:1). The two sub-themes that emerged under the theme social needs and health care support are discussed below.

4.2.8.1 Social needs

Social support safeguards positive health outcomes for mother and baby during pregnancy, and there is a need for interventions to improve the social support status among women during the perinatal period (Mirabzadeh, Dolatian, Forouzan, Sajjadi, Majd & Mahmoodi 2013:507). Social support could be offered through emotional support, material assistance, empathy, guidance, positive feedback, social participation, peer support and intimate interaction. These are appropriate for women who experience perinatal depression and are confronted with stressful incidents (Ranjekesh et al 2020:55). Factors such as anxiety, depression, stress and fear of childbirth increase the complications and outcomes of pregnancy and childbirth and are related to women's level of social support (Jaghargh & Alizadeh 2017:39).

Women need social support for intimate partner violence and peer support to manage mild perinatal depression (Reyes, Akanyirige, Wishart, Dahdouh, Young, Estrada, Ward et al 2021:115). However, while some social needs interventions could be valuable and beneficial, they do not denote long-term solutions to the underlying social conditions that are embedded in many social and health disparities during the perinatal period. For example socio-economic

issues, such as housing, food insecurity and financial challenges are difficult to solve without political will or intervention (Reyes et al 2021:116).

4.2.8.2 Health care support

The participants stated a need for health care support to be integrated into their management interventions. Some of the participants were only aware of counselling and would prefer one-on-one counselling due to fear of stigma. This is consistent with study of unmet needs of women with perinatal depression by Ng'oma et al (2019:14) in Malawi where counselling was identified as the only need to assist women prevent and cope with perinatal depression. The authors adds that the participants preferred psychosocial interventions as suitable management for perinatal depression rather than pharmacological interventions for fear of harming their neonates. The belief that medication in-take during the perinatal period was harmful prevented women from seeking care from the health facility. Counselling assists women to prevent and cope with perinatal depression (Ng'oma et al 2019:14).

4.2.9 Theme 8: Health care needs of women with perinatal depression

The Council on Patient Safety in Women's Health Care recommends that every woman, in every perinatal care setting, should be provided with appropriately timed identification and management of depression persons (Kendig, Keats, Hoffman, Kay, Miller, Moore Simas et al 2017:273). The authors further stated that education and awareness should be given to their family members and other support. In the study participants expressed a desire for a series of perinatal mental health services that could be more comprehensive compared to the range of services that were currently available and are not focusing on perinatal mental health. The participants' needs also to be centred around having someone to advise them on how to manage perinatal depression. Williams, Turner, Burns, Evans and Bennert (2016:43) found that women agreed to welcome midwives taking an interest in their mental well-being. Five sub-themes that emerged under this main theme are indicators that there are series of unmet need for this population. The sub-themes that emerged under the theme 'creating awareness about perinatal depression, screening for perinatal depression, pharmacological intervention, need for privacy and confidentiality, and follow up visits are discussed below.

4.2.9.1 Create awareness about depression

According to Jorm (2012:1), mental health literacy refers to knowledge and beliefs about mental disorders which enable people to recognize depression, management or prevention and make informed decisions about where to seek help or treatment. Depression literacy may be conceptualized as a particular type of mental health literacy and described as the

knowledge and beliefs about mental disorders (Fonseca et al., 2017:198). The authors advised healthcare providers not to overlook the significant role of women's depression literacy in the help-seeking process.

Lack of knowledge to recognize symptoms of depression and where to get access to treatment options are major barriers to seeking professional assistance during the perinatal period (Fonseca, Silva & Canavarro 2017:197). A lot has been done to enhance health literacy and conveying knowledge to the public that allows people to identify, prevent, and treat common physical ailments (Guy et al., 2014:1). However, less effort has been placed on increasing public knowledge how to prevent or recognize mental disorders and cope with the symptoms such as perinatal depression (Jorm, 2012:1). Education to promote awareness of the significance of mental health not only for healthcare providers but also for the women, their families and broader community is of paramount importance (McCauley et al 2019:4). Therefore more effort is needed to enhance health literacy during the perinatal period.

For women with perinatal depression healthcare providers revealed the need to create awareness and sensitize communities about perinatal depression. According to Guy, Sterling, Walker and Harrison (2014:256), women with inadequate depression literacy and awareness have difficulty recognizing and dealing proactively with their symptoms. Women's lack of emotional regulation strategies may influence their awareness and recognition of an ongoing psychological problem and consequently compromise further help-seeking behaviour (Fonseca et al 2017:199).

According to Bedaso, Adams, Peng and Sibbritt (2021:2), depression is a common prevailing mental health illness during the perinatal period and detection of perinatal depression may be improved by using and increasing awareness among communities. A systematic review conducted in low- and middle-income countries disclosed that the greatest common knowledge barrier to the utilization of mental health services in those countries is a lack of adequate knowledge about maternal mental health problems among patients and their families (Sarikhani, Bastani, Rafiee, Kavosi & Ravangard 2019:847). Identifying mental problems by patients and their families is the first step in utilising the services (Sarikhani et al 2019:847). Detection of perinatal depression may be improved by increasing awareness among communities. Women who did not seek professional assistance for their perinatal depressive symptoms indicated a lack of knowledge to identify symptoms of perinatal depression (Fonseca, Silva & Canavarro 2017:204).

In their review on maternal posttraumatic stress disorder during the perinatal period and child outcomes, Cook, Ayers and Horsch (2018:27) found that women expressed their concern about the lack of identification and intervention on perinatal depression among healthcare providers, as women kept coming to the hospital without proper diagnosis. The women suggested that early identification and intervention could be a desired service improvement (Cook et al 2018:27).

The current study finding is consistent with study by McCauley et al (2019:4) revealed that education to promote awareness on the significance of mental health not only for healthcare providers, but also for women, their families and the wider. According to Guy et al (2014:1) women with inadequate depression literacy and awareness' have difficulties recognizing and dealing proactively with their symptoms. Some engage in maladaptive emotion regulation strategies for example alcohol consumption or substances that could be harmful to the fetus. Baldisserotto et al (2020:102) suggested that creating awareness is the main solution to effective help-seeking behaviour, as well as to obey the recommended treatments once a diagnosis is received.

4.2.9.2 Screening for perinatal depression

The participants indicated that timely detection and management were key areas that needed to be addressed to improve the health outcomes for women with perinatal depression. A study on depression by Iturralde, Hsiao, Nkemere, Kubo, Sterling, Flanagan and Avalos (2021:9) revealed that participants were concerned with the lack of screening for perinatal depression and recommended universal screening coupled with monitoring and follow-up. Screening tools should accommodate cultural factors, emphasizing that perinatal depression occurs across race, ethnicity and socioeconomic circumstances (Iturralde et al 2021:9).

There is no routine screening for and treatment of maternal mental disorders available in primary care settings in Namibia. In the absence of a screening tool, most women with perinatal depression will never be identified and receive help. O'Connor, Rossom, Henninger, Groom and Burda (2016:399) recommend routine screening to identify signs of depression in adults, including women during the perinatal period at risk of mental health problems, for early interventions. Screening should be implemented with appropriate systems to guarantee correct diagnosis, effective treatment, and appropriate follow-up (Siu, Bibbins-Domingo, Grossman, Baumann, Davidson, Ebell, García et al 2016:386). Childbearing women are at risk of undetected, undiagnosed and untreated mental health problems (Bayrampour, Hapsari & Pavlovic 2018:55; Fonseca, Goyareb & Canavarro 2015:1183).

4.2.9.3 Pharmacological interventions

Of 21 women participated in this study only four women expressed and mentioned the need for pharmacological intervention. Healthcare providers suggested that medication was needed for women who did not respond to counselling and those with severe depression. They believed that the use of medication could be limited to avoid detrimental effects for both mother and baby.

The estimated prevalence of depressive disorders during the perinatal period was approximately 9% to up to 20% (Dubovicky, Belovicova, Csatlosova & Bogi 2017:30). Approximately 2% to 3% of women take antidepressants during the perinatal period, and the number of mothers treated increases after birth to between 5% and 7% (Dubovicky et al 2017:30). The NICE guidelines suggest the use of medication as an important therapeutic option for women of reproductive age with severe mental illness (National Institute for Health and Care Excellence [NICE] 2018:654). Treatment with antipsychotic medication is recommended during the perinatal period for women with severe depression and those with pre-existing severe mental illness to lessen symptoms and to avoid relapse (NICE 2018:654).

A review by Lusskin, Khan, Ernst, Habib, Fersh, & Albertini, (2018:557) had revealed safety of pharmacological interventions such as selective serotonin reuptake inhibitors, serotonin-norepinephrine reuptake inhibitors, tricyclic antidepressants. The authors add when used correctly, bupropion is believed to be safe for administering to women during perinatal period. This implies that some medications used to treat perinatal depression are reasonably safe in pregnancy and breastfeeding. Lusskin, Khan, Ernst, Habib, Fersh and Albertini (2018:557) emphasised that healthcare providers should review the evidence on medication use during pregnancy and lactation to prescribe safe medication.

The findings of this study is consistent of the study conducted in Malawi, pregnant or breastfeeding majority of women did not use medication during pregnancy and lactation for reasons such as potential side-effects on babies (Ng'oma et al 2019:14). Moreover, women did not consider their problems as illnesses that required medicine but related their depression to stresses or worries caused by psychosocial challenges and were afraid of harming their babies (Ng'oma et al 2019:14). In their review, Cook, Ayers and Horsch (2018:27) found that women were also worried about possible long-term effects of taking antidepressants and suggested medication should only be prescribed for women with severe depression.

4.2.9.4 Need for privacy and confidentiality

The participants stated clearly when and where they felt safe and willing to reveal matters regarding their emotional health. No matter what interventions are developed, women will not speak out if privacy and confidentiality are not provided in that environment. These findings concur with Forder, Rich, Harris, Chojenta, Reilly, Austin, & Loxton (2020:e148), who revealed that participants were less comfortable talking about their emotional matters if other women were present, were threatened and did not believe the conversation would result in any positive outcomes. Women with perinatal depression find it difficult to reveal that they are depressed due to a lack of confidentiality, privacy, lack of confidence and negative attitudes displayed by healthcare providers (Forder et al 2020:e148).

Confidentiality denotes the professional responsibility of healthcare providers to keep women's information confidential (Gilbert et al 2017:12). Healthcare providers have an ethical responsibility and accountability to ensure that the findings of screenings are not misunderstood or misused in a manner that is detrimental to their patient's well-being by the patients themselves, their families, community, other healthcare providers such as community counsellors and policymakers (Gilbert et al 2017:12). Consent could be readily integrated with consent processes for existing routine perinatal care procedures. If a woman does not consent to screening, this should be explored and documented, and screening could be offered at following contacts when the woman agreed. The authors added it is unethical to screen individuals without providing them with relevant information because it deprives them of rights to control their own lives, make informed choices and access to treatment.

It should also be made clear to all women that confidentiality may not be kept if there is a perceived risk of harm to the woman or her baby as there is a duty of care for this to be communicated to healthcare providers (Austin & Highet 2017:24). An example is when a woman has suicide ideation. However, in this situation, only information relevant to the risk must be shared.

4.2.9.5 Follow-up visits

The participants revealed a need for home visits where healthcare providers checked how they were coping after being diagnosed with perinatal depressive symptoms. Dennis (2014:98) found that home visits or follow-ups delivered by both professionals and lay individuals seemed to decrease the risk of developing depressive symptoms. Chrzan-Detkoś and Walczak-Kozłowska (2021:209) state that midwives' postpartum home visits create an opportunity to deliver early postpartum mental health screening, identification, and management. Continuity of care and follow-up visits after being diagnosed with perinatal

depression are vital in building a good relationship of trust between practitioner and patient (Forder et al 2020:e148). It promotes the acceptance of perinatal mental health services, with women more likely to be involved in treatment if they are being followed up.

4.3 Explore and describe healthcare providers' experiences of working with women with perinatal depression in Namibia.

4.3.2 Theme 1: Understanding of perinatal depression

Perinatal depression is not defined separately in the *Diagnostic and Statistical Manual of Mental Disorders DSM-5* (American Psychiatric Association 2013). Psychiatrists around the world have used the terms perinatal depression and this refer to depressive episodes occurring during pregnancy and/or following delivery (Doyle, Carballedo, & O'Keane, 2015:5). Depression is a mood disorder characterised by an individual presenting with five or more of nine symptoms during the same two-week period and experiencing change from previous functioning as described chapter 1 section 1.10 of this study. It is significant to be vigilant for symptoms of perinatal depression ,about half of episodes of antenatal depression will proceed to postnatal depression (Doyle, Carballedo, & O'Keane, 2015:8). The authors added it is vital to be aware that untreated perinatal depression can lead to poor outcomes not only for the mother but also for the child.

In this study healthcare providers described perinatal depression as a mental health problem occurring during pregnancy and/or after childbirth. Some healthcare providers further described it as a puerperal psychosis caused by biological and social problems. It was considered a public health concern by all healthcare providers although they expressed a concern that it is rarely identified and managed in Namibia. The findings is consistent with a study in Malawi where healthcare workers stated perinatal depression was a public health concern, although poorly identified and managed (Ng'oma et al 2019:8). The understanding of perinatal depression is described according to one sub-theme below.

4.3.2.1 Difference between perinatal depression and puerperal psychosis

Healthcare providers also understood perinatal depression in terms of signs and symptoms. Most of the participants were able to describe the signs and symptoms of perinatal depression that fall into either physical or psychosocial categories. However, some healthcare providers were under the impression that perinatal depression was the same as puerperal psychosis. These findings highlighted the need for improving perinatal mental health literacy among healthcare providers, so that they know the difference between perinatal depression and puerperal psychosis. According to Dominiak, Antosik-Wojcinska, Baron, Mierzejewski and

Swiecicki (2021:154), puerperal psychosis is a very rare condition and its incidence is estimated to be around 1.0%. Symptoms include insomnia, agitation, anxiety, psychotic symptoms such as hallucinations and delusions related with the child, suicidal thoughts or obsessive thoughts of harming the baby and mania, and it is a psychiatric disorder (Dominiak et al 2021:159). Puerperal psychosis has an acute and sudden onset, usually detected within the first two weeks after delivery or within three months postpartum and must be viewed as a psychiatric and obstetrical emergency (Rai, Pathak & Sharma 2015:216). According to Wesseloo (2018:11) although some of puerperal psychosis features are similar to perinatal depression, delusion and hallucinations are the unique features of puerperal psychosis. Wesseloo (2018:20) found that recovery among mothers with puerperal psychosis initiated on medicine immediately after delivery offers the opportunity to decrease the risk of relapse.

4.3.3 Theme 2: Consequences of undetected and untreated perinatal depression

Perinatal depression is a devastating condition with undesirable outcomes for both mother and child. It is an important health concern in low- and middle-income countries (Fida, Waqas & Naveed 2019:51). The consequences of untreated perinatal depression include taking longer to respond to treatment, relapse, higher rate of depression disability, poor adherence to medical care, exacerbation of medical conditions, loss of interpersonal and financial resources, substance use, suicide, and infanticide (Kendig, Keats, Hoffman, Kay Miller, Moore Simas; Jarde, Morais, Kingston, Giallo, MacQueen, Giglia, Beyene et al 2016:826). Jahan, Went, Sultan, Sapkota, Khurshid, Qureshi, and Alfonso (2021:2) identified that untreated depression during the pregnancy was related with adverse birth outcomes; namely, low birth weight, small for gestational age, preterm birth, postpartum depression, and infant neurodevelopmental outcome. A cohort study conducted in low income settings on the effects of antenatal depression on adverse outcomes for the mother and baby revealed that antenatal depression was associated with a 25% higher incidence of prolonged labour of more than 24 hours, 11% severe antenatal depression and 27% postpartum complications, 50% severe newborn illness, and 7% less bed net non-use during pregnancy (Weobong et al 2014:8). It was also slightly associated with a 32% increase risk of preterm deliveries. The consequences of undetected and untreated perinatal is described according to six sub-themes below.

4.3.3.1 Suicide or harming others

Suicide is regarded as a main cause of death among women during the perinatal period (Al-Halabí, García-Haro, Rodríguez-Muñoz & Fonseca-Pedrero 2021:161). During the perinatal period, around 20% of maternal deaths in high-income countries and 5% in low- and middle-income countries are due to suicide (Enătescu, Craina, Gluhovschi et al 2021:242). The

evidence on suicide during the perinatal period is very rare in low middle income countries as maternal suicide deaths often go undetected (Khalifeh, Hunt, Appleby & Howard 2016:162).

In general population suicide rates in Namibia were around 22.1 per 100,000 population, and 1.7% were related to unplanned pregnancy (MoHSS 2018:39). The Namibia statistics agency does not have disaggregated data available to enable us to know the extent of this phenomenon. Study (Al-halabí et al 2021:162) identified that during perinatal women have higher suicidal ideation than their comparison group in the general population. Meaning maternal suicide is the most severe adverse consequences of perinatal depression. Risk factors of suicide during the perinatal period include young age, single-parent family, personal history of mental disorders or suicidal behaviours, poor socio-economic conditions, family conflict, domestic violence, loneliness, lack of social support, family rejection, paternity denial, unplanned and unwanted pregnancy (Al-Halabí et al 2021:163).

4.3.3.2 Infanticide and baby abandoning

The participants expressed concern that infanticide and abandoning of babies could be a result of undetected and untreated perinatal depression. A study in Namibia by Amukugo and Karera (2019:112) revealed that women who had abandoned their babies or committed infanticide suffered psychological and socioeconomic challenges. In 2012, baby dumping and infanticide were reported in Nigeria, where babies were being abandoned at riverbanks, refuse sites, pit toilets, open-market places, roadsides, mosques or church premises, and bush paths (Ojedokun & Atoi 2012:413).

4.3.3.3 Miscarriages, premature births or intra-uterine deaths

The participants stressed that undetected and untreated perinatal depression may cause complications during pregnancy, such as miscarriage, intra-uterine death and premature birth. Perinatal depression is considered a risk factor for premature birth and low birth weight, which contribute to newborn and child morbidity and mortality. Untreated perinatal depression is associated with a significantly increased risk of preterm birth, low birth weight, caesarean section, and maternal complications such as diabetes, anaemia, ectopic pregnancy, miscarriage, hyperemesis, preterm contractions and preeclampsia (Cook, Ayers & Horsch 2018:19; Jarde, Morais, Kingston, Giallo et al 2016:826).

In Addis Ababa, Ethiopia, poor mental health in childbearing women were linked with numerous complications, including prolonged labour, caesarean section, eclampsia, diabetes, and social problems such as perinatal suicide (Biratu & Haile 2015:8).

4.3.3.4 Lack of self-care and care of baby

The participants believed that mothers who suffer from perinatal depression are at greater risk of neglecting themselves and their babies. In a rural district in Uganda, Nakku, Okello, Kizza, Honikman Ssebunnya, Ndyanabangi, Hanlon et al (2016:4) found that mothers diagnosed with perinatal depression were unable to care for themselves and their babies. In Nigeria, Thompson and Ajayi (2016:1) found that mothers with untreated perinatal depression were more likely to engage in negative behaviour, such as using drugs and alcohol, following a poor diet, and non-adherence to antenatal care, which may contribute to poorer obstetric outcomes. After delivery, untreated perinatal depression is linked with physical impact in children, such as poor infant growth during the first year and malnutrition, as the mothers tend to stop breastfeeding and introduce solid foods too early. This affects children's physical, emotional, and neurological development (Dagher, Bruckheim, Colpe, Edwards & White 2021:154; Milgrom & Gemmill 2014:14). The negative outcomes for the infant may continue throughout childhood and adulthood, affecting their emotional, behavioural and social development and impact future generations (Garthus-Niegel, Ayers, Martini, Von Soest, & Eberhard-Gran 2017:12).

3.3.4.5 Family discord

The participants stated that there is a need to take care of mothers' mental well-being to avoid the extreme of family discord and its effect on children's development. In general, women are considered caretakers, and once diagnosed with perinatal depression, this might bring families into disharmony. Perinatal depression has been found to have a negative impact on the family and cause social disruption. This implies that the entire family system could be affected, and parental depression could produce cognitive, social, emotional and physical consequences for children (Hammen 2018:12).

Perinatal depression was directly associated with psychological aggression in parenting, and psychological aggression was directly related to advanced delinquency among teens and subsequent internalised problems (Hentges, Graham, Plamondon, Tough & Madigan 2021:401; Marcal, 2021:7). Healthcare providers could solve some of these problems by screening for perinatal depression and psychosocial factors, offering parenting support to vulnerable families and supporting healthy adolescent development (Marcal 2021:8).

3.3.4.6 Poor milk production

Mothers who cannot produce enough breast milk tend to blame themselves. Self-blame is one of the signs and symptoms of depression. Therefore the participants believed that the inability to produce enough milk might be linked to perinatal depression. Postpartum depression and breastfeeding are two multifaceted conditions that are controlled by the neuroendocrine system, notably cortisol and prolactin (Larsen & Grattan 2012:203). Moreover, prolactin is the main hormone for milk production and modulation of stress response during pregnancy and lactation. Postpartum women who experienced postnatal depression had reduced prolactin and were unlikely to breastfeed their babies due to poor milk production, which also affected the formation of attachment. Poor feeding is associated with postnatal depression (Szpunar & Parry 2018:157; Moore, Huang, Patton, Reinhart, Chawla, Clemson & Eldar-Lissai 2019:387; Islam, Broidy, Baird, Rahman & Zobair 2021:10).

4.3.4 Theme 3: Barriers preventing assessment of perinatal depression

There are numerous barriers preventing healthcare providers from screening, detecting, and managing perinatal depression. These include health administrators' low literacy about perinatal depression as individual level barriers; lack of community awareness, health-seeking behaviours and cultural norms about perinatal depression as socio-cultural level barriers (Smith, Lawrence, Sadler & Easter 2019:5). The authors added a lack of government capacity, readiness, and priority of screening and managing perinatal depression as organisational level barriers, and lack of mental health policy and strategies. In the current study, the participants were able to identify several barriers preventing them from screening, identifying and managing perinatal depression. The barriers preventing assessment of perinatal depression is described according to five sub-themes below.

4.3.4.1 Difficulty recognizing signs and symptoms of perinatal depression.

The participants were able to list the signs and symptoms of perinatal depression. In regard to clinical settings, however, most of the signs and symptoms of perinatal depression were often missed, undetected and untreated. Bayrampour, Hapsari and Pavlovic (2018:47) discovered that healthcare providers had inadequate knowledge about mental health issues of child-bearing women, including identifying signs, symptoms, and risk factors of perinatal depression. Arifin, Cheyne and Maxwell (2021:15) found that healthcare providers focused more on physical health, family planning, breastfeeding, and baby's growth thus leaving women's emotional health needs unattended. Adequate knowledge is required for enlightening health of women during perinatal period, healthcare systems, and health policy (Arifin et al 2021:15). Bayrampour, Hapsari and Pvalovic (2018:56) emphasize that

comprehensive perinatal mental health training should include all components and educate healthcare providers, specifically midwives, on how to correctly manage perinatal depression.

4.3.6.2 Lack of guidelines and screening tools

The participants were asked if they are screening for perinatal depression some admitted that they are not screening due to a lack of guidelines and screening tools. Some indicated they were “doing something”, for instance, screening for social life issues, asking women about family background, living environment, substance abuse and looking for signs of depression, such as sadness and isolation.

Screening for social life risk factors should not be regarded as a replacement for screening for perinatal depression but rather complementary to it. In England, Darwin, McGowan and Edozien (2015:e22) found that although assessment was done, there was an absence of consistent documentation, and healthcare providers focused on recording previous mental health history and referral rather than assessing and monitoring current symptoms of perinatal depression. Healthcare providers should focus on effective assessment as an opportunity for early detection and intervention, rather than merely a means of determining proper referral pathways (Darwin et al.,2015:e22). In Texas, USA, Craft (2020:58) found that healthcare providers indicated that they only made referrals when they detected that a woman might be experiencing perinatal depression.

According to Lasater, Beebe, Gresh, Blomberg and Warren (2017:657), efforts are made to reduce global maternal morbidity and mortality caused by maternal complications such as eclampsia, gestational diabetes, anaemia and postpartum haemorrhage, but perinatal depression often goes undiagnosed and untreated. This is predominantly evident in low- and middle-income countries where resources limit the ability of the health system to address this pressing need (Lasater et al 2017:657). Mental health policy implementation in Namibia indicates that mental health illnesses still receive less priority because more resources are directed to diseases that are regarded as serious, like communicable diseases such as HIV/AIDS and Tuberculosis (Dhaka & Mukwiilongo 2017:1). This has resulted in a deficiency of mental services, poor identification, management, treatment, and rehabilitation of individuals diagnosed with common mental illness.

Organisational level factors require resources, such as screening tools, guidelines, work manuals, and treatment protocols, and are affected by lack of government capacity, mental health priorities, perinatal guidelines and policies, awareness, capacity, and treatment service

pathways (Bayrampour, Hapsari & Pavlovic 2018:58; Adjorlolo & Aziato 2020:1783; Baron et al 2016:11; Ng'oma et al 2019:12).

4.3.6.3 Cultural influences and lack of community awareness about perinatal depression

The stigma attached to mental disorders, such as perinatal depression, affects the views of healthcare providers, decision-makers and the community towards people with mental illness. In Namibia all communities have their own explanations for mental illness. Most of them assumed that mental illnesses such as perinatal depression is caused by distress with supernatural force such as witchcraft, possession spirits and 'evil eye' punishment engaged at a person by another person or a supernatural being (Bartholomew 2016:110). Communities relate mental illness, such as depression, with witchcraft and spirituality and therefore seek cultural and religious attitudes to manage their depression rather than modern health services. This illustrates that cultural beliefs should be measured as one of important factors which influence mental health interventions. The author emphasized healthcare providers throughout the country should critically evaluate their methods to mental health and its treatment in order to capture cultural value systems pertinent to mental health.

Various studies have associated mental illness with spiritual origins, spiritual attacks, and supernatural factors, for instance, being possessed by evil powers and bewitchment, making it difficult for the affected person to seek help based on the stigma attached to it (Viveiros & Darling 2018:10). There is a common assumption that depression is a concept of wealthy western societies and is uncommon or non-existent in traditional communities. Perinatal depression has been reported in all cultures and is more prevalent in poorer societies (Green, Tuli, Kwobah, Menya, Chesire & Schmidt 2018:56). Hence, training of nurses about screening for perinatal depression should include creating awareness for depression among perinatal women and the community at large.

4.3.6.4 Shortage of healthcare providers

Some of the participants raised concern over the shortage of staff and suggested that involving social workers and psychologists would ease the shortage and workload. Several studies found that it was not possible to provide interventions for perinatal depression due to a shortage of staff (Abas et al 2016:7; Nakku et al 2016:6; Ng'oma et al 2019:14). There is a need to increase resources for doctors, nurses, midwives, social workers, community healthcare workers and other non-specialist providers to deliver integrated mental health care service delivery within the public health system (Andrews 2016:132).

To alleviate staff shortages, healthcare providers indicated a need to involve a multidisciplinary team to address maternal mental health (McCauley, Brown, Ofuso & van den Broek 2019:4). Multidisciplinary health service intervention programmes to provide continuous support to women and their children from the start of pregnancy were found to be effective (Tachibana et al 2019:6). Interdisciplinary training responsive to local service needs is needed and effective when developed, provided, and accompanied by interdisciplinary teams (Hauck, Kelly, Dragovic, Butt, Whittaker & Babcock 2015:254). To optimally screen, detect, and manage perinatal depression, there is a need for a coordinated multidisciplinary approach. Kakuma, Minas, Van Ginneken, Dal Poz, Desiraju, Morris, Saxena & Scheffler et al (2011:1654) proposed that task-shifting interventions could efficiently deliver mental healthcare in primary healthcare settings. Non-specialist health professionals, lay workers, affected individuals, and caregivers received brief training and proper supervision by mental health specialists to enable them to detect, diagnose, treat, and monitor individuals with mental disorders and decrease caregiver burden (Kakuma et al 2011:1659). Task shifting increased the number of persons who recovered from depression, lessened symptoms of perinatal depression in mothers, and was feasible, acceptable and low cost, but effective (Padmanathan & De Silva 2013:84).

4.3.6.5 Perinatal mental health not considered part of perinatal care.

The participants did not consider screening for perinatal depression part of their routine assessment. They were deeply rooted in their daily routines and changing their routines would be difficult. In South Africa, Abrahams, Boisits, Schneider, Honikman and Lund (2021:11) found that midwives indicated that they were mainly trained and responsible for the physical well-being of the women and her foetus during the perinatal period and were not adequately trained to address maternal mental health problems. A systematic review on interventions for perinatal depression in low- and middle-income countries found that healthcare providers expressed concern about being asked to provide mental health services in addition to their already busy routine, which they did not regard as part of midwifery care, and also cited discomfort when providing mental health (Gajaria & Ravindran 2018:117). In most developing countries, maternal mental health has been overlooked and not seen as part of the routine well-being and assessment of women (McCauley, Brown, Ofosu & van den Broek 2019:2). In Namibia, screening for perinatal depression is not included in current perinatal guidelines.

4.3.7 Theme 4: Interventions to assess maternal mental health

There is a growing interest in developing prevention and treatment interventions for perinatal depression, both in higher income countries and lower middle income countries (Waqas,

Koukab,, Meraj, Dua, Chowdhary, Fatima & Rahman, 2022:2). Meta-analysis findings indicated that identifying women for the treatment of perinatal depression could possibly lead to direct health benefits for women (Waqas et al 2022:2). Timely detection for perinatal depression could have indirect health and developmental benefits for their children (Fariás-Antúnez, Xavier & Santos 2018:150). Screening for perinatal depression could be done in the community by community health counsellors or at perinatal care settings. According to Byatt et al (2015:2) implementing routine screening done in conjunction with interventions that target women, healthcare providers and practice level barriers setting could improve detection, diagnosis and directing women to appropriate treatments .Educational interventions, such as psychoeducation, interpersonal psychotherapy, problem-solving, cognitive behavioural therapy, and parenting education, increase knowledge of maternal mental health among perinatal women (Rahman et al 2013:598). The sub-themes that emerged under the theme 'timing of optimal screening and provide psychosocial interventions'.

4.3.7.1 Timing of optimal screening

The participants expressed a need for timing of screening of perinatal depression. Timely identification for potential perinatal depression risk could ease prevention and management of perinatal depression. Williams, Turner, Burns, Evans and Bennert (2016:42) found that healthcare providers raised concerns that although it was important to detect perinatal depression for early interventions, they found it challenging to ask the three depression case-finding questions during the first antenatal care contact. They maintained that during the first antenatal encounter, there was insufficient time to build their relationship and develop the mutual trust required before screening. Moreover, in early pregnancy, women often suffer from poor appetite, nausea and fatigue as minor disorders of pregnancy; therefore, their symptoms might be misinterpreted as depression (Williams et al 2016:42).

The WHO recommends that physiological and psychosocial assessment should begin during the first contact, as part of a comprehensive assessment, when healthcare providers prompt medical, surgical, social, psychological and obstetrical history, which may affect the outcome of the current pregnancy (Mathibe-Neke 2014:626).

4.3.7.2 Provide psychosocial interventions

The participants suggested direct counselling as an intervention for women diagnosed with perinatal depression and indicated the need to train all healthcare providers on direct counselling. No other intervention was mentioned. This revealed limited knowledge about other health support interventions that could be used to prevent and alleviate symptoms of perinatal depression. There are various psychosocial interventions reported in the literature

that could be used to treat or alleviate the symptoms of perinatal depression. Psychoeducational interventions include interpersonal psychotherapy, problem-solving approach, cognitive behavioural therapy, and parenting education increase knowledge on maternal mental health among perinatal women (Rahman et al 2013:598). Psychosocial interventions are theory-based or manualised approaches that might be used to treat depression, anxiety and other mental illness (Hides, Quinn Stoyanov, Kavanagh & Baker:2019 :8). The authors add psychosocial approaches are used to control thoughts, feelings, behaviours, interpersonal relationships, social and environmental variables that may predispose a person to depression.

Promoting early detection and treatment was found to be effective in increasing knowledge about postpartum depression, its causes, symptoms, recognition and encouragement for help-seeking behaviour (Rahman et al 2013:598). A comparison between high-intensity and low-intensity psychosocial interventions to manage perinatal depression provided by trained community midwives in Nigeria revealed that psychosocial interventions were feasible and acceptable (Gureje, Oladeji, Montgomery, Araya, Bello, Chisholm, Groleau 2019:533). Psychosocial interventions are regarded to be cost effective. After suitable training continuous supervision and with relevant knowledge and skills psychological interventions provided by nurses and midwives can significantly reduce the severity of perinatal depressive symptoms (Wang, Tzeng, Yeh, & Teng, 2021:10) .

4.3.8 Theme 5: Integration of perinatal mental health into the primary health care setting

Globally, mental illness is becoming a problem. It is estimated that around 450 million individuals all over the world are suffering from a mental health illness, ranking mental illness in the top five disorders (Mohamed Ibrahim, Ibrahim, Al-Tameemi & Riley 2020:972). This is leading to disability according to global disability-adjusted life years. A review conducted in six African countries revealed that there is a high burden of mental neurological and substance use disorders (Mugisha, Abdulmalik, Hanlon, Petersen, Lund, Upadhaya, Ahuja, Shidhaye, Mntambo & Alem 2017 2017:10).

Mental health problems are not well studied in Namibia. The prevalence of mental illness in Namibia is anticipated to be around 25.6% and is expected to double by 2025 (Kafula et al 2020:1000). The leading causes of mental illnesses in Namibia includes socio-economic factors, abuse of alcohol , drugs, chronic infections among others HIV/AIDS, and domestic violence. All of these might have a negative impact on the psychological well-being of Namibians (Bartholomew, 2016:106). All the above mentioned burden does not exclude

women during the perinatal period and were prevalent in the study. Therefore, Mugisha et al (2017:10) recommended the integration of mental health in the primary health care setting thus include maternal mental health.

The integration of perinatal mental health into primary health care (PHC) and its use of screening tools is feasible and acceptable and is promoted for early detection of perinatal depression (Hamel, Lang, Morissette, Beck, Stevens, Skidmore, Colquhoun, LeBlanc, Moore & Riva 2019:3). Lomonaco-Haycraft, Hyer, Tibbits, Grote, Stainback-Tracy, Ulrickson, Lieberman, van Bekkum, and Hoffman (2018:1) developed a national health model in the USA on how to integrate perinatal mental health into primary health care settings. According to the programme, women should attend antenatal care for an average of eight contacts sessions and two contacts session during the first six to eight weeks following delivery. This would give healthcare providers enough opportunities to address maternal mental health. During this period screening, assessment, treatment, and follow-up should be implemented. This might lead to an improvement in overall maternal and child health outcomes (Lomonaco-Haycraft et al 2018:3).

To bring health closer to people the government of Namibia established a Primary Health Care (PHC) system under the Ministry of health social services (MoHSS) which adopted PHC in 1990 immediately after gaining independence (Christians, 2020:1). The MoHSS is the director and provider of public health services in the whole country. It functions a four tiered health system, comprising of PHC sites, district hospitals, intermediate hospitals and a referral hospital (Christians, 2020:1). A large network of PHC settings serves the majority of uninsured, economically disadvantaged patients in Namibia, providing access to a principally nurse midwives-led health network, supported by doctors and social workers. The researcher is of the opinion that integration of maternal mental health program into PHC would not pose challenges for Namibia because there is already an existing PHC program and resources available. The integration of perinatal mental health into the primary health care setting is described according to three sub-themes below.

4.3.8.1 Include a brief screening tool in the perinatal records translated into five local languages

For integration of maternal mental health into PHC to be successful, the screening tool should be culturally sensitive. The participants suggested that the tool be translated into the five most spoken local languages so that women could understand it better. These findings concur with McCauley, Brown, Oforu and van den Broek's (2019:5) recommendation of the introduction of culturally appropriate routine mental health screening tools for use within existing services.

The findings also concur with Kagee, Tsai, Lund and Tomlinson (2013:13) that the tools must have high sensitivity and specificity but also remain culturally and clinically useful.

Namibia is a multicultural country with nine indigenous ethnic groups, namely Aawambo (50.0%), Kavango (9.0%), Herero (7.0%), Damara (7.0%), Nama (5.0%), Lozi (4.0%), San (3.0%), Baster (2.0%), Tswana (0.5%) and Whites (12.5%) (Chinsebu & Hamunyela 2015:362). In Namibia, all communities have their own explanations for mental illness such as perinatal depression. Therefore a short, validity and reliability screening tool is much needed to assist in detecting depressive symptoms during the perinatal period.

Screening for perinatal depression can be done using various tools include EPDS , Hopkins Symptoms Checklist 15 (HSCL-15) SRQ and Whooley's Questions. These tools have been validated for use during perinatal care in various countries and low-resource settings, because of their accuracy, sensitivity, specificity and clinical usefulness (Chorwe-Sungani & Chipps 2017:2; Natamba, Achan, Arbach, Oyok & Ghosh 2014:4; Stewart, Umar, Tomenson & Creed 2013:1044). Most of these tools were developed in Western countries. The use of a Western-derived tool to assess perinatal depression in a different cultural context is not invalid, given the fact that many symptoms of depression are universal by (Tsai et al 2013:5). However, there is a strong need for researchers from less developed countries to develop, refine and rigorously contextualise perinatal depression assessment tools. (Gelaye,2016:9).

According to Larsen et al (2021:5-6), diagnostic screening instruments and their use in perinatal care settings in Sub-Saharan Africa should be evaluated based on four critical areas: screening instrument diagnostic performance, cultural appropriateness; acceptability, adaptability and feasibility, and ease of implementation. This implies that the detection of perinatal depression may be improved by using a tool that is culturally sensitive, feasible and acceptable to local people.

4.3.8.2 Provide adequate resources

The participants stated that to successfully integrate maternal mental health into primary health care require adequate resources. Worldwide, the under-prioritisation of mental health services is considered a major contributing factor to the mental treatment gap (Spedding 2017:26). Lack of infrastructure with less than 1% of the national health budget allocated to mental health institutions is a factor hindering the integration of maternal mental health into PHC in most low- and middle-income countries (Patel et al 2018:1596). In addition, in most low- and middle-income countries, there are few mental institutions, and most are allocated

far from other healthcare institutions (Baldisserotto, Theme, Gomez & dos Reis 2020:103; Fonseca, Goyareb & Canavarro 2015:1177).

In Namibia, mental health also receives less priority because more resources are directed to diseases regarded as more serious, such as communicable diseases like HIV/AIDS and other life-threatening diseases like malaria (Amathila 2019:4). Mental health services in Namibia are provided through two specialized psychiatric hospitals. One is located in Windhoek, and the other in the northern regions at Oshakati Intermediate Hospital. Although the private sector also offers mental health treatment, it is limited to the few users who can afford it (Amathila, 2019:4). Lack of human resources such as mental healthcare specialists and general healthcare providers has been reported in one mental healthcare institution setting in the country, making it difficult to detect, manage, treat and refer people with severe mental illness (Ashipala, Wilkinson & van Dyk 2016:53).

4.3.8.3 Outline clear referral pathways

It appears that women with suspected depression and presenting with other psychosocial matters were referred to a social worker, available at only two maternity hospitals, namely Windhoek Central and Katutura. This concurs with the findings of a study conducted in South Africa in which healthcare workers highlighted the lack of standardised referral pathways and the poor uptake of referrals of women diagnosed with perinatal depression (Abrahams, Boisits, Schneider, Honikman & Lund 2021:13). Management of women with positive screening results requires timely intervention, proper treatment and referral (Xue, Cheng, Xu, Jin & Gong 2020:1). It is very important that each perinatal clinical setting have a management algorithm for women diagnosed with severe depression to enable proper interventions and to identify which resources are required during referral (Kendig et al 2017:275). Furthermore, procedures should clearly outline additional assessments, immediate escalation of care, as well as choices for treatment and available emergency support in the case of suicide risk.

4.3.9 Theme 6: Acceptability and feasibility of interventions utility

The evidence generated in lower and middle incomes countries indicated that psychosocial interventions are reasonably acceptable and feasible for implementation of initiatives (Barbui, Purgato, Abdulmalik, Acarturk, Eaton, Gastaldon, & Thornicroft 2020:1). However, the authors noted the challenges specific to lower and middle incomes countries, including the need for training, fidelity checks, supervision, and monitoring, concerns about cultural and social acceptability. Considerations should be given on feasibility associated with financial and differences in mental health infrastructure. Baron et al (2016:12) also emphasised strong

support structures, supervision and monitoring for successful interventions of psychosocial interventions at PHC setting in scarce resources setting. Psychosocial support delivered by midwives and family are found to be effective in preventing postpartum depression in adolescent mothers (Sangsawang, Deoisres, Hengudomsub, & Sangsawang 2022:688). The acceptability and feasibility of interventions utility is described according to two sub-themes below.

4.3.9.1 Feasibility and acceptability of integration of mental health screening and psychosocial care into perinatal care

The participants were optimistic about the integration of mental health and psychosocial care into perinatal care which would be accepted by both healthcare providers and women. Integrating psychosocial interventions and screening of mental health into perinatal care in upper, middle and low-income countries has proven its efficacy, sustainability and acceptability to lessen the signs and symptoms of perinatal depression (Nyatsanza et al 2016:9 Lomonaco-Haycraf et al 2018:1). Kingston, Biringer, McDonald, Heaman, Lasiuk, Hegadoren, McDonald et al (2015:e36) found a high level of acceptance of perinatal depression screening by healthcare providers and women.

In Namibia, interventions for screening HIV and TB during perinatal visits have worked well in reducing HIV and TB transmission. In their study on integrating mental health care in five low- and middle-income countries, Hanlon et al (2014:9) found that existing networks of community extension health workers and volunteers in most settings offered further opportunities for interventions to be acceptable and feasible. So it is possible to integrate with positive economic outcomes if the government can be convinced.

However some participants had mixed reactions and doubts about the feasibility of screening for perinatal depression in their settings. They feared that the feasibility might be hindered by the financial difficulties the government is currently facing. The view on financial difficult might be linked to the fact that, Namibia was ranked an upper middle-income country with the average income per capital +-US\$5,000 (National Planning Commission, 2021:67). This move has made most of donors to withdraw their assistance in the country and placed burden on the government. National planning commission add assistance from donors has been on a downward trajectory, constant with experience of other countries. The country is faced with high levels of unemployment, persistent drought, and the recent COVID-19 pandemic which aggravated the matter (National Planning Commission, 2021:67). The study findings are consistent with Nakku et al (2016:10) where healthcare providers believed that integration of

perinatal mental health screening was feasible but some had doubts and cited financial as a barrier.

4.3.9.2 Training and supervision

The participants indicated a desire to learn and identified gaps in their knowledge. Williams, Turner, Burns, Evans, and Bennert (2016:46) found that healthcare providers benefited from additional training to support them in managing perinatal depression. Padmanathan and De Silva (2013:83) stress that training and supervision are central to ensuring feasibility. Dadi, Miller, Bisetegn and Mwanri (2020:18) emphasize that enough healthcare providers should be trained in all health facilities that are expected to intervene in perinatal depression. Furthermore, Kendig et al. (2017:275) state the importance of training health care providers on how to properly conduct the screening, when to administer screening instruments, how to manage, and how to facilitate effective referral and follow-up. Task-shifting with short training and proper supervision by qualified healthcare providers and mental health specialists enabled non-specialist healthcare providers or lay workers to detect, diagnose, monitor and refer individuals with perinatal depression (Purgato, Uphoff, Singh, ThapaPachya, Abdulmalik, & van Ginneken 2020:2; Kakuma et al 2011:1656). Training that integrates role modelling and clinical supervision are recognized as mechanisms to improve midwives' self-efficacy to deliver emotional care to women (Austin, Colton, Priest, Reilly, & Hadzi-Pavlovic 2013:22).

4.3.10 Integration of qualitative findings

The results were integrated using a side-by-side comparison approach or parallel database variant, as described by Creswell and Plano-Clark 2018:87. The results were for the evidence required to develop the guidelines to manage perinatal depression. Table 4.1. describes how the results of qualitative findings for phase 1 objective 1 ,2, 3 and 4 were integrated.

Table 4.1 Integration of phase 1 objective 1, 2 ,3 and 4 findings				
Objective	Findings	Conclusions	Merging findings	Challenges
<p>Objective 1 Explore and describe the experiences of women with perinatal depression</p>	<ul style="list-style-type: none"> • Awareness of depression <ol style="list-style-type: none"> 1..Manifestations of perinatal depression 2. Conceptualisation of perinatal depression 3. Suicidal ideations • Effects of depression on activities of daily living <ol style="list-style-type: none"> 1.Difficulty to perform daily tasks 2. Social isolation 3. Feelings of disappointment 4. Effects on the family • Multidimensional causes of perinatal depression <ol style="list-style-type: none"> 1. Financial struggles 2. Unemployment and poverty 3. Lack of social and emotional support 4. Gender-based violence 5. Paternity denial and rejection 6. Fear to disappoint parents 7. Unplanned or unwanted pregnancy 8. The effect of being HIV-positive during pregnancy • Factors contributing to or exacerbating perinatal depression <ol style="list-style-type: none"> 1. Emotional instability 2. Fear of losing current pregnancy 3. Fear to be judged by society/ Stigmatisation 4. Chronic illness 5. Dwelling on thoughts • Interpersonal factors that have a negative/positive influence on perinatal depression <ol style="list-style-type: none"> 1. Living in toxic or abusive relationship 	<p>Participants conceptualised perinatal depression as emotional problems, a troubled mind, and overthinking. The participants believed that their burdens were due to social challenges they were facing, which forced them to have suicidal ideations</p> <p>Perinatal depression is multifaceted phenomena caused by biopsychosocial factors.</p>	<p>The experiences of women with perinatal depression objective 1 and 2</p>	<ul style="list-style-type: none"> • Difficulty recognizing signs and symptoms of perinatal depression. • Lack of guidelines and screening tools • Lack of guidelines and health service approach to maternal mental health

	<p>2.Positive experiences</p> <ul style="list-style-type: none"> • Coping mechanisms used by women with perinatal depression <ol style="list-style-type: none"> 1.Spiritual coping 2.Distracton 3.Self-reliance and resilience 4.Social and social support 	<p>Coping strategies used by women on dealing with perinatal depression are similar psychosocial interventions.</p>		
<p>Objective2. Explore and describe the and needs of women with perinatal depression.</p>	<ul style="list-style-type: none"> • Support needs of women with perinatal depression <ol style="list-style-type: none"> 1.Social needs 2.Health care support <ul style="list-style-type: none"> • Health care needs of women with perinatal depression <ol style="list-style-type: none"> 1.Create awareness about depression 2. Screening for perinatal depression 3.Pharmacological intervention 4. Need for privacy and confidentiality 5. Follow up visits. 	<p>The participants expressed a need for more comprehensive services at the clinic, including perinatal depression</p>	<p>The needs of women with perinatal depression objective 3, and 4</p>	
<p>Objective 3 Explore and describe the healthcare providers' experiences of working with women with perinatal depression</p>	<p>Understanding of perinatal depression</p> <ol style="list-style-type: none"> 1.Signs and symptoms of perinatal depression 2.Difference between perinatal depression and puerperal psychosis <p>Consequences of undetected and untreated perinatal depression</p> <ol style="list-style-type: none"> 1.Suicide or harming others 2.Infanticides / abandoning 3.Miscarriages/premature births/intra-uterine deaths 4.Lack of self-care and care of baby 5.Family discord 6.Poor milk production 7.Chronic illness <p>Biopsychosocial factors causing perinatal depression</p> <ol style="list-style-type: none"> 1. Biological factors 2. Social factors 	<p>Complications of perinatal depression Miscarriages/premature births/intra-uterine deaths</p> <p>Consequences are: Suicide or harming others Infanticides and abandoning</p> <p>Perinatal depression could add to aggravate family discord, Possibly affect poor milk production, Cause chronic illnesses, such as hypertension, diabetes mellitus and cardiac conditions</p>	<p>The experiences of healthcare providers of working with women with perinatal depression objective 1, ,and 2</p>	

4.1 1

	3. Psychological factors			
<p>Objective 4</p> <p>To explore and describe the barriers to manage perinatal depression in Namibia</p>	<ul style="list-style-type: none"> • Barriers preventing assessment of perinatal depression <ol style="list-style-type: none"> 1. Difficulty recognizing signs and symptoms of perinatal depression. 2. Lack of guidelines and screening tools 3. Cultural influences and lack of community (public) awareness 4. Shortage of healthcare providers 5. Perinatal mental health not considered part of perinatal care • Perceived interventions to assess maternal mental health <ol style="list-style-type: none"> 1. Timing of optimal screening 2. Provide psychosocial interventions 3. Pharmacological intervention • Integration of perinatal mental health into the primary health care setting <ol style="list-style-type: none"> 1. Screening tool in the perinatal records that is translated into five local languages, 2. Provide adequate resources 3. Create awareness in the community, 4. Outline clear referral pathways • Acceptability and feasibility of interventions utility <ol style="list-style-type: none"> 1. Feasibility and acceptability of integrating mental health screening and psychosocial care into perinatal care. 2. Training and supervision 	<p>Lack of guidelines and health service approach to maternal mental health</p> <p>Perinatal mental health should be integrated into existing primary health care.</p> <p>Healthcare providers should screen for perinatal depression.</p>	<p>Barriers to manage perinatal depression Objective 1,2,3,and 4</p>	

4.3.10.1 Evidence to develop guidelines to manage perinatal depression

The study findings indicate that both women with perinatal depression and healthcare providers were aware of signs and symptoms of perinatal depression. Physical symptoms included feeling tired, being sleepy, loss of appetite, weight gain, headache, irritated and mood changes. Psychosocial symptoms expressed by participants included feelings of worthlessness, sadness or sorrow, hopelessness, stress or anxiety, loneliness or self-isolation as evidenced by objective 1 and 2. Women believed that their burden were due to social challenges they are facing which forced them to have suicidal ideations. Healthcare providers revealed the consequences of untreated perinatal depression include suicide and infanticide. This finding is supported by objectives 1 and 2 .

Furthermore, women indicated how perinatal depression has an effect on activities of daily living. They find it difficult to perform daily tasks, social isolation, and feelings of disappointment. Healthcare providers indicate mothers who suffer from perinatal depression put them at greater risk of neglecting themselves and their babies, and become a burden to their families. This is supported by objectives 1 and 3 of the study.

The study findings indicate that both women with perinatal depression and healthcare providers were aware of the cause of perinatal depression. The cause of perinatal depression include biological factors, social factors and psychological factors (biopsychosocial) (as evidenced by objective 1 and 2). Moreover, women described coping mechanisms include spiritual coping, distraction, self-reliance and resilience and social and social support. These coping strategies assisted women in dealing with perinatal depression. Healthcare providers suggested psychosocial interventions should incorporated in the management of perinatal depression. These coping strategies would assist healthcare providers to manage perinatal depression on the perinatal care settings as supported by objectives 2, 3 and 4.

The empirical data retrieved from semi structured interviews with women diagnosed with perinatal depression revealed support and health care needs of women with perinatal depression. Women expressed the need to be screened for perinatal depression, create awareness about depression and pharmacological intervention as evidenced by objective 2 and 4, whereas semi structured interviews with the health care providers revealed the barriers preventing health care providers to manage perinatal. Lack of guidelines and screening tools was a major barrier identified by healthcare providers. This made healthcare providers inadequately prepared to manage perinatal depression in the perinatal care settings. This is

reflecting the need to develop the guidelines to manage perinatal depression as evidenced by objectives 1,2,3 and 4.

4.4 Conclusion

This chapter discussed the findings of phase 1, objectives 1, 2, 3 and 4 of the study. **The first objective** explored and described the experiences of women with perinatal depression. The participants were aware of perinatal depression used culturally applicable phrases/idioms to express their experiences and understanding of perinatal depression. Participants conceptualised perinatal depression as emotional problems, a troubled mind, and overthinking. The participants were able to describe the signs and symptoms of perinatal depression that fall into either physical or psychosocial categories. They further reported how depression affected their functioning during the perinatal period include inability to concentrate and complete their household chores. They described the multidimensional causes of perinatal depression include social, biological and psychological factors. The findings indicated that the participants used different coping strategies in dealing with perinatal depression. Thus, the findings suggest perinatal depression has a significant impact on the maternal mental well-being.

Second objective, The participants identified two needs namely support and health care needs. The participants stated they need health care and social support, engagement, assurance and informal counselling from health care providers and the community. Healthcare support and services should be integrated into the management of health care needs. The participants expressed a need for more comprehensive services at the clinic, including perinatal depression. The findings therefore suggested that healthcare providers should screen for perinatal depression.

Third objective, The participants understood perinatal depression as a mental health problem occurring during pregnancy or after childbirth and related it to signs and symptoms. The participants add perinatal depression was common in Namibia and perinatal depression is often under diagnosed by treating healthcare providers. The participants stated that perinatal depression could be caused by biological, psychological and social (biopsychosocial) factors. They stated that undetected and untreated perinatal depression could have several consequences for women, fetuses, babies and the community, including baby dumping and infanticide, complications during pregnancy, such as miscarriage, intrauterine death and premature birth. In addition, perinatal depression could add to or aggravate family discord, possibly affect poor milk production, and cause chronic illnesses, such as hypertension,

diabetes mellitus and cardiac conditions. This findings indicate the urgent need to develop guidelines to manage perinatal depression.

Fourth objective: The participants indicated a lack of guidelines and health service approach to maternal mental health, as barriers to assessment and management of perinatal depression. They suggested interventions that would assist in assessing perinatal or maternal mental health including timing of optimal screening. They maintained that the consideration of these interventions would facilitate access to perinatal mental health. Perinatal mental health should be integrated into existing primary health care. This could transform a routine perinatal care setting into a one-stop clinic providing holistic care to address physical and mental health needs. The integration of maternal mental health programmes into PHC should prove relatively easy for Namibia because an existing PHC programme and resources, such as an HIV and TB programme, were available.

CHAPTER 5 : PHASE 2: SYSTEMATIC REVIEW OF GUIDELINES TO MANAGE PERINATAL DEPRESSION

5.1 Introduction

Chapter 3 presented the findings of Phase 1, with reference to the literature review. This chapter describes the systematic literature review conducted to answer the question: What are the guidelines used to manage perinatal depression globally? A systematic review is a structured and pre-defined method that requires rigorous approaches to guarantee that the outcomes are both reliable and meaningful to end users (Munn, Peters, Stern, Tufanaru, McArthur, & Aromataris, 2018:2). The purpose of systematic reviews is to summarize the best available evidence using rigorous and transparent approaches (Aromataris & Pearson 2014:58). The review is also considered a pillar of evidence-based healthcare and is broadly used to enlighten the development of trustworthy clinical practice guidelines (Pearson, Jordan & Munn 2012:6), which was the purpose of this study.

5.2 Background

The aim of the systematic review in this study was to search for perinatal guidelines that address perinatal depression around the world that could be adapted to the Namibian context. According to Rahman, Surkan, Cayetano, Ragwatara and Dickson (2013:2), perinatal depression is the primary cause of diseases in women globally and suicide is considered a leading cause of deaths among women of childbearing age. Perinatal depression has been associated with infant morbidity such as premature births, low birth weight with numerous health indicators affecting the infant, such as negative effects on infant physical and cognitive development (Rahman et al 2013:2; Gajaria & Ravindran 2018:118). Perinatal depression has also been linked with risk of poor bonding, reduced medical check-ups, poor foetal development, preterm deliveries and low care of the infant (Cook, Ayers & Horsch 2018:13).

In their study, Bayrampour, Hapsari and Pavlovic (2018:53) identified a lack of local guidelines as a barrier to addressing mental health issues in childbearing women. Interventions for maternal mental health issues, including perinatal depression, are lacking in low- and middle-income countries (Adjorlolo & Aziato 2020:1783; Baron et al 2016:11; Gajaria & Ravindran 2018:118). There is a need to develop guidelines to manage perinatal depression in these settings. Habbema, Wilt, Etzioni, Nelson, Schechter, Lawrence, Melnikow et al (2014:812) emphasize that guidelines should be based on the best scientific evidence derived from systematic reviews of primary research.

The development of perinatal depression guidelines or any guidelines is usually expensive and time-consuming process for lower and middle incomes countries. (Attia, 2013:124). It

require a dedicated teams of experts, highly scientific methodology, this includes topic selection, development of multidisciplinary teams including all healthcare providers. It also require consumers (patients), methodologists, clinicians, managers, policy-makers search for the latest evidence, critique, dispute the usefulness. The team should reach consensus on the relevance of the body of evidence which could provide relevant guidelines to manage perinatal depression local evidence (McCaul et al.(2020:1;Attia, 2013:124; Dizon, Machingaidze & Grimmer, 2016:2). Thus, low-resources countries like Namibia might not reproduce the above methodology to develop the guidelines.

International evidence-based perinatal mental health guidelines have been developed in the United Kingdom (UK), Scotland, Australia, and Canada (Attia 2013:124). These perinatal guidelines may be adopted, adapted or contextualised in other settings linked to the local context or needs (Verschueren, Kodan, Brinkman, Paidin, Henar, Kanhai, Browne, et al 2019:2; Dizon, Machingaidze & Grimmer 2016:3). Most of the perinatal guidelines are developed in high-income countries and often not directly applicable in low- or middle-income countries due to a lack of cultural adaptation or sensitivity (Verschueren et al 2019:2). Guidelines developed in one setting, then, may not be appropriate for another, without change or adjustment.

Cultural adaptation involves systematic amendment of interventions and training materials to reflect language, culture, and context that is compatible with the patients' cultural patterns, meanings and values (Brown, Aoun, Taha, Steen, Hansen, Bird, Dawson, et al 2020:2). To retain fidelity to evidence-based management, it is usually recommended that the essential intervention components are maintained, while other changes might be made to improve fit in terms of acceptability, comprehensibility, relevance, and completeness (Brown et al 2020:2). Contextualising of clinical practice guidelines happens when guidelines developed elsewhere are fully adopted, but their effective implementation requires caveats and additional considerations to address local context (Dizon 2016:3). Contextualisation normally relates to local service delivery matters. This change is called adaptation (Dizon et al 2016:5), defined as a systematic approach considering the use and/or modification of guidelines developed in one cultural or organizational setting for application in a different context. Without adaptation, healthcare providers might consider international guidelines unfeasible and impractical.

The findings of the current study revealed that perinatal depression is prevalent in Namibia. The findings also revealed that women who developed perinatal depression were burdened with psychosocial issues such gender based violence. The findings further revealed screening and management of perinatal depression not part of perinatal care in the Namibia. In addition

healthcare providers participated in the study indicated lack of perinatal guidelines prevent them to screen, and manage perinatal depression. According to Birbeck, Wiysonge, Mills, Frenk, Zhou and Jha (2013:4), perinatal depression in low- and middle-income countries is often higher than in high-income countries. Therefore, a focus on evidence-based perinatal depression to detect and manage it is often more urgent to reduce its effect on mothers and their infants and ensure optimal care.

The study aimed to develop guidelines to manage perinatal depression in Namibia. These guidelines were developed as part of the current completed research; therefore, the developmental process of the guidelines was limited. Hence the researcher opted to conduct a systematic review to search for guidelines used to manage perinatal depression globally and adapt on Namibia context.

5.3 Target population

A systematic review of all available national and international guidelines used to manage perinatal depression was conducted.

5.4 Sampling and sample

The researcher conducted a systematic, electronic literature search of PubMed, Google Scholar, Cochrane Library, Cumulative Index of Nursing and Allied Health Literature (CINAHL) to retrieve guidelines for managing perinatal depression globally. The researcher consulted the National Guideline Clearinghouse (NGC), the National Institute for Health and Care Excellence (NICE) and relevant websites in English-speaking countries including the Royal College of Obstetricians and Gynaecologists (RCOG), Royal Australian College of General Practitioners (RACGP) and the American Academy of Paediatrics (AAP) for perinatal guidelines. Date limits were set from 2010 to 2021, with a wider search period expected to yield many relevant perinatal guidelines with recent evidence. The search criteria followed the PICOT as described by (Riva, Malik, Burnie, Endicott, & Busse, 2012:168). (1) Population: are women with perinatal depression in Namibia, (2) Intervention: Biopsychosocial interventions (3) Comparison: none (4) Outcomes: Improvement of the mental wellbeing of women during the perinatal period. (5) Time: The systematic review was conducted between July 2021 and January 2022. The review purposively considered perinatal guidelines that included perinatal depression management. All perinatal guidelines published in the previous 10 years were searched, using the terms 'perinatal depression, antenatal depression, postnatal depression, maternal mental health, perinatal depression guidelines.

5.4.1 Review questions

- What are the current perinatal guidelines available globally that may be adapted to manage perinatal depression in Namibia?
- What are the screening tools used to identify perinatal depression?
- What interventions are used to manage perinatal depression?

5.4.2 Inclusion and exclusion criteria

Inclusion criteria:

- Perinatal guidelines that included recommendations intended to optimize perinatal mental health and were informed by consensus and evidence-based guidelines.
- Guidelines with recommendations on routine screening for perinatal depression during antenatal (pregnancy) care, postpartum care, management, referral, treatment and target primary healthcare providers.
- Guidelines aimed at state or nation-wide level, with recommendations for care directly considering cultural response and women's context
- Guidelines available in English full text on the internet.

Exclusion criteria:

- Consensus statements, reports, perinatal mental programmes, dissertations, and articles were excluded from the review.
- Perinatal guidelines that only focused on the management of pregnancy complications in general and did not include perinatal depression.
- Guidelines developed before 2010 to exclude guidelines that are outdated, not in English, and not informed by consensus.

5.5 Data collection

After the first search, the researcher removed duplicates and irrelevant articles (conferences, congresses, editorials, commentaries, reviews, and old guidelines). Realizing that guidelines are rarely published in medical journals, the researcher employed a wider search for guideline-specific databases such as the National Guideline Clearinghouse (NGC) and National Institute for Health and Care Excellence (NICE) and relevant college websites in English-speaking countries including the Royal College of Obstetricians and Gynaecologists (RCOG), Royal Australian College of General Practitioners (RACGP) and the American Academy of Paediatrics (AAP) were searched for perinatal guidelines. The researcher also searched on reference lists of identified guidelines. When searching these databases, the following terms were used: perinatal guidelines OR management of perinatal depression, perinatal depression

OR depression, postpartum depression, perinatal mood disorders, perinatal mood and anxiety disorders, perinatal mental illness, prenatal depression, combined with the following terms: screening, AND universal screening, health screening, treatment(s), barriers, referrals, interventions, programs, collaborative care, untreated depression, perceptions, risk factors. The search retrieved 530 perinatal guidelines.

5.6 Results

The search revealed a total of 530 perinatal guidelines, of which 360 remained after duplicates were removed (see figure 4.1). The researcher reviewed the scopes of these guidelines, and 342 guidelines were excluded because they did not include perinatal mental health or maternal mental health but were general perinatal guidelines excluding maternal mental health. Some were reports, programmes, not informed by consensus and a systematic review, which meant that they were not evidence-based guidelines. All perinatal guidelines from developing countries did not include perinatal depression management. A further 18 guidelines were compared against the inclusion and exclusion criteria and 11 were rejected because they focused on anxiety, severe mental illnesses such as schizophrenia, bipolar disorder, and postpartum psychosis. Finally, seven guidelines were included in the review (see Table 4.1). Figure 4.1 depicts the selection process.

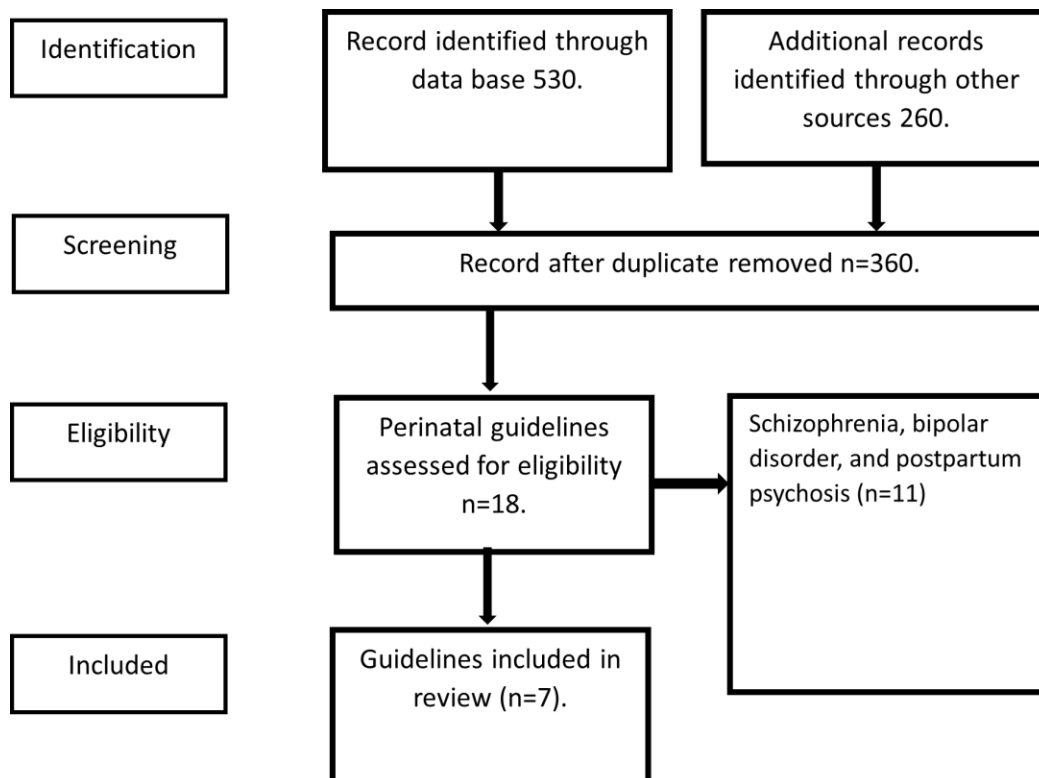


Figure 5.3 PRISMA flow chart of the study identification process for systematic reviews 2020

5.6.1 Guidelines included in the study

The researcher included seven guidelines in the study, namely.

1. Centre of Perinatal Excellence (COPE). 2017. *Effective mental health care in the perinatal period: Australian clinical practice guidelines*.
2. Department of Health. 2018. *Clinical Practice Guidelines: Pregnancy Care*. Canberra: Australian Government Department of Health.
3. Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) Australia and New Zealand. 2017. *Mental Health Care in the Perinatal Period*.
4. National Collaborating Centre for Mental Health. 2018. *Antenatal and postnatal mental health clinical management and service guidance*. National Institute for Clinical Excellence (NICE).
5. Beyondblue. 2011. *Clinical practice guidelines for depression and related disorders – anxiety, bipolar disorder and puerperal psychosis – in the perinatal period. A guideline for primary care health professionals*. Melbourne: Beyondblue: the national depression initiative.
6. Scottish Intercollegiate Guidelines Network (SIGN). 2012. *Management of perinatal mood disorders*. Edinburgh: SIGN.
7. Reproductive Mental Health Program & Perinatal Services BC. 2014. *Best Practice Guidelines for Mental Health Disorders in the Perinatal period*.

5.6.2 Characteristics of selected guidelines

The selected perinatal guidelines were published between 2010 and 2018 and (4) were from Australia (2) from United Kingdom (UK) and (1) Canada. All the guidelines focused on the early identification of women experiencing perinatal depression, anxiety, psychosocial problems and other mental health conditions in the perinatal period. They recommended screening for perinatal depression and the use of psychosocial and pharmacological interventions (see Table 4.1). Among the seven selected guidelines, the ones developed in Australia were more culturally sensitive or accommodative. These guidelines were developed to accommodate the Aboriginal and Torres Strait Islander women who often present with complex mental health problems, cultural disconnect, multiple stressors in the form of poverty or poor housing, and others. The findings in phase 2 indicated that perinatal women in Namibia

face similar complex presentations. Table 4.1 lists the characteristics of the selected guidelines.

Table 5.1 Characteristics of selected guidelines

Guideline	Country of origin and year of publication	Screening for perinatal depression	Screening tool for perinatal depressive symptoms	Screening for psychosocial issues	Screening tool for psychosocial issues	Interventions	Culturally appropriate screening for depression	Suitable for low-resource settings
1. Centre of Perinatal Excellence. (COPE, 2017). Effective mental health care in the perinatal period: Australian Clinical Practice Guidelines.	Australia 2017	Yes	EPDS, K10, PHQ2, Whooley questions	Yes	Antenatal Psychosocial Health Assessment (ALPHA), The Ante Natal Risk Questionnaire (ANRQ) The Pregnancy Risk Questionnaire (PRQ).	Psycho-education Pharmacology	Yes	Yes
2. Department of Health. 2018. Clinical Practice Guidelines: Pregnancy Care. Canberra: Australian Government Department of Health.	Australia 2018	Yes	EPDS, PHQ-9, Whooley questions, K10	Yes	The Antenatal Risk Questionnaire (ANRQ), The Antenatal Psychosocial Health Assessment (ALPHA) The Pregnancy Risk Questionnaire (PRQ)	Psycho-education	Yes	Yes
3. Mental Health Care in the Perinatal Period. 2017. Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) Australia and New Zealand	Australia and New Zealand 2017	Yes	EPDS, PHQ-9, K10, Whooley questions	Yes	The Antenatal Risk Questionnaire (ANRQ)	Psycho-education Pharmacology	Yes	Yes
4. National Collaborating Centre for Mental Health. 2018. Antenatal and postnatal mental health Clinical management and service guidance. National Institute for Clinical Excellence (NICE).	British 2018	Yes	EPDS	No	No	Psycho-education Pharmacological	No	No
5. Beyondblue. (2011). Clinical practice guidelines for depression and related disorders – anxiety, bipolar disorder and puerperal psychosis – in the perinatal period. A guideline for primary care health professionals. Melbourne: Beyondblue: the national depression initiative	Australia 2011	Yes	EPDS	Yes	The Antenatal Risk Questionnaire (ANRQ), The Antenatal Psychosocial Health Assessment (ALPHA) The Pregnancy Risk Questionnaire (PRQ)	Psycho-education Pharmacological	Yes	Yes
6. Scottish Intercollegiate Guidelines Network (SIGN). 2012. Management of perinatal mood disorders. Edinburgh: SIGN;.	United Kingdom 2012	Yes	EPDS, Whooley questions	No	No	Psycho-education Pharmacological	No	No
7. Reproductive Mental Health Program & Perinatal Services BC. 2014. Best Practice Guidelines for Mental health Disorders in the Perinatal period.	Canada 2014	Yes	EPDS	No	No	Psycho-education Pharmacological	No	No

5.7 Discussion of specifics in guidelines

This section discuss the specific characteristics of the seven selected guidelines. The discuss include recommended time for screening , screening instruments recommended by selected guidelines interventions suggested by guidelines and interventions suggested by guidelines.

5.7.1 Recommended time for screening

Although all the selected guidelines recommended screening for perinatal depression in the perinatal period, there were substantial differences in the timing of screening for perinatal depression. Three guidelines preferred that screening should be done during the first antenatal contact and repeated at least once later in the pregnancy: *Mental Health Care in the Perinatal Period* (2017), *Antenatal and postnatal mental health clinical management and service guidance* (2018), and *Mental Health Care in the Perinatal Period. 2017 (RANZCOG) Australia and New Zealand* (2017). Although these guidelines also acknowledged time available at the first contact and the number of other assessments undertaken might limit opportunities for screening for depression, screening for depressive symptoms is recommended at the first antenatal contact and with women regarded to be at high risk. For those with previous or current depressive disorders, an enquiry about depressive symptoms should be made at each contact. It is advised to check for normal emotional changes during pregnancy that may mask depressive symptoms or be misinterpreted as depression. The NICE (2018) guideline did not specify the timing. It emphasized that the timing of screening should accommodate available resources and remaining contacts between the woman and the healthcare providers.

5.7.2 Screening instruments recommended by selected guidelines

The selected guidelines recommended different screening tools to screen for perinatal depression, and all the tools could be completed within 10 minutes. The Edinburgh Postnatal Depression Scale (EPDS) was the most widely recommended tool, followed by the Patient Health Questionnaire (PHQ-9), the Antenatal Risk Questionnaire (ANRQ), the Whooley Questions, and the Kessler Psychological Distress Scale (K-10). The two main screening tools recommended by adapted guidelines are discussed next.

5.7.2.1 Edinburgh Postnatal Depression Scale

The EPDS is a 10-item self-reported questionnaire about feelings of depression experienced in the postnatal period rated over the past seven days, with each item being graded on four exclusive scores that range from 0 to 3 to each question to indicate the intensity of depressive symptoms. The probable scores vary from 0 to 30, and higher scores indicate more symptoms

of depression (Cox, Holden & Sagovsky 1987:782-786; Lydsdottir et al 2019:47). The EPDS is short and takes about five minutes to complete. The tool was designed to screen for postnatal depression, but evidence revealed that it could be used to screen for antenatal depression and that it has higher sensitivity and specificity. In the absence of a freely available practical screening tool for anxiety disorders, questions 3, 4 and 5 of the EPDS and relevant questions from the Depression Anxiety Stress Scale (DASS) proved effective in detecting anxiety symptoms in women with perinatal depression (Smith-Nielsen, Egmoose, Wendelboe, Steinmejer Lange, & Vaever 2021:8; Stewart, Umar, Tomenson & Creed 2013:1043). This indicated that the EPDS tool could be used to screen for both depression and anxiety disorders. In this study, the researcher used the EPDS to identify potential participants. The EPDS was chosen based on the ease of application, years of proven reliability in detecting perinatal depression, availability of translation into many languages, including African languages, and cost-effectiveness in incorporating it in patient assessment.

5.7.2.2 Antenatal risk questionnaire

The ANRQ is a 12-item self-report tool which measures the main early and chronic psychosocial risk factors related to perinatal depression. It measures the following risk domains: emotional support from woman's own mother in childhood; history of depressed mood or mental illness and treatment received; perceived level of support available; partner emotional support; life stresses in previous 12 months; personality traits, perfectionist traits, and history of abuse, such as emotional, physical, and sexual (Austin, Colton, Priest, Reilly & Hadzi-Pavlovic 2013:19). Scores range from 5 to 60, with a cut-off score of 23 used to identify women at increased risk for development of depression. A score of 23 was reported to have sensitivity (0.62) and specificity (0.64) and a positive predictive value of 0.30 (Austin et al 2013:21). The tool can be administered either verbally or in writing and takes up to five minutes to complete with extra time required to explore significant matters as they arise. When compared with other tools, the ANRQ tool demonstrates good acceptability in a perinatal population as well as good acceptability among healthcare providers, mostly midwives (Austin et al 2018:582). When screening and assessment are done in conjunction with EPDS, the ANRQ becomes most useful as a key element of a screening intervention aimed at the early identification of mental health risk and morbidity across the perinatal period (Ruyak & Qeadan 2018:581).

5.7.3 Interventions suggested by guidelines

Regarding interventions, six guidelines recommended a range of psychosocial, psychological, and pharmacological therapies that have been evaluated for their effect in preventing and treating perinatal depressive symptoms. Among psychological interventions, cognitive behavioural therapy (CBT), interpersonal psychotherapy (IPT), and psychosocial support, such as non-directive counselling, including supportive listening, problem-solving and goal setting that may improve depression, are recommended. NICE guidelines suggest support groups, group therapy, yoga and individual counselling be offered to women with perinatal depression (see Chapter 3 for discussion and Annexure N, Guideline five).

5.7 Quality assessment of the guidelines

To accurately evaluate the quality of each guideline selected for this review, the Appraisal of Guidelines for Research and Evaluation Instrument (*AGREE II*) was used (Brouwers et al 2017:1). The purpose of *AGREE II* is to evaluate the quality of clinical practice guidelines and guidelines more percentage was adapted on the Namibia context. The tool has been tested for its validity and reliability (Brouwers et al 2017:1).

The *AGREE II* instrument consists of 23 items in six domains: scope and purpose of the guideline, stakeholder involvement, rigour of development, clarity and presentation, applicability, and editorial independence. The best practice guidelines for perinatal depression were rated on a 7-point Likert scale with 7 for 'strongly agree', 1 for 'strongly disagree'. According to Brouwers et al (2017:11), a score of 7 should be given when the quality of reporting is outstanding and where all criteria and considerations articulated in the *User's Manual* have been met, while a score of 1 should be given when there is lack of information that is related to the *AGREE II* item or when the concept is reported poorly. Domain scores were calculated by summing up all the scores of the individual items in a domain and by scaling the total as a percentage of the maximum possible score for that domain.

Example

Obtained score =

Sum of all item scores for all appraisers in a single domain.

Maximum possible score =

7 (strongly agree) x y (items within domain) x 4 (appraisers)

Minimum possible score =

1(strongly disagree) x y (items within domain) x 4 (appraisers) .

Scaled domain score =

Obtained score - Minimum possible score

Maximum possible score - Minimum possible score) x100

All seven guidelines were assessed or evaluated by the researcher and a trained co-worker working at the University of Namibia. The researcher trained the co-worker by discussing each criterion before starting the evaluation. Using a similar scale, the study supervisors measured the overall quality of each guideline and whether they would recommend the use of the guideline with modifications or adapt the guideline. Normal appraisal scores were calculated for each assessor by taking the average rating (1–7) for all items of one guideline. Overall average appraisal scores and standard deviations were calculated for all four appraisers for a single guideline. Finally, the guidelines with higher scores were adapted for this study. Table 4.2 presents the AGREE II domain guidelines percentages as listed in table 4.1 and according to guidelines included in the study section 4.6.1.

Table 5.2 Domain scores of the guidelines (percentages)

Agree domain	1. (COPE). 2017.	2. Department of Health. 2018. <i>Clinical Practice Guidelines:</i>	3.(RANZCO G) 2017	4.(NICE). 2018	5.Beyond blue. 2011	6. (SIGN). 2012	BC. 2014.
1. Scope and practice	97	89	94	67	92	62	44
2. Stakeholder involvement	100	79	75	91	91	75	33
3. Rigour of development	100	96	86	83	94	86	50
4. Clarity and presentation	100	95	95	82	93	75	63
5. Applicability	97	86	81	75	76	61	44
6. Editorial independence	100	79	96	86	67	33	54

5.7.1 Domain 1: Scope of purpose

The scope and purpose of the perinatal guidelines described the objectives of the guidelines, including the intent and benefit of the guidelines, and seven guidelines scored 7 on the *AGREE II* appraisal. However, the health questions in Beyondblue, SIGN, and BC Reproductive Mental Health Program & Perinatal Services were unclear.

5.7.2 Domain 2: Stakeholder involvement

For a guideline to be adapted for this study, domain 2 on stakeholder involvement was important. The six selected guidelines involved multiple stakeholders including a team of healthcare professionals, such as gynaecologist doctors, midwives, social workers, psychiatrists, lecturers, and women who had experienced a mental health problem in pregnancy or the postnatal period, and the guideline method. In addition, those involved specialities, institutions, and disciplines were described in detail. Finally, the role of everyone involved in the development process was discussed or provided in the appendices included within the guidelines. However, BC Reproductive Mental Health Program & Perinatal Services not addressed the stakeholder domain.

5.7.3 Domain 3: Rigour of development

The rigour of development referred to the thoroughness with which the guidelines were developed. According to Higgs, Jensen, Loftus and Christensen (2019:111), Clinical Practice Guidelines (CPGs) should have an inclusive approach section that outlines a comprehensive process by which the relevant evidence is identified, organized, judgmentally appraised to detect bias and transparently summarized into recommendations. Most guidelines were based on a systematic review. The clear link between the recommendations and evidence was stated in most guidelines, the external peer review process was explained, and the procedure and date for updating the guideline were described. However, domain 3 was not addressed in the BC guideline, and the method of assessing the risk of bias in the included studies was not stated.

5.7.4 Domain 4: Clarity of presentation

The selected guidelines consisted of clear and concise key recommendations that included specific details about the purpose and determined the population for whom the key recommendations were envisioned. The key recommendations were easily identifiable in some guidelines, with different methods taken to highlight them. Some guidelines included an executive or plain language summary with bold headings and concisely written statements that users could refer to without scrutinising pages of information.

5.7.5 Domain 5: Applicability

Domain 5 was one of the domains effectively addressed across most of the guidelines, with only one guideline, the BC guideline, which not addressed this domain. The guidelines discussed barriers specific to implementing the guidelines. In most guidelines, the potential cost implications of applying the recommendations have been considered. NICE delivered

support resources on their website about how best to use guidelines in clinical practice, how guidelines can assist patient outcomes, and how to overcome the challenges related to behaviour change.

5.7.6 Domain 6: Editorial independence

Six guidelines addressed this domain effectively. However, the SIGN guidelines did not state where the funding was obtained to help develop or update the guidelines. These guidelines thoroughly described whether any individuals involved in the guideline development process had a conflict of interest, what the conflict of interest was, and how the conflict was reported. The SIGN remaining guideline that did not effectively address domain six failed to thoroughly describe whether funding was obtained, who funded the process, and whether the funding source predisposed the guideline development process in any way. While some guidelines acknowledged that individuals involved in the guideline development process had conflicts of interest, little detail was provided on the conflicts and how they were solved.

5.8 Selected guidelines for adaptation on the Namibia context.

Centre of Perinatal Excellence (COPE). 2017. *Effective mental health care in the perinatal period: Australian clinical practice guidelines were selected to be adapted on the Namibia context*. The selected guidelines were evaluated according to the *AGREE II* instrument in six domains: scope and purpose of the guideline, stakeholder involvement, rigour of development, clarity and presentation, applicability, and editorial independence. The selected guidelines scored more 70% as its development was based on all six domains of *AGREE II* and scored 100 on domain 3 (Rigour of development). *AGREE II* lacks a clear cut-off point to differentiate between high- and low-quality clinical practice guideline CPGs. According to Brouwers et al (2017:10), thresholds could be created based on scores for the prioritized domain and high quality guidelines are those with a domain 3 score of >70%. In this study the researcher did not include a specific cut-off, but adapted COPE (2017) guideline which scored 100% on domain 3 (rigour of development). The reason for focusing more on domain 3 was that this domain shows evidence of a quality guideline development. A high score in this domain signified minimum bias and evidence-based guideline development (Cassis, Cortès-Saladelafont, Molero-Luis, Yubero, González, Ormazabal, Fons et al 2015:14). This implied that a low score showed methodological problems, such as a deficiency of methodological expertise in guideline developing teams or a poor systematic search due to a lack of resources, see section 4.11. The guideline was also suitable for the indigenous population, which shows characteristics similar to the Namibian population.

5.9 Validity and reliability

The validity of the systematic review was assured using the *AGREE II* tool, a valid, reliable instrument. The researcher applied the process of conducting the systematic review described by Aromataris and Pearson (2014:48) and the PRISMA flow chart (2020). The researcher applied rigorous validity measures to ensure the representativeness of the literature reviewed by appraising all the sources. Bias was decreased by using various electronic databases for literature retrieval, and journal articles and their reference lists were also used to retrieve literature. Reliability was maintained by ensuring consistency in the selection of literature by adherence to predetermined inclusion criteria. The researcher's supervisors, an expert in midwifery science and an expert in mental health, were involved in the systematic review to ensure the accuracy and reliability of the selected guidelines. Using *AGREE II* tool and a similar scale 7-point Likert scale with 7 for 'strongly agree', 1 for 'strongly disagree' the study supervisors measured the overall quality of each guideline. To check whether they would recommend the use of the guideline with modifications or adapt the guideline.

5.10 Data analysis

A simple descriptive evaluation of each study was presented in tabular format on table 4.1. The table included the country, year of publication, population under study, interventions, and tool recommended to screen for perinatal depression. Another descriptive table 4.2 was presented with *AGREE II* domain scores.

5.10 Adaptation of the selected guidelines on the Namibia context

Adaptation of Centre of perinatal Excellence (COPE). 2017. Effective mental health care in the perinatal period: Australian clinical practice guidelines, to the Namibia context. To adapt the guidelines to the Namibian context, the researcher followed the *South African Guideline Evaluation (SAGE) Clinical Practice Guideline Development Framework* which has a foundation of transparent evidence synthesis processes (Dizon et al 2016:5). The framework is divided into three tiers: clinical contexts, expert inputs, and end-user guidance documents. The contextualisation method followed the following steps:

1. The researcher conducted a qualitative study to explore and describe the experiences and needs of women with perinatal depressive symptoms and healthcare providers' experiences of working with women with perinatal depression in Namibia.
2. The researcher conducted a systematic review to identify existing guidelines on the management of perinatal depression globally. The included perinatal guidelines were appraised using (*AGREE II* tool). Only one perinatal guideline with a high-quality methodology was adapted.

3. The researcher used a formal consensus process through an NGT in which a multidisciplinary team of stakeholders drafted the proposed recommendations and endorsed them as relevant for the local primary care context. The NGT participants developed specific criteria (context and practice points) using the framework of contextual factors to enhance the recommendations' implementability. There was a need for major adaptation in screening and recommendations to reduce practical barriers, improve access, and enhance feasibility and acceptability. The recommendations were aligned with a typical women's journey as extracted from the qualitative data. There was a need for major adaptation mostly on Tier 2 concerning screening and recommendations. This was delivered from stakeholders inputs gathered using robust quantitative and qualitative research through a Nominal group technique. For instance, the selected guidelines, the Centre of Perinatal Excellence (COPE, 2017) recommended screening during the first antenatal visit, however, it also recognized that the time available and various assessments undertaken may limit opportunities for assessment of mental health. Stakeholders participated in this study recommended that screening and assessment of psychosocial risk factors should be done during the second antenatal contact because there were already many assessments to be done during the first contact. Screening and assessment should be done at the 2nd contact. Assessment and screening should be repeated at the 6th contact around 36 gestational weeks. Women should be screened and assessed once after delivery, at 6 weeks using the ANRQ and EPDS.

This form of adaptation was done to reduce practical barriers and improve access, enhance feasibility and acceptability; for example, flexibility in scheduling screening, delivering the treatment conveniently within the setting and including family members on management of perinatal depression. The adaptation process was also considered to ensure that the final recommendations address specific health questions relevant to the Namibian context of use, the needs of women with or at risk of perinatal depression, priorities, legislation, policies, and resources without undermining the validity of the target recommendations (Dizon et al 2016:5). To retain fidelity to evidence-based management, the essential intervention components were maintained while other changes were made to ensure acceptability.

4. A panel of expert participants did a refinement of the guidelines through the NGT. This ensured that perinatal guidelines recommendations were relevant to the local context and resources and that adaptation made the guidelines appropriate to the Namibian

context and accommodated resources. This concurred with Chowdhary et al (2014:124) finding that the most common cultural adaptations of treatments for depression were to language, context, and the person delivering the treatment rather than to core intervention content.

5.11 Discussion

Developing evidence-based guidelines is imperative to improve the quality of care provided to women during the perinatal period and reduce maternal morbidity and mortality in low- and middle-income countries (Verschueren et al 2019:2). According to Haran, van Driel, Mitchell and Brodribb (2014:2), in the primary care of women and infants after childbirth, evidence-based guidelines have the potential to improve care and lessen medium- and long-term morbidity and mortality. Evidence-based clinical practice guidelines are likely to positively influence the early identification and management of perinatal depression (Haran et al 2014:2). Thus, guidelines can potentially mitigate subsequently improved health outcomes for both mother and baby. Therefore a main strategy to get effective interventions into routine clinical practice is to develop (adapt) and implement cultural and contextual evidence-based systematic reviews of already developed guidelines (Stokes, Shaw, Camosso-Stefinovic, Imamura, Kanguru & Hussein 2016:7). Systematic reviews are widely recognised as an efficient, reliable and wide-ranging source of evidence for decision-making and few systematic reviews have regarded effects on health equity (Welch, Petticrew, O'Neill, Waters, Armstrong, Bhutta, Francis et al 2013:1). Accordingly, the present systematic review provided an overview of the quality and content of evidence-based perinatal guidelines regarding the identification and management of perinatal depression that could be adapted to the Namibian context. The researcher reviewed seven guidelines from four countries, most from Australia.

Australia developed perinatal clinical guidelines because the country mandated universal antenatal screening of pregnant women with the Edinburgh Postnatal Depression Scale (EPDS) since 2011 (San Martin Porter, Betts, Kisely, Pecoraro & Alati 2019:32). In the United States of America, universal perinatal screening is not mandatory although recommended by the American College of Obstetrics and Gynaecology (ACOG, 2018). In most middle-income countries, there is a gap in maternal mental health as screening for perinatal depression is not yet considered part of perinatal care (McCauley, Brown, Ofosu & van den Broek 2019:2).

Of the selected guidelines, the Centre of Perinatal Excellence (COPE, 2017) *Effective mental health care in the perinatal period: Australian Clinical Practice Guidelines* scored the most. The researcher, therefore decided to adapt these guidelines to the Namibian context because

of the detailed, clear recommendations that support screening and management for perinatal depression.

The COPE (2027) guideline suggested timing screening for perinatal depression. Considering available resources and existing contacts between the women and the health professionals. The first antenatal screening should be completed as early as possible and should be repeated at least once later in pregnancy (Austin & Highet 2017:28). Women should also be screened for postnatal depression around 6–12 weeks after birth and repeat screening at least once in the first postnatal year. The COPE, 2017 recommended screening of perinatal depression using EPDS. For a woman with an EPDS score between 10 and 12, monitor and repeat the EPDS in 2–4 weeks as the score may increase subsequently. If clinically indicated, the EPDS must be repeated at any time in pregnancy and in the first postnatal year (Austin & Highet 2017:28).

The systematic literature review also found that the EPDS depression screening tool is recommended by the selected guidelines to screen for perinatal depression. The guidelines emphasized that assessment of the screening tool for perinatal depression should include consideration of sensitivity of the proportion of people with the condition who have a positive result, true positive rate, and specificity (the proportion of people without the condition who have a negative result; true negative rate). It puts the rate of sensitivity and specificity at high >0.90; moderate 0.70–0.90 and low <0.70 (Austin & Highet 2017:27). The researcher therefore used the EPDS to select potential participants for the study. Screening must be coupled with policies that build patient, provider, cultural aspects, and practice-level capacity to address the depression (Byatt, Levin, Ziedonis, Simas & Allison 2015:1050).

Although designed to screen for postnatal depression, the EPDS was found suitable for antenatal depression and to have higher sensitivity and specificity. The EPDS was found to have acceptable sensitivities or specificities and level of accuracy in perinatal clinics in low-resource settings, including (Se) 68%, (Sp) 88% and Area under curve (AUCs) 0.85 (Chorwe-Sungani & Chipps 2017:103). The EPDS was also validated in Uganda, Malawi, and other African settings, where it yielded good results (Natamba, Achan, Arbach et al, 2014; Stewart, Umar, Tomenson & Creed 2013; Tsai, Scott, Hung, Zhu & Matthews, 2013).

The COPE (2017) guideline indicated that in addition to screening for symptoms of depression, psychosocial risk factors should also be assessed. Psychosocial assessment permits the identification of past and present circumstances that could affect a woman's mental health (Austin & Highet 2017:31). Various psychosocial risk factors influence or trigger perinatal depression, including poverty, gender-based violence, low social support, and life stress.

Significant associated factors of depressive symptoms were divorce, low family income, financial insufficiency, extended family, history of previous abuse, previous abortion, previous pregnancy complications, maternal anxiety or fear of birth outcomes, current alcohol use, current tobacco use, current substance abuse, marital conflict, poor relationships with fathers and family conflicts (Tuksanawes, Kaewkiattikun & Kerdcharoen, 2020:857; Chorwe-Sungani & Chipps 2018:4; Massae, Larsson, Leshabari, Mbekenga Pembe, & Svanberg 2021:6). The current study findings indicated that all these risk factors were prevalent. Accordingly, these complex risk factors would need a coordinated multidisciplinary method for the women's care plan (Austin & Highet 2017:31).

The Cope (2017) guideline suggested assessment for psychosocial factors during the antenatal and postnatal period, using validated tools that have moderate to high-quality evidence, including the Antenatal Psychosocial Health Assessment (ALPHA), the Ante Natal Risk Questionnaire (ANRQ) and the Pregnancy Risk Questionnaire (PRQ) (Austin & Highet 2017:31). The ANRQ is a 13-item structured questionnaire with categorical (yes/no) and dimensional (1 to 5) responses, which produces a total psychosocial risk score increasing risk as well as recognizing specific risk factors that independently put the woman at greater psychosocial risk, such as a past history of trauma or significant mental health condition. The ANRQ includes relationships with partners, social support, recent stressful life events, anxiety or perfectionism, history of depression or other mental health conditions and treatment for some conditions, having experienced abuse as a child or as an adult, and quality of relationship with mothers in childhood. The ANRQ has an acceptable technical performance in detecting women at higher risk of postnatal depression of 6.3, (95% CI 3.5 to 11.5; sensitivity 0.62; specificity 0.64; positive predictive value 0.3; negative predictive value 0.87) and has a positive effect on rates of referral for mental health assessment moderate quality (Austin & Highet 2017:31).

Although the study did not screen for psychosocial risk factors, the researcher believed it was vital to adapt guidelines addressing and screening tools for psychosocial risk factors so that healthcare providers in Namibia could learn how to screen for them. The study found that interpersonal factors such as gender-based violence and paternity denial were major risk factors that triggered perinatal depression among women. The number and type of psychosocial risk factors identified influence the care pathway, with more approaches or interventions needed to support women who experience multiple psychosocial factors. Therefore, there is also a need to screen for psychosocial risk factors in Namibia.

The COPE (2017) guideline and ANRQ also recommend providing psychological interventions. Psychological interventions found acceptable and feasible in low- and middle-income countries include psychoeducation, interpersonal psychotherapy, problem-solving approach, cognitive behavioural therapy, and parenting education to increase knowledge on maternal mental health among perinatal women (Rahman et al 2013:598; Evans, Ingram, Law, Taylor, Glynn, Hopley, Kessler et al 2021:18; Gureje et al 2019:533; Gao, Xie, Yang & Chan 2015:28) (see discussion in chapter 3). These interventions focus on coping, problem-solving and decision-making skills; recognising distress and seeking help; cognitive restructuring; and psychosocial issues associated with parenthood (Austin & Highet 2017:40).

The COPE (2017) guideline also recommended the use of pharmacological treatment and continuing psychosocial support, possibly psychological therapy, for medications to be effective for women with moderate to severe symptoms (Austin & Highet 2017:37). Due to the limited scope of this study, the researcher did not discuss the use of medication during the perinatal period in further detail. The researcher found that the COPE (2017) guideline has clear referral pathways, which should depend on the setting and the access to services available in a specific area, such as if a woman is referred from a rural and remote setting where mental health services might not be locally available and waiting times could be long. In such cases or settings, healthcare providers should seek advice from mental health specialists before referring the woman (Austin & Highet 2017:39). Whatever pathway is chosen; there is a need for documentation, coordinated care and inter-professional communication as well as clear communication with the woman and her significant other.

The researcher's last consideration was that the COPE (2017) guideline was developed to accommodate the Aboriginal and Torres Strait Islander women who live in Australia. Aboriginal and Torres Strait Islander people are often confronted with complex presentations, such as mental health problems, cultural disconnect, and multiple stressors in the form of poverty or poor housing, child removal, as well as trauma, abuse, and loss (Austin & Highet 2017:21). The researcher believes that the context of this population has similar characteristics with most low- and middle-income countries, including Namibia. To improve their mental health social and emotional well-being, a programme designed to deliver effective services included indigenous definitions of health and wellbeing as holistic, underscored by connections to culture, family, community, and country (Austin & Highet 2017:21), which was the aim of the study.

In this context, the COPE (2017) guideline emerged as the most suitable perinatal guideline to be adapted to the Namibia context.

5.11 CONCLUSION

This chapter discussed the systematic literature review conducted for the study. The review suggested that the COPE (2017) guideline, Mental Health Care in the Perinatal Period, could be adapted to Namibia settings because its development was based on all six domains of AGREE II. The guideline was also suitable for the indigenous population, which shows characteristics similar to the Namibian population. The guidelines showed that screening for perinatal depression and other psychosocial conditions could help in identifying women with or at risk of perinatal depression and offer management and referral when required. Chapter 5 discusses the guidelines development.

CHAPTER 6 PHASE 3: DEVELOPMENT OF DRAFT GUIDELINES TO MANAGE PERINATAL DEPRESSION

6.1 Introduction

Chapter 4 discussed the findings of the systematic literature review on guidelines to manage perinatal depression that could be adapted to the Namibian context. This chapter discusses phase 3: Development of the draft guidelines. The researcher integrated the findings from Phase 1, and the systematic literature review in Phase 2, and the draft guidelines were developed during an NGT with stakeholders. The guiding attributes to ensure rigour during the guideline development process are discussed, and the draft guidelines are presented at the end of the chapter.

A one-day NGT workshop was held with 12 stakeholders to generate ideas and reach a consensus on what guidelines to manage perinatal depression should entail. The process included presenting the empirical findings and reaching a consensus on the draft guidelines.

6.2 NGT participants' sociodemographic profile

Of the participants, five were registered nurses and midwives, two were nursing managers, two were doctors, and one was a social worker who worked in the public sector in government maternity hospitals and clinics. Two participants were educators or lecturers in the University of Namibia's midwifery department. All the participants had over five years of experience in perinatal care in the Namibian framework. Figure 6.1 presents the participants' professional categories. Of the participants, two were between 25 and 30 years old; two were between 31 and 35; three were between 36 and 40; two were between 41 and 45; and three were over 46. Figure 6.2 presents the participants' age groups.

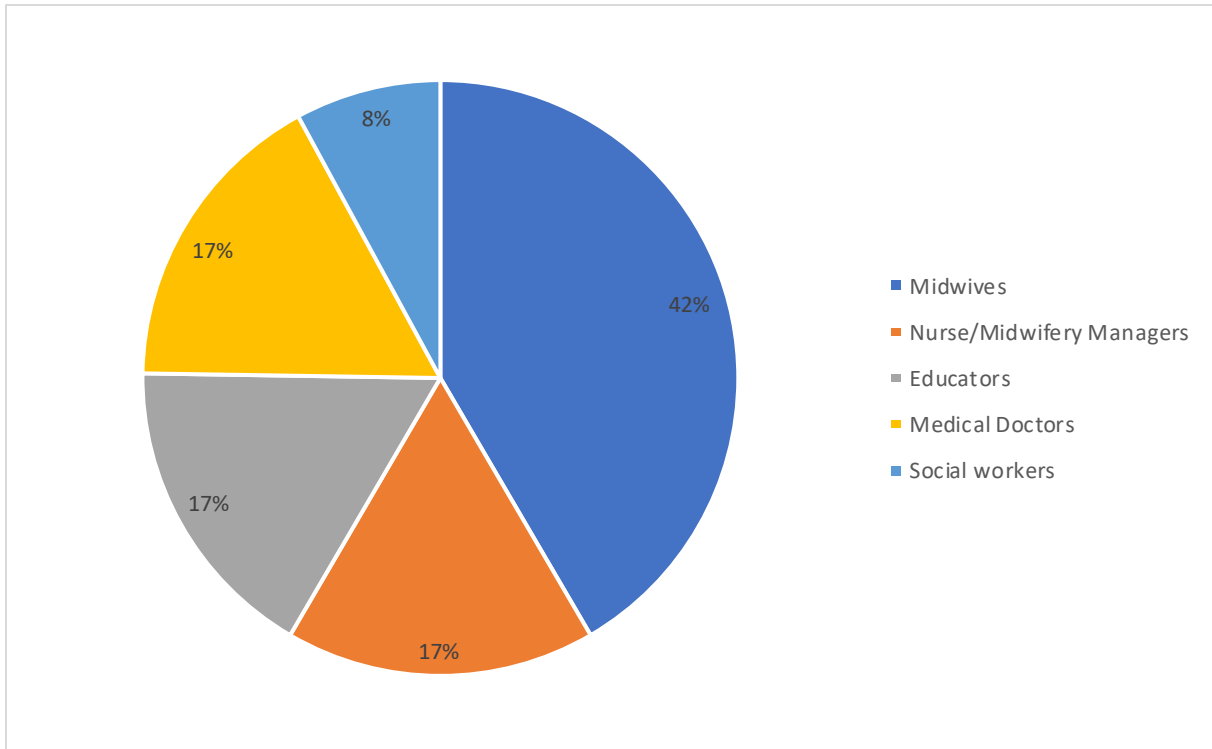


Figure 6.4 Participants' professional categories (n=12)

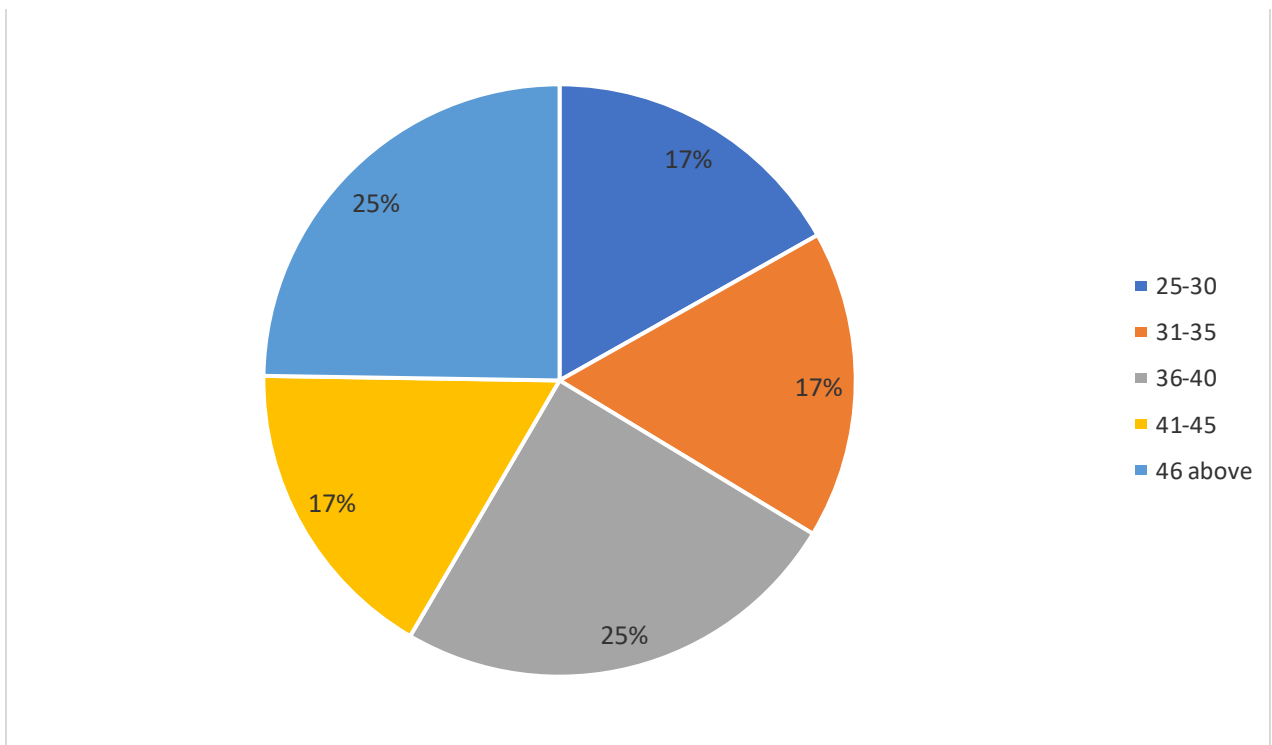


Figure 6.5 Nominal group participants' age groups (n=12)

Four of the midwives held a Bachelor of Nursing and clinical honours degree, and one held a diploma in nursing and midwifery. All had more than five years of experience. The nurse and

midwifery managers held comprehensive diplomas and advanced degrees in nursing management and 25 years of experience. Of the two educators and lecturers, one held a doctorate of philosophy and had 25 years of experience, and the other held a master's degree and had 15 years of experience. Medical doctors held bachelor's degrees in medicine and surgery; one had 10 years of experience, and the other had 15 years of experience. The social worker had a bachelor's degree and five years of experience. Table 5.1 lists the participants' qualifications and years of experience.

Table 6.1 Participants' qualifications and years of experience

Participants	Number	Qualifications	Years of experience
Midwives	5	Bachelor's in nursing and clinical honours (4) and diploma (1)	Over 5
Nurse/Midwifery managers	2	Comprehensive diploma in nursing and advanced degree in nursing management	25
Educators	2	Doctor in philosophy (1) and master's degree (1)	25, 15
Medical doctors	2	Bachelor's degree in medicine	10, 15
Social worker	1	Bachelor's degree	5
Total	12		

6.3 Findings of the NGT

The findings of the NGT are based on answers to the following questions. (1) participants views on the importance of developing guidelines to manage perinatal depression (2) what the guidelines should entail? (3), type of guidelines to manage perinatal depression? and what about the acceptability and feasibility of the guidelines?

Seven themes with sub-themes emerged (see Table 5.2).

Table 6.2 Themes and sub-themes

Themes	Sub-themes
1. Rationale for developing guidelines to manage perinatal depression	<ul style="list-style-type: none"> • Early detection and management of perinatal depression
2. Prerequisites before screening for perinatal depression	<ul style="list-style-type: none"> • Informed consent • Confidentiality • Involvement of family members in screening for depression. • Follow-up visits <p>Policy formulation</p>
3. Screening for perinatal depression using a validated tool	<ul style="list-style-type: none"> • Valid tool to screen for perinatal depression • Timing of screening • Allocation of scores and retesting
4. Integrating psychosocial assessment and screening into perinatal care	<ul style="list-style-type: none"> • Assessing women with or at risk of psychosocial factors

	<ul style="list-style-type: none"> • Incorporating screening for depression and assessment of psychosocial risk factors into perinatal care • Creating awareness on psychosocial risk factors
5. Culturally appropriate screening and assessment	<ul style="list-style-type: none"> • Culturally appropriate tools
6. Management of perinatal depression	<ul style="list-style-type: none"> • Psychosocial management/interventions
7. Outline clear referral care pathways	<ul style="list-style-type: none"> • Referral of severe depression
8. Management of suicide risk	<ul style="list-style-type: none"> • Assessing the risk of suicide • Managing identified risk of suicide
9. Acceptability and feasibility of guidelines and the interventions	<ul style="list-style-type: none"> • Provide adequate resources
10. Guidelines for screening for perinatal depression and assessment of psychosocial risk factors	<ul style="list-style-type: none"> • Screening for perinatal depression once at 6 weeks after delivery, using validated tool • Assessment of psychosocial risk factors once at 6 weeks, using validated tool

The themes and sub-themes are discussed next with summary of the group's discussions. The participants were divided into three groups and their identities kept anonymous. The participants were referred to by their group number, for example Group 1, Group 2, and Group 3, respectively.

6.3.1 Theme 1: Rationale for developing guidelines to manage perinatal depression

The first theme that emerged during data analysis was the rationale for developing guidelines to manage perinatal depression. One sub-theme emerged namely, early detection and management of perinatal depression.

6.3.1.1 Early detection and management of perinatal depression

According to the participants, developing guidelines is of paramount importance because it would provide for early detection and management of perinatal depression. It would also offer a systematic, uniform method for preventing severe depression, and improve maternal mental health in Namibia. According to participants:

Group 1: Guidelines would provide a systematic and uniform method for early detection and management of perinatal depression. Guidelines would improve management of women with depression.

Group 2: Guidelines would provide a systematic and uniform method for early detection and management of perinatal depression. Guidelines would assist in preventing severe depression, and consequences of undetected and untreated perinatal depression.

Group 3: Guidelines would help to improve maternal mental health in the country [Namibia], thus we would have healthier mothers and infants.

6.3.2 Theme 2: Prerequisites before screening for perinatal depression

Before commencing screening, a good healthcare system needs to be in place to ensure that appropriate healthcare providers are available to provide the required perinatal mental health care (Austin & Hight 2017:21). Women's safety needs to be secured before revealing personal information; therefore consideration should be given to other people who may be present. Five sub-themes emerged from the prerequisites, namely informed consent, confidentiality, involvement of family members in the screening for depression, follow-up visits, and policy formulation.

6.3. 2. 1 Informed consent

According to the participants, patients should be given an explanation of the purpose of screening before it takes place. Screening for perinatal depression should be part of routine perinatal care. They stressed further that consent can be integrated with consent processes for existing routine perinatal care procedures. If a woman does not consent to screening, this should be documented, and screening offered at subsequent consultations. According to participants:

Group 1: An explanation of the purpose of screening should be given before screening takes place.

Group 2: Women should be informed on available healthcare support and options and for any women who refused to be screened, it could be done with next visits.

Group 3: Consent should be integrated with already existing perinatal care'

6.3.2.2 Confidentiality

The participants pointed out the need to inform women that screening is part of routine perinatal care and results would remain confidential. Although the presence of significant others is often useful, sensitivity is needed about whether it is appropriate to continue with screening and psychosocial assessment while they are in the room. Information will only be shared with others if there is a risk of suicide. The participants believed that when women are provided with the necessary information regarding confidentiality, a non-judgemental caring environment and the availability of space for privacy, they will be more willing to reveal personal information. According to participants:

Group1: A non-judgemental, caring, and confidential relationship between health care providers and patients is crucial for successful screening.

Group 2: Women should be informed that screening is part of routine perinatal care and results will remain confidential, except in cases where there is a perceived risk of harm to the woman or her baby.

Group3: There should be enough rooms for screening and when screening is done, no one should be listening apart from the health care provider. This would ensure privacy and confidentiality at the same time.

6.3.2.3 Involvement of family members in screening for depression

The participants stated the importance of family involvement in managing women diagnosed with perinatal depression. The participants also believed that when family members were involved, they would provide solid support and these women would have the opportunity to recover. Healthcare providers should involve families constantly across the perinatal period and consider a partner-inclusive intervention to lower the risk of perinatal depression. According to participants:

Group 1: Healthcare providers cannot manage perinatal depression alone; families need to be involved.

Group 2: We should consider the other way of managing perinatal depression involving the family. Maybe the family members provide the most solid support in a woman's social network.

Group 3: Family involvement should be considered the key target for interventions aiming to decrease the prevalence of perinatal depression.

6.3.2.4 Follow-up visits

The participants believed that when follow-up visits are initiated, the women may be able to improve. The participants supported the establishment of follow-up visits for women diagnosed with perinatal depression as they believed it would help to improve women's mental well-being. They also expressed concern that financial stressors, such as lack of transport, may hinder the provision of follow-ups. In low- and middle-income countries, follow-up or home visits improved women's emotional health during the perinatal period (Gajaria & Ravindran 2018:117). The participants suggested that the government should provide transport for healthcare providers to do follow-up visits.

Group1: Establishing a follow-up visits programme for women diagnosed with perinatal depression would help to improve women's mental well-being. Government should address transportation for follow-up visits at home and in the community.

Group 2: Ensuring follow-up visits occur at a time when women or their families do not have to work. Follow-up visits or consultations should be in conjunction with programme development and delivery.

Group 3: Follow-ups should be in communities and provided in non-medical settings. Steps should be taken to address social determinants of health, such as illiteracy, to promote full engagement in interventions. Ensuring non-verbal materials are used during follow-up visits in communities with high rates of illiteracy.

6.3.2.5 Policy formulation

The participants indicated that there is a need to formulate policies which address perinatal mental health. The participants were of the view that when such policies are developed, it will give them direction on how to detect and manage perinatal depression. In their review, Byatt, Levin, Ziedonis, Simas and Allison (2015:1058) found that the delivery of interventions for perinatal depression could be improved through the formulation of new evidenced-based policies and legislation directed to change how perinatal care is organized. According to participants:

Group 1: Perinatal mental health policies should be highlighted in perinatal education.

Group 2: Include screening for depression in the Namibia Sexual and Reproductive Health Policy.

Group 3: Clear policies on how to detect and manage perinatal depression and supportive supervision and effective mechanisms for monitoring and evaluation should be put in place. Policies supporting screening and assessment of psychosocial risk factors are needed.

6.3.3 Theme 3: Screening for perinatal depression using a validated tool

Screening is not just administering a test but rather involves a multi-component programme; the condition being screened needs to have significant prevalence (for instance, perinatal depression), and there should be a validated and brief tool with not more than 12 items and with a 'cut-off' which identifies those who screen positive (Sutter-Dallay, Glangeaud-Freudenthal, Guedeney & Riecher-Rössler 2015:168). Three sub-themes emerged: a valid tool to screen for perinatal depression, timing of screening, and allocating the scores.

6.3.3.1 A valid tool to screen for perinatal depression

A valid tool should be able to measure what it is supposed to, and its sensitivity and specificity determine this. In contrast, the tool's reliability denotes its consistency in giving similar findings in clinical practice (Almanasreh, Moles & Chen 2019:214). The participants agreed the tool should be short and not take too long to complete. After being presented with the EPDS, all the participants agreed that during the perinatal period, women should be screened with the EPDS. According to participants:

Group 1: Women should be screened using a validated tool.

Group 2: Because perinatal clinics are busy, the tool should be short, not taking much time to complete.

Group 3: We need a short instrument that could accommodate our busy schedule and is easy to interpret.

6.3.3.2 Timing of screening

The participants suggested that the screening should be done during the second antenatal contact because there were already many assessments to be done during the first contact. They were concerned that screening at the first contact would be challenging because it would overlap with other comprehensive assessments already done at that specific contact. In addition, inadequate time would not allow for building a relationship and trust to ask probing and sensitive questions.

In addition, the participants suggested that women should be screened twice during pregnancy. According to the participants, the second antenatal contact with the women would be around 20 gestational weeks, and it might be easier to identify signs and symptoms of perinatal depression. For example, during pregnancy, somatic symptoms of pregnancy and depression may overlap: hypersomnia early in pregnancy, insomnia in later pregnancy, nausea and appetite change, poor concentration and decreased energy (Birx et al 2011:164). Normal physiological changes of pregnancy may mask the perinatal depression symptoms. Screening should be repeated at the sixth contact, around 36 gestational weeks. Screening for depression should be conducted before abdominal examinations. According to participants:

Group 1: Screening should be done during second contact around 20 gestational weeks because during the initial visit there are many assessments and should be clear policies on how to detect and manage perinatal depression.

Group 2: During screening at 20 gestational weeks, it might be easier to identify signs and symptoms of depression because most women no more experience early signs of pregnancy.

Group 3: Screening to be repeated during sixth contact around 36 gestational weeks because depression may develop during later trimester, and women may be experiencing some problems not detected at the early stage of pregnancy. Screening for depression should be conducted before abdominal examinations are done on women.

6.3.3.3 Allocating the scores and retesting

The participants were presented with findings and explained how to allocate scores. Therefore, the participants agreed that a lower cut-off of 10 should be adopted as probable depression. Women who screened more than 10 on the EPDS should be assessed after two weeks or when clinically needed. In China, Zha, Kane, Wang, Shen, Luo and Shi (2015:117) recommended considering lower cut-off scores of 10 to reduce misdiagnosis and improve screening validity. According to participants:

Group 1. Use the EPDS to screen women for a possible perinatal depressive symptom in the perinatal period, and lower cut-off of 10 should be used as probable depression.

Group 2: Women who screened more than 10 on EPDS should be assessed after 2 weeks or as needed.

Group 3: Arrange further assessment of perinatal women with an EPDS score of 13 or more.

6.3.4 Theme 4: Integrating psychosocial assessment and depression screening in primary health care

According to Austin and Kingston (2016:169), psychosocial assessment and depression screening are closely related and should be undertaken as part of one programme, ideally integrated within mainstream primary health care settings. The integration of assessment and screening should involve skilled clinical evaluation for the identification of demographic, social, psychological, and physical factors known to affect the perinatal mental health of the mother and infant, including current distress and/or depressive symptoms that may already be present in the mother (Austin & Highet 2017:38; Honikman, Van Heyningen, Field, Baron & Tomlinson 2012:1). Three sub-themes emerged, namely assessing women with or at risk of psychosocial factors, incorporating screening for depression and assessment of psychosocial risk factors into perinatal care, and creating awareness on psychosocial risk factors.

6.3.4.1 Assessing women with or at risk of psychosocial factors

The participants recognised the need to assess for psychosocial risk factors during the perinatal period concurrently. Psychosocial assessment refers to a broad inquiry that permits identification of circumstances, past and present history that influence a woman's mental health and is conducted in addition to screening for symptoms of depression (Austin & Highet 2017:31). The Antenatal Risk Questionnaire (ANRQ) tool is recommended for assessment (see chapter 4 section 4.9.5).

The participants believed that psychosocial assessment could be undertaken as part of the perinatal interview, using a structured psychosocial assessment validated tool. They suggested that all healthcare providers should ensure that women who visit the perinatal care clinic are screened for psychosocial risk factors, using a validated tool. The participants added that healthcare providers need to be trained on how to use the assessment tool. According to participants:

Group 1: All women should be assessed by their health care providers for psychosocial risk as part of their perinatal care, using a validated tool.

Group 2: The assessment of psychosocial risk factors begins with the midwife engaging the woman and enquiring about her general physical and emotional wellbeing in pregnancy and explaining the importance of psychosocial assessment as part of holistic care.

Group 3: Assessment should be done at 20 gestational weeks and be repeated during the sixth contact around 36 gestational and a cut-off score of 23 or more is endorsed. Broader psychosocial assessment, including enquiry about past mental health history, domestic violence, childhood abuse and, trauma and substance misuse – should also be undertaken in all women.

6.3.4.2 Incorporating screening for and assessment of psychosocial risk factors into perinatal care

The participants suggested that the EPDS and ANRQ tools should be added to the perinatal care passport. They expressed the need for training with clear guidelines on using and interpreting both tools with appropriate healthcare providers to undertake screening and assessment. Integrated primary care services offer an effective service that offer a holistic approach during the perinatal period (Lomonaco-Haycraft, Hyer, Tibbits, Grote, Stainback-Tracy, Ulrickson, Lieberman et al 2018:2). In addition, integrating perinatal mental health into perinatal settings improves maternal morbidity and mortality, improving perinatal mental health (Lomonaco-Haycraft et al 2018:5). Screening and assessment of psychosocial risk factors can be universal, for example, done at the same time for all women during the perinatal period. The participants stated that screening for perinatal depression and psychosocial assessment should be integrated into perinatal settings. According to participants:

Group 1: The Edinburgh Postnatal Depression Scale (EPDS), together with the ANRQ should be included in the current assessment guide. Should be added to the perinatal health passport thus would make screening and assessment easier.

Group 2: Undertake psychosocial assessment in concurrence with a tool that screens for current symptoms of perinatal depression. Ensure that health professionals receive training in the importance of screening, assessment and how to use both validated tools.

Group 3: Ensure that there are clear guidelines around the use and interpretation of the psychosocial tool/interview in terms of threshold for referral for psychosocial care and/or ongoing monitoring. A minimum set of professional competencies is required for those undertaking screening and psychosocial assessment in the primary sector.

6.3.4.3 Creating awareness of psychosocial risk factors

The participants maintained that women should be provided with the necessary information about psychosocial risk factors of perinatal depression by placing posters around clinics. They should be informed about psychosocial risk factors of perinatal depression, including gender-based violence, and then they would at least know where to seek healthcare support. In their

study of barriers to the provision and utilization of mental health services in low- and middle-income countries, Sarikhani, Bastani, Rafiee, Kavosi and Ravangard (2019:846) found that the greatest common knowledge barrier was a lack of adequate knowledge about mental health problems among patients and their families. Therefore, during the perinatal period, women should be educated on possible causes of perinatal depression. According to participants:

Group 1: Create awareness about psychosocial risk factors of perinatal depression by placing posters around clinics about psychosocial risk factors such as gender-based violence and many more. Discuss with the woman the possible impact of psychosocial risk factors (she has endorsed) on her mental health and provide information about available assistance.

Group 2: Educate all women about the possible causes of perinatal depression and the significance of enquiring about, and attending to, any mental health problems that might arise across the perinatal period.

Group 3: Create awareness by placing posters about perinatal depression around clinics. Women should be informed on available healthcare support and options.

6.3.5 Theme 5: Culturally appropriate screening and assessment

Diagnostic screening tools in perinatal care settings in Sub-Saharan Africa should be evaluated on four critical areas, namely (1) screening instrument diagnostic performance, (2) cultural appropriateness, (3) acceptability, adaptation and feasibility, and (4) ease of implementation and implications for widespread perinatal depression screening (Larsen et al 2021:5-6). A study on social and emotional well-being screening for Aboriginal and Torres Strait Islanders found that although there were several culturally developed and adapted screening tools available, there were challenges for healthcare providers to practise a culturally competent screening process (Langham, McCalman, Matthews, Bainbridge, Nattabi, Kinchin, & Bailie 2017:6). The challenges included training on the relevance and need for culturally safe assessments; not depending on a single measure; using contextualising, reflective documentation based on interview and observation, and reporting results using cultural explanations that avoid mental health labelling (Langham et al 2017:6). One sub-theme emerged, namely culturally appropriate tools.

6.3.5.1 Culturally appropriate tools

The use of a Western-derived tool to assess perinatal depression in a different cultural context is not invalid, given the fact that many symptoms of depression are universal (Tsai et al 2013:5). According to Kotz, Marriott and Reed (2021:e134), healthcare providers should reflect on the significance of a contextualised and culturally safe instrument to support

distressed women. There is a strong need for researchers to develop, refine and rigorously evaluate the predictive validity and reliability of perinatal depression assessment tools in the low and middle incomes countries (Gelaye 2016:9). Validity is required to capture the subjective phenomena and to control for known sources of error, thus assist in the development, implementation, and assessment of required interventions (Almanasreh et al 2019:214). Meaning a valid tool should have an ability to measure what it is supposed to measure. This is determined by its Sensitivity (Se) and specificity (Sp) while the reliability of the tool denotes its consistency to give similar findings in the clinical practice (Almanasreh et al 2019:214). The sensitivity of a screening tool refers to its ability to identify all people who have a condition PPV (true positives) while specificity refers to its ability to identify people who do not have a condition NPV (true negatives) (Trevethan, 2017:4). It is of key importance that healthcare providers use valid and reliable screening tools to effectively detect, treat and refer pregnant women with perinatal depression.

Moreover, urgent work is needed to develop and evaluate culturally meaningful screening tools that can predict risks for social and emotional wellbeing and perinatal mental distress in this context (Kotz, Marriott & Reed 2021:e134). The screening tools performance might vary between settings. According to Maselko et al (2018:9) validity and reliability of screening tools assisting in detecting depressive symptoms during perinatal is much needed in low and middle income settings.

In this study the researcher realized the need for more validation studies on the instruments for screening perinatal depression. More qualitative research is required to adequately characterize local understandings of perinatal depression-like syndromes in the Namibian context. For tools to be culturally sensitive, the participants suggested that tools should be translated and validated into the five local languages mostly spoken in Namibia. The participants agreed that the screening tool should be translated into five local languages, including Afrikaans, Otjiherero, Oshiwambo, Rukwangali and Lozi. According to participants:

Group 1: Culturally sensitive and effective screening for ethnic women becomes priority.

Group 2: Consider translation for those women who do not understand other languages including English.

Group 3: The screening tool should be translated into five different local languages, namely Afrikaans, Otjiherero, Oshiwambo, Rukwangali and Lozi, and consider language and cultural appropriateness of this tool used to assess psychosocial risk factors.

6.3.6 Theme 6: Management of perinatal depression

Perinatal mental health care is a three-stage process: screening and psychosocial assessment, management, and referral (Hirshler, Gemmill & Milgrom 2021:44). An integrated approach that connects screening and psychosocial assessment findings to a defined referral process and treatment could enhance management accessibility, completion, and response. This, in turn, would result in a more clinically and cost-effective way of managing perinatal depression (Hirshler et al 2021:44). For this guideline, psychosocial interventions include all psychological, social, emotional, cultural, and spiritual aspects of health and well-being. Most guidelines recommend that psychosocial treatment be considered as initial treatment for mild to moderate depression during the perinatal period (Hirshler et al 2021:45).

When a woman is diagnosed with perinatal depression, the next step is choosing the appropriate management approach that is likely to result in a reduction of depressive symptoms. A range of psychoeducational interventions has been evaluated for their effectiveness in preventing and treating depressive disorders in the perinatal period (Rahman et al 2013:598). Integrating psychosocial interventions into perinatal care in low- and middle-income countries has proved efficient, feasible, sustainable, and acceptable in lessening the signs and symptoms of perinatal depression (Nyatsanza et al 2016:9; Kathree 2020:166; Lomonaco-Haycraft, et al 2018:8). One sub-theme emerged: psychosocial management and interventions.

6.3.6.1 Psychosocial management and interventions

Most of the participants were only aware of direct counselling as a psychosocial intervention used for women going through social issues related to perinatal depression. The participants revealed the need to provide psychosocial interventions for women diagnosed with mild, moderate, and severe perinatal depression. A systematic review of interventions for common perinatal mental disorders in women in eight low- and middle-income countries identified that educational interventions, such as psychoeducation, interpersonal psychotherapy, problem-solving approach, cognitive behavioural therapy, and parenting education, increased knowledge on maternal mental health (Rahman et al 2013:598). In Nigeria, Gureje et al (2019:535) found that high-intensity interventions for perinatal depression delivered by non-specialist primary maternal care providers were feasible, acceptable and effective in enhancing community knowledge about maternal depression. According to participants:

<p>Group 1: Healthcare providers should provide psychosocial interventions for those women diagnosed with perinatal depression.</p>
--

Group 2: Women with mild to moderate and severe depression should be provided with psychoeducation, such as direct counselling and others.

Group 3: Currently we are only aware of direct counselling, but all these psychosocial interventions are needed to improve the mental well-being of women diagnosed with perinatal depression.

6.3.7 Theme 7: Outline clear referral care pathways

The overall principles for referral are the same in all settings. However, referral pathways would depend on the setting and the access to services available in the specific area. In rural and remote settings, mental health services might not be locally available and waiting times could be long. In such cases, advice may need to be sought from a general practitioner, visiting psychiatrist, or mental health support line, for example, from a social worker (Austin & Highet 2017:39). One sub-theme emerged, namely referral of severe depression.

6.3.7.1 Referral of severe depression

The participants expressed the need to identify other healthcare providers from whom they could seek advice or support before referral, such as mental health specialists, regarding mental health care in the perinatal period. For screening to be successful in the identification of women with severe perinatal depression, positive screening results require timely intervention, proper treatment, and referral (Xue, Cheng, Xu, Jin & Gong 2020:1). The participants indicated the need to establish clear referral pathways for women with severe depression. According to participants:

Group 1: There should be healthcare providers identified to accompany women if there are concerns for the safety of the woman and foetus or infant.

Group 2: Identify of other healthcare providers from whom you can seek advice before referral, such as psychiatrists and psychologists, and all coordinated care should be recorded.

Group 3: There should be clear referral pathways on how to refer a woman with severe depression from rural and urban settings.

6.3.8 Theme 8: Management of suicide risk

Risk factors for perinatal suicidal ideation among women include intimate partner violence, rejection, poor social support and severe depression (Gelaye, Kajeepeta & Williams 2016:749). Perinatal suicidal ideation is a multifaceted phenomenon triggered by numerous psychosocial and neurobiological factors. According to Birx et al (2011:27), suicidal thoughts must be considered seriously. Suicidal ideations or thoughts expose the depths of hopelessness or desperation that some women experience, and calls for urgent public health

interventions. Two sub-themes emerged, namely assessing the risk of suicide and managing identified risk of suicide.

6.3.8.1 Assessing the risk of suicide

The participants believed that there should be assessment of the risk for suicide for women with disclosure of suicide ideation. Healthcare providers should enquire about the safety of the infant. Assessment of risk involves inquiring into the extent of suicidal thoughts and intent, including whether suicidal thoughts are present and how frequent and persistent they are (Austin & Highet 2017:35). The participants stated that healthcare providers should do a proper risk of suicide assessment for women with disclosure of suicidal ideation to ascertain how serious the situation is. According to participants:

- Group 1:** Identifying warning signs that indicate a woman might be at risk of imminent suicide. Establishing internal coping strategies that decrease the level of risk, for example direct counselling.
- Group 2:** Healthcare providers should do a proper risk of suicide assessment for women with disclosure of suicidal ideation to ascertain if the condition could be managed within the clinic/unit or needed to be referred.
- Group 3:** Safety of the woman and there should be risk of suicide assessment of infant safety. Locating people within the woman's network who can assist in times of need.

6.3.8.2 Managing identified risk of suicide

The participants stated that a safety plan should be prioritised based on women's responses to question 10 of the EPDS. Question 10 of the EPDS asks about suicidal thoughts/ideations. Any woman who responds "yes" to this question is considered to have severe depression. Healthcare providers need to discuss management options. The safety of the baby must also be taken into consideration, as there may be a risk of infanticide. A study in the UK found a 13.9% rate of suicide ideation during the antenatal period and 6.3% during the postnatal period (Khalifeh, Hunt, Appleby & Howard 2016:240). According to participants:

- Group 1:** Healthcare providers should refer to the mental health specialists all women who screen positive on question 10 of the EPDS and baby should be taken into consideration.
- Group 2:** There should be an immediate management for woman with disclosure of suicidal ideation
- Group 3:** Health care providers should discuss availability of support and treatment options.

6.3.9 9 Theme 9: Acceptability and feasibility of guidelines and interventions

Theme 9 focussed on the acceptability and feasibility of guidelines and interventions. Integrating psychosocial interventions and screening of mental health into perinatal care has

been found to lessen the signs and symptoms of perinatal depression (Nyatsanza, Schneider, Davies & Lund 2016:9; Kathree 2020:166; Lomonaco-Haycraft et al 2018:7). One sub-theme emerged, namely provide adequate resources.

6.3.9.1 Provide adequate resources

The participants believed that there was inadequate government capacity, readiness, and priority to screen and manage perinatal depression, which may hinder the provision of perinatal mental health services. They, therefore, suggested that the government should provide infrastructure that would allow privacy for women to reveal personal information. The participants believed that such resources would facilitate the screening and management of women with perinatal depression. The participants also thought interventions would be acceptable when healthcare providers were trained and supported and effective mechanisms, such as supervision, monitoring and evaluation, were in place. Healthcare providers' commitments and willingness to implement the interventions are required. The feasibility of these interventions mostly depends on the government's willingness to provide financial and human resources.

The participants emphasised that addressing challenges, such as human resources shortages, would assist in implementing perinatal mental health services. They also suggested that institutions of higher learning and colleges training healthcare providers should add components on perinatal mental health to their curriculum. Perinatal mental health service-related barriers include inadequate staffing of health facilities, burdensome workload for the available healthcare providers, especially midwives, and other healthcare providers who are inadequately trained in perinatal mental health (Nakku et al 2016; Bayrampour, Hapsari & Pavlovic 2018:55). According to participants:

Group 1: Additional staff to be assigned to screen for depression and government should deploy mental health specialists in perinatal clinics. Institutions of higher learning and colleges training healthcare providers should add components on screening, detecting, and managing perinatal depression in their curriculum.

Group 2: Midwives should be trained in using the screening protocol for perinatal depression properly. Staff working in perinatal clinics should be committed and willing. Transportation for mental health specialists to visit antenatal clinics.

Group 3: Supportive supervision and effective mechanisms for monitoring and evaluation are put in place. Funds and materials are needed to implement the guidelines. The guidelines should be accepted and feasible only if they receive support from the government, for example willingness of the government to provide financial and human resources.

Provide adequate space, time and stationery will be needed.

6.3.10 Theme 10: Guidelines for screening for perinatal depression and psychosocial risk factors after delivery (post-natal depression)

Antenatal depression is a predictor of postnatal depression as women with a history of antenatal depression are at an increased risk of postnatal depression (Ogbo, Eastwood, Hendry, Jalaludin et al 2018:1; Sutter-Dallay, Glangeaud-Freudenthal, Guedeney & Riecher-Rössler 2016:169). Depressive symptoms are probably common in pregnancy; they often remain undetected and get worse during the postnatal period. Therefore, the participants suggested that during the postnatal period, women should be screened for postnatal depression. Two sub-themes emerged, namely screening for perinatal depression once at six weeks after delivery, using a validated tool and assessment of psychosocial risk factors once at six weeks, using a validated tool.

6.3.10.1 Screening for perinatal depression once at six weeks after delivery, using a validated tool

The participants stated that women should be screened six weeks after delivery, including those not screened during pregnancy. All women who screened positive on question 10 of the EPDS should be referred, while those with a screening mark of 10 or more should be screened after two weeks or whenever clinically indicated. According to participants:

Group 1: Women should be screened once after delivery at 6 weeks after delivery, using a validated tool (EPDS) to accommodate those women who were not screened during pregnancy.

Group 2: Healthcare providers should refer all women who screen positive on question 10 of the EPDS to mental health specialists to mental health specialists.

Group 3: Arrange further screening for women with a score of 10 or more and should be repeated at least once after 2 weeks and whenever clinically indicated

6.3.10.2 All women should be assessed for psychosocial risk factors using a validated tool.

The participants indicated that many women live in a very stressful environment; therefore, they should be assessed for psychosocial risk factors six weeks postnatally. Women who developed perinatal depression often lived in stressful family environments where husbands and children might also have psychological problems, thus making them vulnerable to depression (Hammen 2018:8). According to participants:

Group 2: All women should be assessed for psychosocial risk factors at 6 weeks using a validated tool. (ANRQ)

Women live in very stressful environments therefore women should be assessed for psychosocial risk factors after delivery.

Group 3: Ensuring proper assessment of psychosocial risk factors to identify the underlying cause of perinatal depression and finally to know the intervention required.

6.4 Voting and ranking of themes

The last step in the NGT was the voting and ranking phase. After clarification, the researcher asked the participants to rate the themes using a 5-point Likert scale from 1 to 5 according to their importance. The most important theme was assigned a rating of 5, and the least important was assigned a rating of 1. Total scores for each theme were calculated across all participants to provide a summary score reflecting its importance and acceptance among the stakeholders. See table 6.3.

Table 6.3 List of prioritized themes ranked by participants

Rank number	Theme	Rating
1	Screening for perinatal depression, using a validated tool	36
2	Management of perinatal depression	24
3	Outline clear referral pathways	12
4	Culturally appropriate screening and assessment	10
5	Risk of suicide assessment	8
6	Prerequisites before screening and assessment during the perinatal period	6
7	Rationale for developing guidelines to manage perinatal depression	4
8	Acceptability and feasibility	4
9	Integrating screening for perinatal depression and psychosocial assessment into perinatal care	2

6.5 Conclusion

This chapter discussed the findings of the NGT, which helped the researcher to draft the proposed guidelines to manage perinatal depression in Namibia. Chapter 7 discusses the development, refinement and rating of guidelines to manage perinatal depression.

CHAPTER 7 PHASE 3: DEVELOPMENT, REFINEMENT AND RATING OF GUIDELINES TO MANAGE PERINATAL DEPRESSION

7.1 Introduction

Chapter 6 discussed the development of the draft guidelines with stakeholders in an NGT workshop. The draft guidelines were based on the findings of Phases 1 and 2. This chapter discusses the further development and refinement of the guidelines by an expert panel in an NGT. The expert panel also rated the guidelines following refinement.

7.2 Steps in the development and refinement of the guidelines

The researcher followed steps of *AGREE II* (Brouwers et al 2017) and other steps based on the study objectives. Table 6.1 shows the steps in the development of the guidelines.

Table 7.1 Steps in the development and refinement of the guidelines

Step 1	Purpose and scope of the guidelines
Step 2	Rigour in development
Step 3	Integration of the findings of phases 1, 2 and 3
Step 4	Stakeholders' involvement
Step 5	Integration of the conceptual framework and draft guidelines
Step 6	Refinement of the guidelines by experts
Step 7	Modification of the guidelines based on the experts' responses

7.2.1 Step 1: Purpose and scope of the guidelines

The purpose of the guidelines is to manage perinatal depression in Namibia. The scope of the guidelines includes the management of women diagnosed with perinatal depression and healthcare providers providing care to women with perinatal depression in Namibia.

7.2.2 Step 2: Rigour of the guidelines

Rigour is the degree to which conclusions made in a study are accurate and true (Polit & Beck 2017:558). The rigour of the guidelines' development was assured by using the steps in *AGREE II* (Brouwers et al. 2017). The evidence for the guidelines was collected from empirical data in phase 1 and a systematic literature review in phase 2.

7.2.4 Step 3: Integration phases 1, 2 and 3

The researcher integrated or merged the results using a side-by-side comparison approach or parallel database variant (Creswell & Plano-Clark 2018:87). Suggestions to address the needs (stressors and vulnerabilities) and ensure better health outcomes were also identified. Phase 1 identified two needs of women with perinatal depression, namely social and health care support needs, and health care providers' barriers that prevented assessment of perinatal depression. Phase 2 identified global guidelines to manage perinatal depression perinatal care settings. This enabled the development of preliminary draft guidelines to enable healthcare providers to manage perinatal depression in Namibia. Phase 3 developed and refined the guidelines, and rated the final guidelines. Table 7.2 and Figure 7.1 describes the integration or merging of the multi-method findings.

In Figure 7.1, the pink circle in the middle depicts the two main themes of the needs of women with perinatal depression, namely social and health care support needs. Furthermore, the pink circle illustrates the other main themes that emerged from interviews of women with perinatal depression, namely, awareness of depression, the causes and effects of depression on daily living, interpersonal factors that contribute to depression and different coping mechanisms used by women to cope with depression. The findings were refined to inform the development of guidelines tailored to the needs of women with perinatal depression in Namibia.

In figure 7.1, the light green rectangle illustrates healthcare providers' barriers that prevented the assessment of perinatal depression, namely integration of perinatal mental health into primary health care, assessment and screening. As indicated in Figure 7.1 the light green healthcare providers revealed an understanding of perinatal depression and described perinatal depression as a mental health problem occurring during pregnancy and/or after childbirth, which is very prevalent in Namibia. Several consequences associated with undetected and untreated depression and biopsychosocial factors causing perinatal depression were described as indicated in Figure 7.1 with a light green rectangle. The findings were integrated to inform the development of contextual guidelines to manage perinatal depression in Namibia.

In Figure 7.1 the light purple rectangle identified global guidelines to manage perinatal depression in perinatal care settings. In this context, the Centre of Perinatal Excellence (COPE). *Effective mental health care in the perinatal period: Australian clinical practice guidelines* (COPE 2017) emerged as the most suitable perinatal guideline to adapt to Namibia.

Concerning Phase 3, in Figure 7.1, the blue rectangles depict the development of preliminary draft guidelines. The participants explained the rationale for developing guidelines to manage perinatal depression and suggested the prerequisites needed before screening. Participants drafted the guidelines that are required to manage perinatal depression in Namibia. The participating stakeholders in the NGT reached a consensus and outlined interventions to be incorporated in the guidelines for managing perinatal depression in Namibia. Lastly, in Figure 7.1, the yellow rectangle on the edge depicts the final eight guidelines developed to manage perinatal depression in Namibia. The final guidelines were refined and rated by a group of experts.

Table 7.2 indicates the integration of Phase 1 and Phase 3 findings in greater detail. The different font colours indicate the similarities across the findings. The table shows that although the different groups of participants depicted sub-themes under different themes, most of the findings are aligned across the different groups of participants. Some findings only emerged in the interviews with women, midwives, healthcare providers or the NGT, but all the findings eventually informed the guidelines as depicted in Figure 7.2. The researcher used these different groups to obtain data across a broad spectrum of participants to ensure the guidelines are informed by healthcare users, providers and experts.

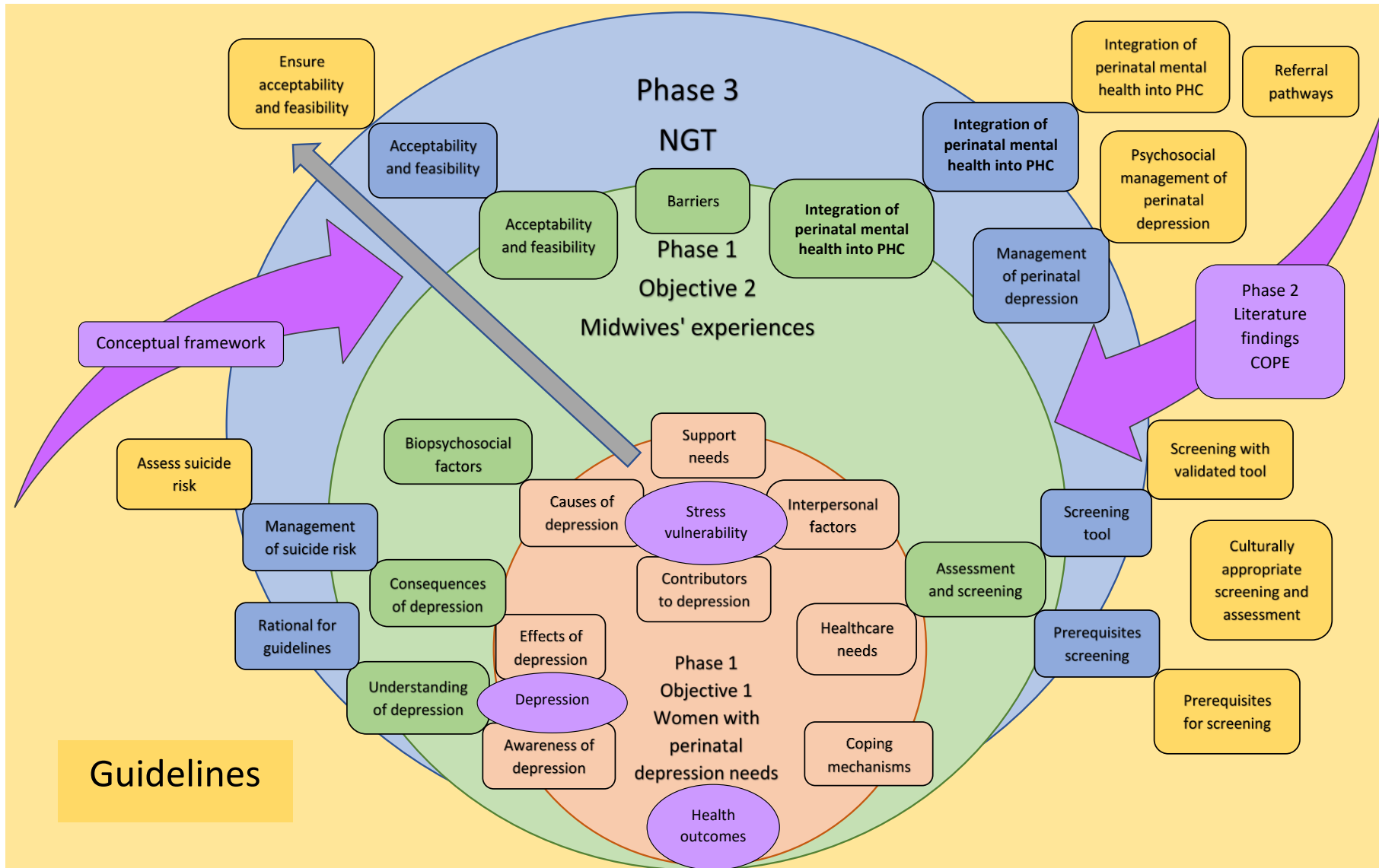


FIGURE 7.1 INTEGRATION OF MULTI-METHOD FINDINGS

7.2 INTEGRATION OF PHASES 1, 2 AND 3 FINDINGS			
Phase 1: Objective 1	Phase 1: Objective 2	Phase 2	Phase 3
Awareness of depression	Understanding of perinatal depression		
1. Manifestations of perinatal depression 2. Conceptualisation of perinatal depression 3. Suicidal ideations	1. Signs and symptoms of perinatal depression 2. Difference between perinatal depression and puerperal psychosis		
Effects of depression on activities of daily living	Consequences of undetected and untreated perinatal depression	Centre of Perinatal Excellence (COPE). 2017. <i>Effective mental health care in the perinatal period: Australian clinical practice guidelines.</i>	The rationale for developing guidelines to manage perinatal depression
1. Difficulty in performing daily tasks 2. Social isolation 3. Feelings of disappointment 4. Effects on the family	1. Suicide or harming others 2. Infanticides/abandoning 3. Miscarriages/premature births/intra-uterine deaths 4. Lack of self-care and care for baby 5. Family discord 6. Poor milk production 7 Chronic illness		<ul style="list-style-type: none"> • Early detection and management of perinatal depression <p>Management of suicide risk</p> <ul style="list-style-type: none"> • Assessing the risk of suicide • Managing identified risk of suicide
Multidimensional causes of perinatal depression	Biopsychosocial factors causing perinatal depression		
1. Financial struggles 2. Unemployment and poverty 3. Lack of social and emotional support 4. Gender-based violence 5. Paternity denial and rejection 6. Issues of adolescent pregnant women 7. Unplanned or unwanted pregnancy 8. The effect of being HIV-positive during pregnancy.	1. Biological factors 2. Social factors 3. Psychological factors		
Factors contributing to or exacerbating perinatal depression			
1. Emotional instability 2. Fear of losing current pregnancy 3. Fear to be judged by society/ Stigmatisation 4. Chronic illness			

5. Dwelling on thoughts			
Interpersonal factors that have a negative/positive influence on perinatal depression			
1. Living in toxic or abusive relationship 2. Positive experiences			
Coping mechanisms used by women with perinatal depression			
1. Spiritual coping 2. Distraction 3. Self-reliance and resilience 4. Social and social support			
Support needs of women with perinatal depression	Integration of perinatal mental health into the primary health care setting	Centre of Perinatal Excellence (COPE). 2017. <i>Effective mental health care in the perinatal period: Australian clinical practice guidelines.</i>	Prerequisites before screening for perinatal depression <ul style="list-style-type: none"> • Informed consent • Confidentiality • Involvement of family members in screening for depression. • Follow-up visits • Policy formulation Screening for perinatal depression using a validated tool <ul style="list-style-type: none"> • Valid tool to screen for perinatal depression • Timing of screening Allocation of scores
1. Social needs 2. Health care support	1. Screening tool in the perinatal records that is translated into five local languages, 2. Provide adequate resources		
Health care needs of women with perinatal depression	3. Create awareness in the community 4. Outline clear referral pathways		
Create awareness about depression Screening for perinatal depression 3. Pharmacological intervention 4. Need for privacy and confidentiality 5. Follow up visits.	Integration of perinatal mental health into perinatal care	Centre of Perinatal Excellence (COPE). 2017. <i>Effective mental health care in the perinatal period: Australian clinical practice guidelines.</i>	Integrating psychosocial assessment and screening into perinatal care
	1. Guidelines and tools	.	<ul style="list-style-type: none"> • Assessing women with or at risk of psychosocial factors

2. Perinatal mental health not considered as part of perinatal care		<ul style="list-style-type: none"> • Incorporating screening for depression and assessment of psychosocial risk factors into perinatal care • Creating awareness on psychosocial risk factors <p>Culturally appropriate screening and assessment Culturally appropriate tools</p>
Perceived interventions to assess maternal mental health	Centre of Perinatal Excellence (COPE). 2017. <i>Effective mental health care in the perinatal period: Australian clinical practice guidelines.</i>	Management of perinatal depression
<p>1. Timing of optimal screening</p> <p>2. Provide psychosocial interventions</p> <p>3. Pharmacological intervention</p>		<p>Psychosocial management/interventions</p> <p>Outline clear referral care pathways</p> <p>Referral of severe depression</p>
<p>Barriers preventing assessment of perinatal depression</p> <p>1. Difficulty recognizing signs and symptoms of perinatal depression.</p> <p>2. Lack of guidelines and health service approach to maternal mental health</p> <p>3. Cultural influences and lack of community (public) awareness</p> <p>4. Shortage of healthcare providers</p>		
Acceptability and feasibility of interventions utility	Centre of Perinatal Excellence (COPE). 2017. <i>Effective mental health care in the perinatal period: Australian clinical practice guidelines.</i>	Acceptability and feasibility of guidelines and the interventions
<p>1. Feasibility and acceptability of integration of mental health screening and psychosocial care into perinatal care.</p> <p>2. Training and supervision</p>		<ul style="list-style-type: none"> • Provide adequate resources

7.2.4 Step 4: Stakeholders' involvement

The participating stakeholders in the NGT outlined interventions to be incorporated into the guidelines to manage women with perinatal depression (see Figure 7.1 – blue sections).

7.2.5 Step 5: Integration of conceptual framework and draft guidelines

A theoretical framework uses a theory and concepts of the theory to explain an event or a phenomenon (Imenda 2014:189). A conceptual framework is the end result of bringing together several connected concepts to explain or predict a given event and give a broader understanding of the phenomenon of interest. In a conceptual framework, the researcher uses an inductive process derived from concepts (Imenda 2014:189).

In this study, to explain and understand perinatal depression, the researcher used Kinser and Lyon's (2014) conceptual framework. Imenda (2014:188) states that after data are collected and analysed, the conceptual framework is employed as a reflection to check whether the findings agree with the framework or whether there are some inconsistencies; where there are inconsistencies, a question is asked as to whether the framework could be used to explain them. The concepts and constructs from the original framework emerged as relevant influences on perinatal depression. This meant that the findings agreed with the proposed framework and had no inconsistencies (see Figure 7.1 – purple sections).

7.2.5.1 Conceptual framework of stress vulnerability, depression, and health outcomes

The conceptual framework that guided this study is founded builds upon the biopsychosocial stress vulnerability conceptual framework developed by (Kinser & Lyon 2024). The three key concepts of the conceptual framework are stress vulnerability, depression, and health outcomes (Kinser & Lyon 2014:667) (see Figure 2.1). This framework suggests that there is a bidirectional relationship between stress vulnerability, depression, and health outcomes in women.

7.2.5.2 Stress and vulnerability

The conceptual framework indicated that stress and vulnerabilities are founded upon various factors related with acute and chronic stress, include individual chronic/acute burdens, the biological environment, and the psychosocial environment (Kinser & Lyon 2014:666).

During the perinatal period this vulnerability could lead to the development of depressive symptoms. The current study revealed that women with perinatal depression lived in a toxic environment. Some lived in an abusive relationship described instances of verbal as well as physical abuse, including hurtful words, name calling and accusations. Gender-based violence

was the main contributor to perinatal depression. Participants struggled without knowing what action to take to solve the problems they experienced. Some participants thought of leaving their husband but had nowhere to go, because of unemployment and no income to support their children.

Participants expressed the need to have instrumental support. They reported struggling to provide for their children without support from their partners. They narrated that there was no one to help them for example with house chores or to look after the baby. They indicated that the lack of instrumental support from their partner and family contributed significantly to the burden of depression. According to Negron, Martin, Almog, Balbierz and Howell (2013:616) instrumental support was regarded a vital component for the emotional well-being of women and physical in the perinatal period. Negron et al (2013 :616) attributed depressive symptoms to a lack of this type of support. Similar findings were reported in study by Slomian, Emonts, Vigneron, Acconcia, Glowacz, Reginster, Oumourgh and Bruy`ere (2017:136) where women wished someone else taking care of the baby so they could take a nap or sleep for a few hours. The author added that other women are desired to help with household duties, so that they could focus on stablishing a bond with their new baby.

The study revealed that depression was associated with low socioeconomic status, financial struggles, unemployment and poverty, struggling to meet daily needs. For most of the participants with low educational backgrounds, limited or lack of job skills and harsh economic conditions due to the COVID-19 pandemic, further reduced their hopes of securing employment. This made them vulnerable to perinatal depression. A study conducted by Ng'oma et al (2019:9) in Malawi found that women who developed perinatal depression lived in poor living condition and poverty, struggling to meet their daily needs. Those women experienced relationship problems, lack of support, sadness due to traumatic events that they had previously experienced and were experiencing such as a loss of previous pregnancy or baby and various forms of abuse from their partners. The framework indicated that vulnerabilities concerning the psychosocial environment that play a critical role in the influence of depression on health outcomes could be demographic / socioeconomic status, perceived social support, lifestyle and interpersonal situations (Kinsler & Lyon 2014:667).

Another interpersonal factor was unplanned pregnancy as a major stressor that triggered their depression. The disclosure of pregnancy to their partners triggered perinatal depression among the adolescent mothers. They reported that their partners denied paternity after they told them that they were pregnant, and they stopped communicating. Interpersonal risk factors reported in the literature include having experienced extremely stressful life circumstance, loss of a child or loved one, low social support, poverty, and intimate partner violence. Relationship

problems and unplanned pregnancy and an absence of support from the partner and family as factors mentioned have been implicated as a major contributors to perinatal depression (Lund et al 2019:2; Azale, Fekadu & Hanlon, 2018:4; Ongeru et al 2018:5; Mersha, Abebe, Sori & Abegaz ,2018:4; Osok et al.2018:6).

7.2.5 3 Depression

Periodic stressors often contribute to the onset of depression (Hammen 2018:8). Kinser and Lyon's (2014:668) conceptual framework indicates that psycho-behavioural factors contribute to development and maintenance of depressive states in women. In the study the participants reported engaging in repetitive thoughts (rumination) that caused them significant distress and obstructed engagement in positive thinking. Their thoughts centred mostly on issues affecting their lives. The framework suggests that every woman is a unique individual and has her own sense of control in the face of depression. However, depressed women frequently tend to have ruminations (repetitive negative thoughts) which increase their state of depression.

In the current study participants reported social isolation. They stated that life became a challenge and they struggled with interpersonal isolation, and most of the time had no desire to associate with others. Some participants reported that they felt judged because of their pregnancies, and this contributed to their sense of isolation from others. A study by Adlington, Vasquez, Pearce, Wilson, Nowland, Taylor and Johnson, (2023:12) showed that women with perinatal depressive symptoms have a tendency to self-isolate.

In the current study physiological factors reported by the participants include aggression, insomnia, sadness, irritability, fatigue, sleeplessness, headache, loss of appetite and weight loss. Chronic physical illness such as heart problems, HIV/AIDS, chest pain and difficulty in breathing are challenges that contributed to their perinatal depression. The framework indicated that individual chronic and acute burdens included an accumulation of life stressors that could include chronic or acute psychological or physical illnesses make women prone to develop depression (Kinser & Lyon's 2014:666).

The participants reported how depression affected their functioning as they were feeling overwhelmed by their circumstances, and are unable to concentrate and complete their household chores. Their frustration resulted in communication problems, neglecting the children's needs, scolding them disproportionately, and arguing in front of their children. This showed the effects on the family.

Participants valued informational support. They expressed the need to have received information about the pregnancy while still pregnant. Some of the participants were concerned

about birth outcomes, whether the baby would be alive or not, and if alive would she/he be in a healthy condition. The likelihood of complications or even death during pregnancy and while giving birth was also a main source of depression.

In the current study women with perinatal depression indicated the interventions used to cope with perinatal depression. Spiritual coping played a key role in helping the participants cope with perinatal depressive symptoms. This included prayer, going to church, and listening to church services. The participants indicated that they listened to music, watched television, and exercised to distract their thoughts and relieve their depression. Women indicated engaging in positive thinking by trying to control negative thinking and reactions. The participants felt confident in their ability to be self-reliant and change their way of thinking about their problems. Social support helped them to cope with depression. These interventions are similar to biopsychosocial interventions which may be effective for supporting individuals in their use of healthy, positive biopsychosocial resources (Kinser & Lyon 2014:668). The framework suggested that the person's ability to respond to stress and depression in a healthy way is mostly dependent on the availability and use of interventions. Poor health outcomes may occur if these resources are not used or available; the psychological and physical health might decrease and lead to decreased psychosocial functioning.

Health care needs of women with perinatal depression include creating awareness about depression, screening for perinatal depression, pharmacology intervention, a need for privacy and confidentiality, and follow up visits. The participants indicated that timely detection and management were key areas that needed to be addressed in order to improve the health outcomes for women with perinatal depression. Implementation of the suggested interventions in perinatal care settings, participants believed they would receive comprehensive perinatal care which is currently missing. Slomian et al (2017:137) emphasized that healthcare providers and services providers should promote maternal mental well-being and improve health outcomes.

Pharmacological intervention was suggested by participants mostly for those with severe depression and not responding to biopsychosocial interventions. According to Leung, Cook, Capra and Johnstone, (2022:1648), when people are not offered interventions that allow them to cope with repeated stressful episodes, they are at a higher risk of developing, physical injury or illness psychological injury or illness this will lead to poor health outcomes.

7.2. 5.4 Health outcomes

The capacity of an individual to recover from depressive episodes depends on the availability of interventions used or biopsychosocial interventions. Lack of biopsychosocial interventions

lead to poor health outcomes. This implies psychological and physical health may decline and lead to decreased psychosocial functioning, reduced health related quality of life, and increased occurrence of comorbid conditions (Kinser & Lyon 2014:669).

In the current study, participants mentioned the consequences of undetected and untreated perinatal depression although not scientifically proven. Suicide or harming others, infanticides and baby abandoning were consequences mentioned by the participants. They were aware that untreated depression are not only devastating to the babies who may lose their mothers, but also to the families. They further mentioned that undetected and untreated perinatal depression may cause complications during pregnancy, such as miscarriage, intra-uterine death and premature birth. They believed that mothers who suffer from perinatal depression are at greater risk of neglecting themselves and their babies. They pointed out that untreated perinatal depression could bring disharmony in the family and put children at risk of developing depression. The participants stated that there is a need to take care of mothers' mental well-being in order to avoid the extreme of family discord and the effect it has on children's development. At the six-week postnatal follow up, some women complained about poor milk production, resulting in blaming themselves for the situation. This problem could either be a cause or consequence of perinatal depression.

Similar findings in the literature stated that undetected and untreated perinatal depression is associated with significantly increased risks of preterm birth, low birth weight, caesarean section, maternal complications such diabetes, anaemia and other social problems (Jarde et al., 2016:826) ectopic pregnancy, miscarriage, hyperemesis gravidarum, preterm contractions and preeclampsia (Biratu & Haile, 2015:10; Jarde et al., 2016:826), and substance abuse which may increase the risk for developing chronic illnesses later in life. It has also effected children's physical health and socio-emotional development and low birth weight (Garthus-Niegel et al 2017:12).

In this qualitative study, after data was analysed from the field, all concepts and constructs from the original framework emerged as relevant influences on perinatal depression. The findings agreed with the proposed framework and there were no inconsistencies. This concurred with what Chowdhury (2019:100) voiced namely qualitative studies could produce richer outcomes in the social science disciplines. In figure 7.2 the researcher used arrows pointing in various directions showing progression stress vulnerability, depression, and health outcomes in women during the perinatal period.

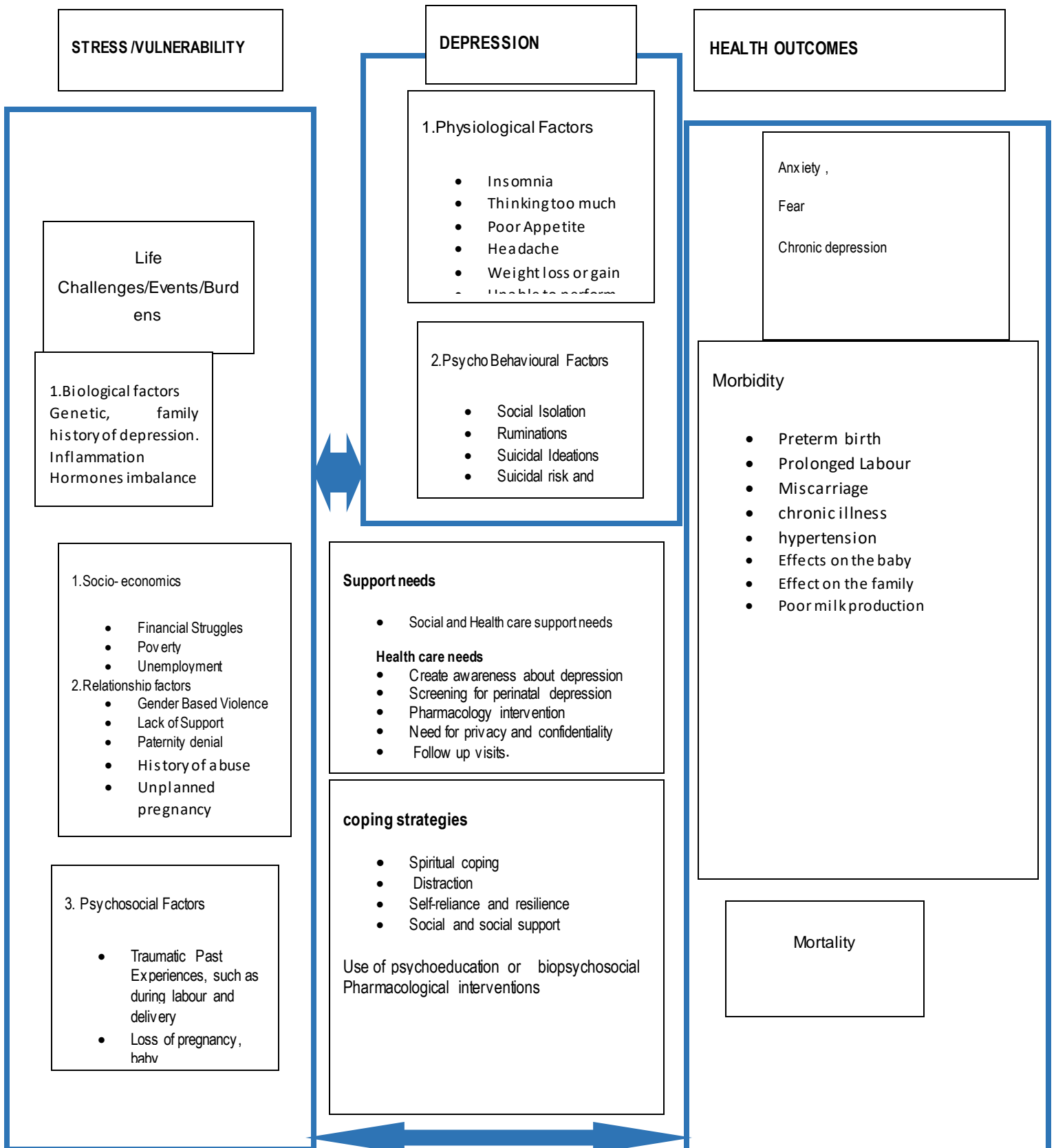


Figure 7.2 Application of conceptual framework on the study, stress / vulnerability, depression and health outcomes during perinatal period.

Table 7.3 Development of guidelines to manage perinatal depression

Findings of women	Findings of health care providers	Findings of nominal group technique	Guidelines
Social and healthcare support needs of women diagnosed with perinatal depression	Interventions to meet the healthcare support needs of women diagnosed with perinatal depression	Interventions to meet the healthcare needs of women diagnosed with perinatal depression	Guidelines to manage perinatal depression
Healthcare needs of women diagnosed with perinatal depression A need for: Informed consent Confidentiality Privacy Follow up visits	Healthcare support interventions Activities Informed consent Confidentiality Privacy Do follow-up visits	Health care interventions Activities Informed consent Confidentiality Privacy Do follow-up visits	GUIDELINE 1: Prerequisites before screening for perinatal depression
Health care needs of women with perinatal depression. A need for screening for perinatal depression	Healthcare support interventions Activities: Screening for perinatal depression using EPDS and creating awareness in the community	Healthcare support interventions Activities Screening for perinatal depression using EPDS and creating awareness in the community	GUIDELINE 2: Healthcare providers should screen for perinatal depression using a validated tool.
Healthcare support for women and health care needs A need: To be screened for perinatal depression and assessed for psychosocial risk factors Create awareness about depression /sensitize the community and family members	Healthcare support interventions Activities: Assessing psychosocial Screening for perinatal depression concurrent with assessment of psychosocial risk factors	Social intervention Activities: Assessing women with or at risk of psychosocial risk factors using validated tool, ANRQ Creating awareness Screening for perinatal depression concurrent with assessment of psychosocial risk factors	GUIDELINE 3: Integrate screening for perinatal depression and assessment of psychosocial risk factors into perinatal care as part of integrative primary health care
Healthcare needs of women diagnosed with perinatal depression A need for Cultural consideration screening and assessment	Healthcare support interventions Activities Translations of screening tools into five local languages	Healthcare support interventions Activities Translation and validation of screening tools into five local languages	GUIDELINE 4: Healthcare providers should ensure culturally appropriate screening for perinatal depression and assessment of psychosocial risk factors
Healthcare support needs of women A need for: Social and healthcare support needs.	Psychosocial interventions Activities: Providing psychosocial support for women with mild to moderate perinatal depression.	Psychosocial interventions Activities: Providing psychoeducation for women with mild to moderate and severe perinatal depression.	GUIDELINE 5: Healthcare providers managing perinatal depression with psychosocial interventions.
Healthcare need Need: Screening and assessment of risk of suicide	Healthcare support need Activities: Assessing women at risk of suicide	Healthcare support need Activities: Identifying women at risk of suicide (through clinical assessment, manage	GUIDELINE 6: Healthcare providers should assess women with or at risk of suicide.

Findings of women	Findings of health care providers	Findings of nominal group technique	Guidelines
		immediate risk, arrange for urgent mental health assessment, and consider support and treatment options.	
Healthcare need Need A need: Clear referral pathways	Healthcare support interventions Activities: Referring women with moderate and severe perinatal depression	Healthcare support interventions Activities: Outline clear referral pathways	GUIDELINE 7: Healthcare providers should establish clear referral pathways
Healthcare needs of women with perinatal depression Need: Create awareness about depression and sensitize the community and family members.	Acceptability and feasibility of the interventions utility Activities: Screening Assessment Creating awareness Providing psychosocial and pharmacological interventions Referral	Acceptability and feasibility of screening and assessment Activities Provide adequate resources, including human and financial resources. Training and supervision	GUIDELINE 8: Ensure acceptability and feasibility of the integration of perinatal mental health into primary healthcare settings

7.2.6 Step 6: Refinement of the guidelines by experts

The use of experts in refining and evaluating the guidelines ensured that quality guidelines were developed. It also ensured that peer review took place, which is considered one of the methods to ensure the credibility and confirmability of this study.

7.3 Expert participants' socio-demographic profile

The experts consisted of participants from different healthcare fields and were purposefully sampled based on their fields of expertise. The researcher invited 12 experts who met the inclusion criteria (see Chapter 3), and 10 experts participated in the NGT. Table 6.4 lists the NGT expert panel's qualifications, occupation, employer and experience.

Table 7.4 NGT expert panel qualifications, occupation, employer and experience

No.	Professional qualification	Occupation	Employer	Experience in the field, perinatal care midwifery, social worker, obstetric, academic, policy and guideline development
1	PhD in Public Health	Senior Lecturer (Nursing school)	University of Namibia	Worked as a nurse for 3 years and then as a midwife for 8 years. Worked as a Researcher for 2 years and then a Midwifery Lecturer at a University for 5 years. Currently working as a Community Health Senior Lecturer at the University of Namibia. Developed guidelines during the PhD studies.

2.	PhD Nursing, Master's in Nursing, Advanced Bachelor degree of Nursing science, Comprehensive Diploma in Nursing, Psychiatry, Community and Midwifery.	Lecturer	University of Namibia	Lectures undergraduate, midwifery programmers, academic researcher, guideline development
3	Doctor of Literature and Philosophy Health Studies	Senior Lecturer (Nursing school)	University of Namibia	25 years' experience as a Registered nurse/midwife, including 10 years' experience as a midwifery lecturer
4	Masters in nursing, Advanced Bachelor of Nursing, Diploma in Nursing, Diploma in General Nursing. Diploma in Midwifery Science	Lecturer	University of Namibia	Lectures undergraduate, midwifery programme
5	PhD candidate, Master's in Nursing, Advanced Diploma in Midwifery and Neonatology, Bachelor's in Nursing & Midwifery	Lecturer	University of Namibia	Lectures postgraduate and advanced midwifery programme
6	Bachelors in nursing and Midwifery. Advanced bachelor' degree in nursing management	Nurse manager	Ministry of Health and Social Services Namibia	Nurse and midwife for 15 years and now working as nurse manager
7	Bachelor's degree	Medical social worker	Ministry of Health and Social Services Namibia	Social worker
8	Doctor in Obstetrics and Gynaecology	Obstetrician & Gynaecologist	Ministry of Health and Social Services Namibia	Obstetrician and Gynaecologist
9	Bachelor's in Nursing and Midwifery	Midwife	Ministry of Health and Social Services Namibia	Nurse and Midwife
10	Bachelor's in Nursing and Midwifery	Midwife	Ministry of Health and Social Services Namibia	

7.4 Criteria for refining and rating the guidelines

The criteria, based on AGREE II (Brouwers et al 2017:5-7), included scope and purpose, stakeholders' involvement, clarity, validity, reliability, and applicability.

7.4.1 Scope and purpose

The scope and purpose relate to the general aim of the guidelines, the specific health questions, and the intended population (Brouwers et al 2017:11). The purpose of the study was to develop guidelines for managing perinatal depression in Namibia. To achieve this

purpose, the objectives were to explore and describe the needs of women with perinatal depression in Namibia and health care providers' experiences of perinatal depression in Namibia, to conduct a systematic review of current global guidelines to manage perinatal depression and based on all the findings, to draft preliminary guidelines to manage perinatal depression in Namibia. Guidelines to manage perinatal depression were then developed and refined. The target population for whom the guidelines were intended are women with perinatal depression in Namibia.

7.4.2 Stakeholders' involvement

The guidelines development process should include individuals from all relevant professional groups, seek views from the target population and finally, clearly define the target users of the guidelines (Brouwers et al 2017:16). The development of the guidelines was based on the empirical data generated from phase 1 support needs and health care needs of women with perinatal depressive symptoms and experiences of healthcare providers providing care to women during the perinatal period (see chapter 3). Findings of Phase 3 were generated from stakeholders, including midwives, nurse managers, doctors, social workers providing care to women during the perinatal period, and nurse educators from institutions of higher education (see chapter 5).

7.4.3 Rigour of development: validity and reliability

This refers to the trustworthiness of the guidelines associated with systematic methods used to search, gather, and synthesize evidence, methods to formulate recommendations and the update of the guidelines (Brouwers et al 2017:20). The researcher adhered to the AGREE II criteria conducted a systematic literature review; described the methods for formulating the recommendations, and ensured an explicit link between the recommendations and the supporting evidence. The guidelines were externally reviewed by a panel of experts and evaluated for reliability and validity. Chapter 7 describes the strengths and limitations of the body of evidence. To ensure validity, the guidelines are evidence-based because they were developed from the study's findings and the application of the conceptual framework used in the study.

7.4.4 Clarity of presentation

Recommendations should be specific and unambiguous, the different options for the management of the condition or health issue should be clearly presented, and key recommendations should be easily identifiable (Brouwers et al 2017:30). The draft guidelines were validated by two supervisors with experience in guideline development to ensure clarity,

specificity, and unambiguous formulation of the guidelines. The developed guidelines were supported by recommendations for their implementation to ensure clarity.

7.4.5 Applicability

The guidelines describe uses and barriers to their application, provide advice on tools and how the recommendations can be put into practice, and potential resource implications of applying the recommendations have been considered (Brouwers et al 2017:33). The target population were defined as all healthcare providers providing care to women during the perinatal period, such as midwives, nurse managers, doctors, social workers, and nurses, who tested the applicability to perinatal care settings in Namibia. The applicability was also judged by the panel of experts but will only be put to the test when implemented in practice.

7.5 Expert panel findings

The researcher made the necessary modifications to the guidelines as recommended by the experts. Furthermore, the guidelines were refined against the attributes adopted during guideline development, namely scope and purpose, stakeholders' involvement, rigour of development, clarity of presentation, applicability, validity and reliability. Table 6.5 shows the consensus comments, followed by a description of the outcomes of the modification phase. The findings were quantified according to the Likert scale rating provided against the set criteria. This was consolidated and summarized in the initial summary sheet. A consensus rate of more than 70% was obtained. According to Brouwers et al (2017:10), high-quality guidelines have more than 70% scores. Tables 6.6 and 6.7 present the experts' consensus rates.

Table 7.5 Summary of themes from the expert panel findings

Criteria	Experts comments	Discussion
Purpose The purpose of the guidelines is to manage perinatal depression in Namibia	It is clearly stated.	
Scope The guidelines were developed for healthcare providers; including midwives, doctors, social workers, gynaecologist, psychologist, healthcare managers, managing women with perinatal depression and lecturers involved in training of healthcare providers.	-Yes, the scope is explicitly stated. However, the scope should include paediatrician/neonatology. They should assess for perinatal depression mostly in mothers with premature babies". In which category student nurses are falling?"	In response to the concern, the researcher's response is that the purpose of this study was to develop guidelines for managing perinatal depression in Namibia. All healthcare providers including neonatologist and paediatrician can use the guidelines. The healthcare students' scope is not within this study's objectives and purpose. However, the institutions that train healthcare students should incorporate the guidelines into the curriculum. The researcher will work closely

		with responsible persons to ensure the guidelines are incorporated in the curriculum
<p>Stakeholders' involvement</p> <p>Semi structured interviews were held with women diagnosed with perinatal depression. Other semi structured interviews were held with healthcare providers providing care to women during perinatal. One day workshop through a Nominal Group Technique was held with stakeholders including, midwives, doctors, social workers, lecturers, and healthcare managers providing care to women during the perinatal period. Findings of phases 1 and 2 were presented. Stakeholders reached consensus on what drafted preliminary guidelines should entail. Nominal Group Technique in the area of, guidelines development and policy such as academic researchers, doctors, social workers midwives, and hospital managers refined and rated the guidelines.</p>	<p>- They are explicitly stated, however, the consulted stakeholders are correct but looking at the title and the nature of the study, the student needed to consult either a psychiatrist, psychologist, or a psychological counsellor for their inputs as these people have done clinical psychology which can add value to the refinement of the guidelines. "Were there any stakeholders particularly the doctors and midwives from the private sectors? It is not clear if the study was conducted in the state or private sector and if the guidelines are for use in the state or private sector".</p>	<p>In response to the above concerns, the researcher responded that invitations were sent to a psychiatrist and psychologist via phone messages and in person. However, they indicated they could not attend the workshop due to their workloads. Since there are no existing guidelines to manage perinatal depression in Namibia, the guidelines developed in this study could be used by all healthcare providers, both in the state and private sector.</p>
<p>Reliability</p> <p>Guideline is developed in a systematic and rigorous manner and when implemented would produce intended results/findings</p>	<p>Yes, we observed and agreed that guidelines were developed in a systematic and rigorous manner.</p>	
<p>Validity</p> <p>The guideline will guide healthcare providers managing women diagnosed with perinatal depression.</p>	<p>"These are good guidelines; Agree women who develop perinatal depression are burdened with psychosocial issues"</p> <p>Health care workers just need to be trained on the tools that need to be used to screen for perinatal depression and assess psychosocial risk factors.</p> <p>It can perhaps even be incorporated in the curricular of the health professionals in future to ensure that they are all trained.</p>	

<p>Clarity The developed guideline is clear, simple, unambiguous, and is supported by recommendations for easy implementation</p>	<p>Yes, the guidelines are clear.</p>	
<p>Applicability Target population is clearly stated healthcare providers managing women diagnosed with perinatal depression.</p>	<p>We agreed that the target population of the guidelines is clearly stated.</p>	

Table 7.6 Expert panel's rating of the guidelines

	Scope of the guidelines				Purpose of the guidelines				Stakeholders' involvement				Reliability				Validity				Clarity				Applicability			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Guideline 1				10				10			2	8			1	9				10				10				10
Guideline 2			1	9			1	9			1	9			2	8			1	9			3	7			3	7
Guideline 3				10				10			1	9				10				10			2	8				10
Guideline 4				10				10				10				10				10				10		1	2	7
Guideline 5			1	9				10			1	9			1	9				10				10				10
Guideline 6			1	9				10			1	9				10				10			2	8			3	7
Guideline 7				10				10				10				10				10				10				10
Guideline 8			2	8			1	9			2	8			1	9				10				10				10
Total Score			5	75			2	78			7	72			5	75			1	79			7	73		1	8	79

Table 7.7 Expert panel’s rating of the guidelines

	Scope				Purpose				Stakeholders’ involvement				Reliability				Validity				Clarity				Applicability			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Guideline 1				40				40			6	32			3	36				40				40				40
Guideline 2			3	36			3	36			3	36			6	32			3	36			9	28			9	28
Guideline 3				40				40			3	36				40				40			6	32				40
Guideline 4				40				40				40				40				40				40		2	6	28
Guideline 5			3	36				40			3	36			3	36				40				40				40
Guideline 6			3	36				40			3	36				40				40			6	32			9	28
Guideline 7			40					40				40				40				40				40				40
Guideline 8		6	32				3	36			6	32			3	36				40				40				40
Total Score		15	300				6	312			24	288			15	300			3	316			21	292			24	284
Total score		315				318				336				315				319				313				332		
Consensus rate		86%				85%				79%				86%				84%				86%				80%		

7.5 Guidelines dissemination and implementation

The planning of the guidelines dissemination and implementation process should be a part of guidelines development. It is recommended that the developed guidelines be disseminated to the wider healthcare communities for evaluation, recommendations and implementation. Therefore, the researcher will share the research report with the Ministry of Health and Social Services Research Department in Namibia so that the Ministry can be alerted to the study's findings. These guidelines should be disseminated to all stakeholders, including all perinatal healthcare settings, nursing managers, institutions of higher learning training and healthcare providers for reference and implementation purposes. The developed guidelines will be disseminated in papers at seminars research symposiums, and published in midwifery journals. Hard copies of the dissertation will be made available at the University of Namibia Library repository. The implementation of the guidelines will be done during a postdoctoral study.

7.6 Conclusion

This chapter integrated the conceptual framework and findings of phase 1,2 and 3 of the study. This chapter further discussed the development, refinement and rating of the guidelines to manage perinatal depression in Namibia. The guiding attributes used in the development, refinement and rating were described, as well as the steps in the process of refinement and rating. Chapter 7 briefly presents the conclusions, limitations, and strengths of the study, makes recommendations, and concludes the study.

CHAPTER 8 CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

8.1 Introduction

The previous chapter discussed the development of guidelines to manage perinatal depression to address screening for perinatal depression. It will play a role in achieving the Government of Namibia's aim of integrating mental health into maternal health care services (MOHSS 2017:13). This could help make perinatal depression a public health agenda in Namibia. This chapter highlights the conclusions, limitations and recommendations.

8.2 Purpose of the study

The purpose of the study was to develop guidelines for managing perinatal depression in Namibia. In order to achieve the purpose, the objectives were to:

Phase 1

- Explore and describe the experiences of women with perinatal depression.
- Explore and describe the needs of women with perinatal depression.
- Explore and describe the healthcare providers' experiences of working with women with perinatal depression.
- Explore and describe the barriers preventing assessment of perinatal depression

Phase 2

- Conduct a systematic review of current global guidelines to manage perinatal depression.

Phase 3

- Based on the findings of objectives 1, 2 and 3, draft preliminary guidelines to manage perinatal depression in Namibia.
- Develop and refine guidelines to manage perinatal depression.

8.3 Conclusion of findings

The study's conclusion is divided into seven sections:

- Conceptual framework
- Exploration and description of the experiences and needs of women with perinatal depression.
- Exploration and description of the experiences of healthcare providers working with women with perinatal depression.
- Explore and describe the barriers preventing assessment of perinatal depression.
- Barriers to assessment and management of perinatal depression
- Systematic literature review to identify guidelines used to manage perinatal depression globally

- Development and refinement of guidelines to manage perinatal depression.

The conclusions are derived from the objectives of the study as described below:

8.3.1 Conceptual framework

The researcher used Kinser and Lyon's (2014) conceptual framework of stress vulnerability, depression and health outcomes in women. In phase 1, the conceptual framework guided the identification of causes, risk factors and needs (vulnerabilities) of women related to depression and the coping mechanisms they used. In phase 2, the conceptual framework was used to inform the search for relevant literature regarding perinatal guidelines. It assisted the researcher to identify the characteristics of perinatal guidelines used to screen for perinatal depression globally which could be adapted in the Namibian context. In phase 3, the conceptual framework was used to identify relevant interventions to ensure better health outcomes using biopsychosocial interventions. The framework provided the concepts and domains used in developing guidelines to manage perinatal depression and assist the researcher to develop the guidelines for use in Namibia

8.3.2 Experiences of women with perinatal depression

The findings indicated that women with perinatal depressive symptoms were much aware of perinatal depression. Women used culturally applicable phrases/idioms to express their experiences and understanding of perinatal depression. They conceptualised perinatal depression as emotional problems, a troubled mind, and overthinking or thinking too much. They further described feeling overwhelmed by their circumstances, inability to concentrate and complete their household chores. They described how perinatal depression affected their families. Women described multiple causes of perinatal depression, including challenging life circumstances that led to variations in mood and depression, and life events that caused them pain and suffering. Factors contributing to or exacerbating perinatal depression such as emotional instability and fear of losing the current pregnancy and fear to be judged by society or stigmatisation. Interpersonal factors also influenced perinatal depression. Women with perinatal depression mentioned that these factors caused the pain and suffering .

Coping methods. Women with perinatal depression established various coping strategies such as spiritual coping, prayer, distraction, self-reliance and resilience, and some are social. These coping strategies are regarded as useful because the participants reported having their hope restored and experiencing relief from their burdens, especially after listening to the Word of God and praying. Women with perinatal depressive symptoms indicated engaging in positive thinking by trying to control negative thinking and reactions Self-reliance and

resilience coping strategy used by women to cope with depression is similar to Cognitive Behavioural Therapy (CBT). In CBT depressed women are taught to monitor their negative moods, thoughts, and behaviours to alter them into positive thoughts through methods called healthy thinking and behaviour activation, which may improve their depressive symptoms (Stefan et al 2019:2).

8.3.3 Explore and describe the needs of women with perinatal depression

Support needs. Women with depressive symptoms indicated that they experience loneliness. They indicated that they preferred to share their emotional distress with a trusted person, especially those who had some mothering experience. They further stated they needed health care and social support, engagement, assurance and informal counselling from health care providers and the community. Healthcare support and services should be integrated into their management.

Health care needs. Women with depressive symptoms stated that during antenatal care they were given health education about other diseases affecting pregnant women but nothing was said about depression. They lamented that this aspect of screening for perinatal depression was lacking in their care, as they were only given health education about some pregnancy-related matters while forgetting that pregnancy itself can stress women. They expressed a need for more comprehensive services at the clinic, including physical and emotional support. They expressed the need to be screened for perinatal depression during the perinatal period.

8.3.4 Healthcare providers' experiences of working with women with perinatal depression.

Findings from this objective indicated that healthcare providers understood perinatal depression as a mental health problem occurring during pregnancy or after childbirth and related it to signs and symptoms. The participants added that perinatal depression was common in Namibia and is often under diagnosed by treating healthcare providers. The participants stated that perinatal depression could be caused by biological, psychological and social (biopsychosocial) factors as these factors are prevalent in Namibia society. They indicated that it was imperative to understand the causes of perinatal depression to advance their involvement in designing interventions that could assist in identifying, preventing, and managing perinatal depression. The participants stated that undetected and untreated perinatal depression could have several consequences for women, foetuses, babies and the community. They revealed that the consequences of undetected and untreated depression including baby dumping and infanticide, complications during pregnancy, such as miscarriage,

intrauterine death and premature birth. In addition, mothers who suffered from perinatal depression were at greater risk of neglecting themselves and their babies. Perinatal depression could add to or aggravate family discord, possibly affect poor milk production, this would lead to poor infant growth. Interestingly, the participants assumed that some of the chronic illnesses, such as high blood pressure, diabetic and cardiac conditions, treated on a daily basis around hospitals and clinics were caused by untreated depression. Because no screening is done these mothers may not even be aware they are suffering from depression.

8.3.5 Barriers to assessment and management of perinatal depression.

The participants indicated difficulty recognising signs and symptoms of perinatal depression as major barrier that prevented them to manage perinatal depression. They expressed the need to have perinatal guidelines and are concerned that due to lack of guidelines, they were faced with a challenge to detect and manage women with perinatal depressive symptoms.

Perceived interventions to assess maternal mental health. The participants suggested interventions that would assist in assessing maternal mental health, including timing of optimal screening, involving a multidisciplinary team, and psychosocial and pharmacological interventions. They maintained that consideration of these interventions would facilitate access to maternal mental health. The participants expressed concern that cultural influences, such as stigma, norms or beliefs about perinatal depression and witchcraft might indirectly affect implementation of perinatal depression health services. They further stressed that some community members might not be aware that maternal depression is treatable. Therefore awareness is needed so that people would know what perinatal depression is and where the service can be accessed or are available. To avoid a shortage of staff, screening for perinatal depression requires support from a wider multidisciplinary team, ideally with social workers, psychiatrists, psychologists, community counsellors, families, and community members.

Integration of perinatal mental health into the primary health care (PHC) setting. The participants maintained that perinatal mental health should be integrated into existing primary health care. This could transform a routine perinatal care setting into a one-stop clinic providing holistic care to address physical and mental health needs. For smooth integration, they suggested that a screening tool be added to the perinatal records and translated into five local languages. The government should take responsibility for providing adequate resources and creating awareness about perinatal depression in the community. The participants stated that the integration of maternal mental health programmes into PHC should prove relatively

easy for Namibia because an existing PHC programme and resources, such as an HIV and TB programme, were available.

Acceptability and feasibility of interventions utility. The participants felt that the utility of the interventions would be acceptable and feasible. The participants believed the interventions would be acceptable because they provide an important, neglected aspect. However, regarding feasibility, the participants were concerned that a lack of financial and human resources might hinder the provision of these interventions.

8.3.6 Systematic literature review

The researcher conducted a systematic literature review to identify guidelines used to manage perinatal depression globally. The researcher selected the Centre of Perinatal Excellence (COPE, 2017) *Effective mental health care in the perinatal period: Australian Clinical Practice Guidelines* for adaptation to the Namibian context. The guidelines were developed to accommodate the aboriginal and Torres Strait Islander women in Australia. Aboriginal and Torres Strait Islander people are often confronted with complex presentations, such as mental health problems, cultural disconnect, and multiple stressors in the form of poverty or poor housing, child removal, as well as trauma, abuse and loss (Austin & Hight 2017:21). The researcher believed that the context of this population had similar characteristics with most low- and middle-income countries, including Namibia. The Edinburgh Postnatal Depression Scale (EPDS) was recommended for screening for perinatal depression, and the Antenatal Risk Questionnaire (ANRQ) for assessment of psychosocial factors. The researcher developed preliminary draft guidelines to manage perinatal depression in Namibia

8.3.7 Development and refinement of guidelines to manage perinatal depression

The researcher based the guidelines on the findings of Phases 1 and 2 and Kinser and Lyon's (2014) conceptual framework of stress vulnerability, depression and health outcomes and followed the steps of *AGREE II: Advancing guideline development, reporting and evaluation in health care* (Brouwers, Kho, Browman, Burgers, Cluzeau et al, 2017). The guidelines were refined by a panel of experts in an NGT according to seven criteria, namely scope, purpose, stakeholder involvement, validity, reliability, clarity and applicability. Based on the comments and recommendations of the expert participants during the NGT, the researcher reformulated the guidelines to manage perinatal depression.

The guidelines were developed for healthcare providers, including midwives, doctors, gynaecologists, psychologists, social workers, and healthcare managers managing women

with perinatal depression, and lecturers involved in training healthcare providers. Annexure N describes the guidelines and the actions for implementation.

8.4 Significance of the study

A research study should be significant to the nursing profession and contribute to the body of knowledge (Brink, van der Walt & van Rensburg 2012:61). The study findings should benefit policy and practice, nursing education, and community awareness and involvement and encourage further research.

8.4.1 Policy and practice

Policy formulation and implementation need to adopt a much wider, biopsychosocial framing of mental health and mental illness. The biopsychosocial model include promotive, protective, preventive, and recovery-oriented strategies using diverse resources within communities (Patel, Saxena, Lund, Kohrt, Kieling, Sunkel & Herrman 2023:661). The findings should assist the Ministry of Health and Social Services (MOHSS) and policymakers in developing and implementing effective interventions for addressing perinatal depression, thereby reducing the burden of depression in women during the perinatal period. Perinatal mental health policies should guide facilities to enhance functionality and accountability. This could increase women's access to mental health care during the perinatal period and contribute to the government's agenda of improving the mental health of all Namibians. The developed guidelines for midwives/health care providers to manage perinatal depression should enable them to effectively detect, manage and refer women with perinatal depression in Namibia. Early identification of perinatal depression may avoid the worsening of depression. The guidelines should also improve accessibility to mental health care and promote the safety of women in the perinatal period. The MOHSS should formulate policy frameworks to address social determinants of perinatal depression, such as gender-based violence, unplanned pregnancy, lack of social support, and low socio-economic conditions to minimize the prevalence of perinatal depression and provide needed psychosocial interventions.

8.4.2 Nursing education

The substandard care of patients due to a lack of knowledge on depression and screening created a gap in nursing practice. The evidence-based literature indicated that the gap might be filled when nurses receive education that is related to perinatal depression (Kendig et al 2017:275). The findings of this study add to the existing knowledge on perinatal depression guidelines, which include the instruments used to screen for perinatal depression and interventions. Nurse educators may use the guidelines when formulating, reviewing or

implementing curricula for midwives to screen for and manage depression during the perinatal period effectively. The students may benefit from the guidelines because they can be proactive in identifying women who are at risk, need to be further assessed and treated for depression.

Nursing colleges and training institutions should incorporate the guidelines into the curriculum to train healthcare providers to screen, detect and manage perinatal depression. During training, cultural issues should be emphasized to ensure that healthcare providers learn how to deal with cultural matters during screening and management of perinatal depression.

Negative healthcare provider behaviour towards women with perinatal depression continues to be a hindrance to perinatal mental health services (Baldisserotto et al 2020:102). The training of health care providers should emphasize the importance of good interpersonal relationships and acceptable behaviour when dealing with women with perinatal depression. Lastly, the findings may also be incorporated into ongoing, in-service professional development programmes for midwives to manage perinatal depression with competence and confidence. Providing education about perinatal mental health will lead to optimal and improvement of care for women, babies, and patient satisfaction due to the new knowledge obtained from the educational program into practice (Woolary, 2022:9).

8.4.3 Community

Promotion and prevention of perinatal depression could decrease physical and psychological distress. These include social policies and strategies for creating employment, prevention, supporting the education of women, creating awareness on causes of perinatal depression, and reduction of violence (Pal, 2023:2639). The findings of the study and the guidelines should assist and guide perinatal care facility managers to expand awareness about perinatal mental health programmes.

Implement interventions such as counselling at the community level. Community awareness and knowledge of perinatal depression and the importance of screening should be encouraged by healthcare providers, social workers, and community leaders. Family involvement should be considered the key target for interventions to decrease the prevalence of perinatal depression. Developing these guidelines may be the first step in translating evidence into practice. This may serve as a platform for future research to evaluate the effectiveness and suitability of the perinatal guidelines.

8.5 Strengths and limitations of the study

The strengths of the study included being guided by a recognised conceptual framework and using a multi-method (triangulation) approach to collect data to ensure the transferability of the findings to similar contexts and populations. An expert panel approved and rated the developed guidelines by formal consensus (NGT) as relevant for the primary healthcare context. The researcher identified the following limitations of the study:

- The study was contextual therefore, the findings apply to women in Namibia and might not be transferable to women in other settings or regions.
- The researcher purposively selected only women with perinatal depressive symptoms; therefore, the study might have yielded more findings if their husbands or partners had been included.
- The participant healthcare providers did not include a psychologist and psychiatrist, whose input could have enriched the findings.
- The study was conducted during the COVID-19 pandemic, which severely affected Namibia and the world. Some of the women or their partners had been retrenched or lost their work, impacting their livelihood and mental well-being. Therefore, the findings of the study should be interpreted with caution.

8.6 Recommendations

Based on the findings, the researcher makes the following recommendations for nursing education, practice and further research.

8.6.1 Education

Maternal mental health is a specialised field therefore, healthcare providers need specialised training and knowledge regarding maternal mental health and other mental illnesses affecting women during the perinatal period. Accordingly, to prepare health care providers to provide quality maternal care and service:

- The curriculum and syllabus of healthcare providers should be reviewed and upgraded to reflect maternal mental health and mental illnesses and the support and healthcare needs of women with perinatal depression.
- The guidelines should be incorporated into the curriculum of healthcare training programmes.
- The need for confidentiality, informed consent, privacy, awareness and follow-ups should be incorporated into the curriculum to improve knowledge and skills.

- Ongoing in-service training, education and workshops on maternal mental health and perinatal depression should be provided to all healthcare providers providing perinatal care.
- The guidelines should be available at all primary healthcare facilities for reference and guidance.
- The guidelines should be available for healthcare students as a referral document during their clinical placement in perinatal healthcare settings.

8.6.2 Practice

Midwives, doctors, psychologists, psychiatrists and community counsellors should collaborate effectively and become familiar with each other's roles in the care of women with or at risk of depression.

- Healthcare providers involved in the care of women with perinatal depression should include the developed guidelines as a perinatal mental health care working policy document in maternal health care institutions.
- Ensure that the relevant policies and the developed guidelines are available to facilitate the implementation of screening for perinatal depression countrywide.
- Ensure confidentiality, informed consent and privacy during screening for perinatal depression and assessment of psychosocial risk factors.
- Involve the partners and families of women with perinatal depression in the management.
- Educate women on the signs, symptoms and causes of perinatal depression and psychosocial risk factors influencing perinatal depression, such as gender-based violence.
- The government and the ministry of health and social services should provide adequate resources.
- Provide psychosocial interventions and spiritual coping strategies to women diagnosed with perinatal depression.
- When a woman is identified as at risk of suicide (through clinical assessment and/or the EPDS), manage immediate risk, arrange for urgent mental health assessment and consider support and treatment options.
- Ensure that clear referral pathways and resources are in place to refer women for proper management.

- Provide continuous health education to sensitize women diagnosed with perinatal depression about potential healthcare support needs and empower them to cope with and manage perinatal depression.

8.6.3 Further research

The guidelines developed in this study need to be tested further, verified in clinical practice and then revised to suit the context in which they are used practically. The researcher recommends that further research be conducted on the following topics:

- The study was conducted in Windhoek, the capital city in the Khomas region of Namibia. It is recommended that the same study be conducted in other areas.
- The perceptions and experiences of healthcare providers of the implementation and outcomes of the guidelines to manage perinatal depression in Namibia
- The perceptions and experiences of healthcare providers of screening, detecting and managing perinatal depression
- A quantitative analysis of the needs of women with perinatal depression
- The influence of tradition, culture and family support on the well-being of women with perinatal depression
- An exploration of the views and experiences of spouses and partners of women with perinatal depression and their needs and coping strategies.

8.7 Contribution to the body of knowledge

The findings from this study contributed to the development of guidelines to manage perinatal depression in Namibia. In Namibia, studies regarding the prevalence of perinatal depression and other mental illnesses are rare. Currently, there is no reliable comprehensive epidemiological statistics about the prevalence of perinatal depression. During the perinatal period women are not routinely screened for perinatal depression in the country. The development of guidelines to manage perinatal depression is critical for the early identification and management of women with depressive symptoms, leading to improvement of their mental health. The findings broaden the local mental health agenda by decreasing the treatment gap for women affected by perinatal depression. The development of guidelines to manage perinatal depression play a role in achieving the Government of Namibia's aim of integrating mental health into maternal health care services. This could help make perinatal depression a public health agenda in Namibia

8.7.1 Explore and describe the experiences of women with perinatal depression

The firstly, objective of this study contributed to the new knowledge on experiences of women with perinatal depression which has limited knowledge in the country. This was done by exploring the awareness of depression and manifestation of perinatal depression. Secondly, the study described the multidimensional causes of perinatal depression namely social, biological, psychological, interpersonal and social-cultural . Knowledge and understanding of these factors is needed to develop suitable interventions to address perinatal depression. Addressing the causes of perinatal depression can improve maternal mental well-being, reduce the burden, and improve health outcomes for women and babies. Thirdly, the study explored the coping strategies used by women to cope with perinatal depression. These strategies were incorporated in the guidelines for management of perinatal depression. The findings would further be used as a reference document by future researchers.

8.7.2 Explore and describe the needs of women with perinatal depression.

The findings provides support for plans to develop contextual guidelines. To develop the interventions that focuses on the expressed needs of women psychological, social as well as informational needs, involves family members, and could be implemented by nonskilled workers in the community. The guidelines emphasize ensuring confidentiality, privacy during screening of perinatal depression. The developed guidelines are culturally appropriate because guidelines are modified to include local research and consensus.

8.7.3 Explore and describe the experience of the healthcare providers working with women with perinatal depression.

Another key contribution is the identification of the consequences of untreated and undetected perinatal depression. The findings pointed out that untreated perinatal depression could bring disharmony in the family and put children at risk of developing depression. It's anticipated the findings might assist the government in formulating policy frameworks to address social determinants of perinatal depression such as baby abandoning/infanticide, suicide, gender-based violence, unplanned pregnancy, lack of social support, and low socio-economic conditions. This would minimize the prevalence of perinatal depression by providing timely needed psychosocial interventions.

8.7.4 Explore and describe the barriers preventing assessment of perinatal depression

For development of the contextual guidelines the barriers preventing assessment of perinatal depression were identified. These guidelines ensured that the identified barriers were

addressed during the guidelines development. Community awareness and knowledge of perinatal depression and the importance of screening should be encouraged by healthcare providers, and community leaders.

8.8 Conclusion

The purpose of the study was to develop guidelines for managing perinatal depression in Namibia. The chapter discussed the study's contributions to the body of knowledge. The main contributions renowned here included the development of the guidelines to manage perinatal depression. The guidelines are the first step in closing the gap in maternal mental health in Namibia. Their implementation might facilitate the integration of maternal mental health into primary healthcare settings. This would enable healthcare providers to screen, detect and manage perinatal depression. Guidelines would ensure information about perinatal depression is documented and shared with all healthcare providers involved in maternal healthcare.

LIST OF REFERENCES

- Abas, M, Bowers, T, Manda, E, Cooper, S, Machando, D, Verhey, R, Lamech, N, Araya, R & Chibanda, D. 2016. 'Opening up the mind': problem-solving therapy delivered by female lay health workers to improve access to evidence-based care for depression and other common mental disorders through the Friendship Bench Project in Zimbabwe. *International Journal of Mental Health Systems*, 10(1):1-8. [DOI 10.1186/s13033-016-0071-9](https://doi.org/10.1186/s13033-016-0071-9)
- Abdullah, MM & Islam, R. 2011. Nominal group technique and its applications in managing quality in higher education. *Pakistan Journal of Commerce and Social Sciences*, 5(1):81–99.
- Abrahams, Z, Boisits, S, Schneider, M, Honikman, S & Lund, C. 2021. Facilitators and barriers to detection and treatment of depression, anxiety and experiences of domestic violence in pregnant women attending midwife obstetric units (MOUs) in Cape Town , South Africa: a qualitative study.(3) 1–20.
- Adlington, K, Vasquez, C, Pearce, E, Wilson, CA, Nowland, R, Taylor, B L & Johnson, S. 2023. 'Just snap out of it'—the experience of loneliness in women with perinatal depression: a Meta-synthesis of qualitative studies. *BMC psychiatry*, 23(1), 110.
- Adjorlolo, S & Aziato, L. 2020. Barriers to addressing mental health issues in childbearing women in Ghana. *Nursing Open*, 7(6):1779–1786 . [DOI: 10.1002/nop2.564](https://doi.org/10.1002/nop2.564)
- Al-Halabí, S, García-Haro, M, Rodríguez, MDF & Fonseca-Pedrero, E. 2021. Suicidal behaviour and the perinatal period: taboo and misunderstanding. *Papeles del Psicólogo*, 42(3):161–169.
- Al Sharji, A, Alaloul, F, Al Yazeedi, B & Alharrasi, M. 2023. Fatalistic and Optimistic Coping Strategies Predict Depression in Arab Muslim Patients With End-Stage Renal Disease. *Journal of Transcultural Nursing*, 10436596231217696.
- Ali, GC, Ryan, G & De Silva, MJ. 2016. Validated screening tools for common mental disorders in low- and middle-income countries: a systematic review. *PLoS One*, 11(6):1–14.
- Almanasreh, E, Moles, R & Chen, TF. 2019. Evaluation of methods used for estimating content validity. *Research in Social and Administrative Pharmacy*, 15(2):214-221.
- Alvarado-Esquivel, C, Sifuentes-Alvarez, A & Salas-Martinez, C. 2014. Validation of the Edinburgh postpartum depression scale in a population of adult pregnant women in Mexico. *Journal of Clinical Medicine Research*, 6(5):374.
- Amathila, LI. 2012. *Making a difference*. Windhoek: University of Namibia Press.

- Amroussia, N, Hernandez, A, Vives-Cases, C & Goicolea, I. 2017. 'Is the doctor God to punish me?!' An intersectional examination of disrespectful and abusive care during childbirth against single mothers in Tunisia. *Reproductive Health*, 14(1):1-12.
- Amukugo, HJ & Karera, A. 2019. Psychological factors contributing to baby dumping and infanticide: experiences of incarcerated women who had dumped babies and/or committed infanticide in Namibia. *Journal of Innovation and Research in Health Sciences & Biotechnology*, 4(1):670-680.
- Anbesaw, T, Negash, A, Mamaru, A, Abebe, H, Belete, A & Ayano, G. 2021. Suicidal ideation and associated factors among pregnant women attending antenatal care in Jimma medical center, Ethiopia. *PLoS One*, 16(8):e0255746.
- Anding, JE, Röhrle, B, Grieshop, M, Schücking, B & Christiansen, H. 2016. Couple comorbidity and correlates of postnatal depressive symptoms in mothers and fathers in the first two weeks following delivery. *Journal of Affective Disorders*, 190 (February 2016):300–309.
<https://doi.org/10.1016/j.jad.2015.10.033>.
- Andrade-Gómez, E, Martínez-Gómez, D, Rodríguez-Artalejo, F & García-Esquinas, E. 2018. Sedentary behaviours, physical activity, and changes in depression and psychological distress symptoms in older adults. *Depression and Anxiety*, 35(9):884-897.
- Andrews, L. 2016. Non-specialist health worker interventions for the care of mental, neurological, and substance-abuse disorders in low- and middle-income countries. *Issues in Mental Health Nursing*, 37(2):131–132.<https://doi.org/10.3109/01612840.2015.1128299>.
- Arifin, SRM, Cheyne, H & Maxwell, M. 2018. Review of the prevalence of postnatal depression across cultures. *AIMS Public Health*, 5(3):260.
- Aromataris, E & Pearson, A. 2014. The systematic review: an overview. *American Journal of Nursing*, 114(3):53–58. <https://doi.org/10.1097/01.NAJ.0000444496.24228.2c>.
- Asare, SF & Rodriguez-Muñoz, MF. 2022. Understanding Healthcare Professionals' Knowledge on Perinatal Depression among Women in a Tertiary Hospital in Ghana: A Qualitative Study. *International journal of environmental research and public health*, 19(23), 15960.
- Ashaba, S, Rukundo, GZ, Beinempaka, F, Ntaro, M & Leblanc, JC. 2015. Maternal depression and malnutrition in children in southwest Uganda: a case control study. *BMC Public Health*, 15(1):1-6.
<https://doi.org/10.1186/s12889-015-2644-y>.

- Ashipala, DO, Wilkinson, W & van Dyk, A. 2016. Mental health policy implementation as an integral part of primary health care services in Oshana region, Namibia. *Journal of Nursing Education and Practice*, 6(11): 53.
- Attia, A. 2013. Adaptation of international evidence based clinical practice guidelines : the ADAPTE process. *Middle East Fertility Society Journal*, 18(2):123-126.
https://doi.org/10.1016/j.mefs.2013.03.002_
- Austin, MP, Colton, J, Priest, S, Reilly, N & Hadzi-Pavlovic, D. 2013. The antenatal risk questionnaire (ANRQ): acceptability and use for psychosocial risk assessment in the maternity setting. *Women and Birth*, 26(1):17-25.
- Austin, MP, Highet, N & the Expert Working Group. 2017. *Mental health care in the perinatal period: Australian clinical practice guideline*. Melbourne: Centre of Perinatal Excellence.
- Austin, M & Kingston, D. 2016. *Psychosocial assessment and depression screening in the perinatal period: benefits, challenges and implementation*. Seattle, WA: semanticscholar.org.
- Ayers, S. 2014. Fear of childbirth, postnatal post-traumatic stress disorder and midwifery care. *Midwifery*, 30(2):145-148. https://doi.org/10.1016/j.midw.2013.12.001_
- Azale, T, Fekadu, A & Hanlon, C. 2018. Postpartum depressive symptoms in the context of high social adversity and reproductive health threats: a population-based study. *International Journal of Mental Health Systems*, 12(1):1–10.
- Backe, EL, Bosire, EN, Kim, AW & Mendenhall, E. 2021. "Thinking too much": a systematic review of the idiom of distress in sub-Saharan Africa. *Culture, Medicine and Psychiatry*, 45(4): 655–682.
<https://doi.org/10.1007/s11013-020-09697-z>.
- Baldisserotto, ML, Miranda Theme, M. Gomez, LY & dos Reis, TBQ. 2020. Barriers to seeking and accepting treatment for perinatal depression: a qualitative study in Rio de Janeiro, Brazil. *Community Mental Health Journal*, 56(1):99–106. <https://doi.org/10.1007/s10597-019-00450-4>
- Bansal, A, Kalra, R & Dubey, V. 2019. Perinatal risk assessment of women for psychological problems. *Indian Journal of Obstetrics & Gynaecology*, 6:321–330.
- Baron, EC, Hanlon, C, Mall, S, Honikman, S, Breuer, E, Kathree, T, Luitel, NP, Nakku, J, Tomlinson, M et al. 2016. Maternal mental health in primary care in five low- and middle-income countries: a situational analysis. *BMC Health Services Research*, 16(1):2-16

- Barbui, C, Purgato, M, Abdulmalik, J, Acarturk, C, Eaton, J, Gastaldon, C.& Thornicroft, G. 2020. Efficacy of psychosocial interventions for mental health outcomes in low-income and middle-income countries: an umbrella review. *The Lancet Psychiatry*, 7(2), 162-172.
- Bartholomew, TT. 2016. Mental health in Namibia: Connecting discourses on psychological distress, western treatments and traditional healing. *Psychology and Developing Societies*, 28(1), 101-125.
- Braun, V.& Clarke,V. 2006. Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>.
- Barry, TJ, Murray, L, Fearon, RMP, Moutsiana, C, Cooper, P, Goodyer, IM, Herbert, J & Halligan, SL. 2015. Maternal postnatal depression predicts altered offspring biological stress reactivity in adulthood. *Psychoneuroendocrinology*, 52:251–260.
- Bayrampour, H, Hapsari, AP& Pavlovic, J. 2018. Barriers to addressing perinatal mental health issues in midwifery settings. *Midwifery*,59(December2017):47–58. <https://doi.org/10.1016/j.midw.2017.12.020>.
- Bazrafshan, M-R, Jahangir, F, Mansouri, A & Kashfi, SH. 2014. Coping strategies in people attempting suicide. *International Journal of High Risk Behaviors and Addiction*, 3(1):1–6. <https://doi.org/10.5812/ijhrba.16265>.
- Bedaso, A, Adams, J, Peng, W & Sibbritt, D. 2021. The relationship between social support and mental health problems during pregnancy: a systematic review and meta-analysis. *Reproductive Health*, 18(1):1-23.
- Beyondblue .2011. *Clinical practice guidelines for depression and related disorders – anxiety, bipolar disorder and puerperal psychosis – in the perinatal period: a guideline for primary care health professionals*. Melbourne: beyondblue: the national depression initiative.
- Biaggi, A, Conroy, S, Pawlby, S & Pariante, CM. 2016. Identifying the women at risk of antenatal anxiety and depression: a systematic review. *Journal of Affective Disorders*, 191:62–77.
- Bikinesi, LT, Mash, R & Joyner, K. 2017. Prevalence of intimate partner violence and associated factors amongst women attending antenatal care at Outapi Clinic, Namibia: a descriptive survey. *African Journal of Primary Health Care and Family Medicine*, 9(1):1–6.
- Biratu, A& Haile, D. 2015. Prevalence of antenatal depression and associated factors among pregnant women in Addis Ababa, Ethiopia: a cross-sectional study. *Reproductive Health*, 12(1): 1–8.

- Birbeck, GL, Wiysonge, CS, Mills, EJ, Frenk, JJ, Zhou, X-N, & Jha, P. 2013. Global health: the importance of evidence-based medicine. *BMC Medicine*, 11(1):1–9.
- Birx, H, Campbell, C, Rowe, C, Gjedde, A, Bauer, WR, Wong, DF & American Psychiatric Association. 2016. Dsm V-tr. *Journal of Nuclear Medicine*, 52:26-37.
- Bitew, T, Keynejad, R, Honikman, S, Sorsdahl, K, Myers, B, Fekadu, A & Hanlon, C.2020. Stakeholder perspectives on antenatal depression and the potential for psychological intervention. *BMC Pregnancy and Childbirth*, 20(1):1–11.
- Bjelica, A, Cetkovic, N, Trinic-Pjevic, A & Mladenovic-Segedi, L. 2018. The phenomenon of pregnancy: psychological view. *Ginekologia Polska*, 89(2):102–106.
<https://doi.org/10.5603/GP.a2018.0017>.
- Blount, AJ, Adams, CR, Anderson-Berry, AL, Hanson, C, Schneider, K & Pendyala, G.2021. Biopsychosocial factors during the perinatal period: Risks, preventative factors, and implications for healthcare professionals. *International Journal of Environmental Research and Public Health*, 18(15): 1-2. <https://doi.org/10.3390/ijerph18158206>.
- Brenman, NF, Luitel, NP, Mall, S & Jordans, MJD. 2014. Demand and access to mental health services: A qualitative formative study in Nepal. *BMC International Health and Human Rights*, 14(1):1–12. <https://doi.org/10.1186/1472-698X-14-22>.
- Brink, H, van der Walt, C & van Rensburg, G. 2012. *Fundamentals of research methodology for health care professionals*. 3rd edition. Lansdowne: Juta.
- Brouwers, MC, Kho, ME, Browman, GP, Burgers, JS, Cluzeau, F, Feder, G, Fervers, B, Graham, ID, Zitzelsberger, L et al. 2017. AGREE II: Advancing guideline development, reporting and evaluation in health care. *CMAJ: Canadian Medical Association Journal*, 182(18):1-32
- Brown, FL, Aoun, M, Taha, K, Steen, F, Hansen, P, Bird, M, Dawson, KS, Jordans, MJD et al. 2020. The Cultural and Contextual Adaptation Process of an Intervention to Reduce Psychological Distress in Young Adolescents Living in Lebanon. *Frontiers in Psychiatry*, 212 (11): 1–16.
- Byatt, N, Levin, LL, Ziedonis, D, Simas, TAM & Allison, J. 2015. Enhancing participation in depression care in outpatient perinatal care settings: a systematic review. *Obstetrics and Gynecology*, 126(5): 1048–1058.
- Cardenas, SI, Morris, AR, Marshall, N, Aviv, EC, Martínez García, M, Sellery, P & Saxbe, DE. 2021.

- Fathers matter from the start: The role of expectant fathers in child development. *Child Development Perspectives*.16 (1): 54-59.
- Cassis, L, Cortès-SaladelaFont, E, Molero-Luis, M, Yubero, D, González, MJ, Ormazabal, A, Fons, C, Jou, C, Montero, R et al. 2015. Review and evaluation of the methodological quality of the existing guidelines and recommendations for inherited neurometabolic disorders Inherited metabolic diseases. *Orphanet Journal of Rare Diseases*, 10(1):1–19.
- Castro e Couto, T, Brancaglioni, MYM, Cardoso, MN, Faria, GC, Garcia, FD, Nicolato, R, Corrêa, H et al. 2016. Suicidality among pregnant women in Brazil: prevalence and risk factors. *Archives of Women's Mental Health*, 19(2):343–348.
- Chinsembu, GMM & Hamunyela, M. 2015. To integrate or not: exploring the prospects and challenges of integrating indigenous knowledge at the University of Namibia. *Indigenous Knowledge of Namibia* edited by KC Chinsembu, A Cheikhoussef, D Mumbengegwi, M Kandawa-Schulz, CD Kasanda and L Kazembe. pp 361–378.
- Christians, F. 2020. Country profile-Primary healthcare and family medicine in Namibia. *African Journal of Primary Health Care and Family Medicine*, 12(1):1–3.
- Chrzan-Dętkoś, M & Walczak-Kozłowska, TZ. 2021. How do new mothers perceive screening for perinatal depression?. *Health Psychology Report*, 9(3):207-216.
- Clarke, K, King, M & Prost, A. 2013. Psychosocial interventions for perinatal common mental disorders delivered by providers who are not mental health specialists in low- and middle-income countries: a systematic review and meta-analysis. *PLoS Medicine*, 10(10):e1001541
- Chojenta, CL, Lucke, JC, Forder, PM & Loxton, DJ. 2016. Maternal health factors as risks for postnatal depression: a prospective longitudinal study. *PLoS One*, 11(1), e0147246.
- Chorwe-Sungani, G & Chipps, J. 2017. A systematic review of screening instruments for depression for use in antenatal services in low-resource settings. *BMC Psychiatry*, 17(1):1–10.
- Chorwe-Sungani, G. 2022. Screening for Antenatal Depression by Midwives in Low Resource Settings in Primary Care Settings in Malawi. *Healthcare Access*, 125. 1.27
- Chowdhary, N, Sikander, S, Atif, N, Singh, N, Ahmad, I, Fuhr, DC, Rahman, A & Patel, V. 2014. The content and delivery of psychological interventions for perinatal depression by non-specialist health workers in low and middle income countries: A systematic review. *Best Practice and Research: Clinical Obstetrics and Gynaecology*, 28(1):113–133.

- Craft, C.2020. *The Perceptions of Health Care Providers of Postpartum Depression, Mothers, and Their Families: A Qualitative Study*. Texas Woman's University.
- Cook, N, Ayers, S & Horsch, A. 2018. Maternal posttraumatic stress disorder during the perinatal period and child outcomes: A systematic review. *Journal of Affective Disorders*, 225:18–31.
- Cox, JL, Holden, JM & Sagovsky, R. 1987. Detection of postnatal depression: development of the 10-item Edinburgh Postnatal Depression Scale. *The British Journal of Psychiatry*, 150(6): 782-786.
- Creswell, JW. 2014. *Educational research: planning, conducting and evaluating qualitative and quantitative research*. 4th edition. London: Pearson.
- Creswell, JW & Poth, CN. 2016. *Qualitative inquiry and research design: choosing among five approaches*. Thousand Oaks, CA: Sage.
- Creswell, JW & Plano-Clark, VL. 2018. *Designing and conducting mixed methods research*. 3rd edition. Thousand Oaks, CA: Sage.
- Cui, Q, Jiang, S & Nie, Y. 2018. *The perinatal mental health project: a critical appraisal of program viability, accessibility and sustainability*. Basel, Switzerland: preprints.org.
- Cuijpers, P, Franco, P, Ciharova, M, Miguel, C, Segre, L, Quero, S & Karyotaki, E. (2023). Psychological treatment of perinatal depression: a meta-analysis. *Psychological medicine*, 53(6), 2596-2608.
- Dadi, AF, Miller, ER, Bisetegn, TA & Mwanri, L. 2020. Global burden of antenatal depression and its association with adverse birth outcomes: an umbrella review. *BMC Public Health*, 20(1):2-16.
- Dagher, RK, Bruckheim, HE, Colpe, LJ, Edwards, E & White, DB. 2021. Perinatal depression: Challenges and opportunities. *Journal of Women's Health*, 30(2):154-159.
- Dhaka, P & Mukwiilongo, AS. 2020. Emotional maturity assessment of children living in residential homes in Namibia. *Emotional and Behavioural Difficulties*, 25(1):3-14.
- Darwin, Z, McGowan, L & Edozien, LC. 2015. Antenatal mental health referrals: review of local clinical practice and pregnant women's experiences in England. *Midwifery*, 31(3): e17–e22.
- Davies, T, Schneider, M, Nyatsanza, M & Lund, C. 2016. "The sun has set even though it is morning": Experiences and explanations of perinatal depression in an urban township, Cape Town. *Transcultural Psychiatry*, 53(3):286-312.

- DeJong, H, Fox, E & Stein, A. 2016. Rumination and postnatal depression: a systematic review and a cognitive model. *Behaviour Research and Therapy*, 82:38-49.
- Delbecq, AL & Van de Ven, AH. 1975. A group process model for problem identification and programme planning. *The Journal of Applied Behavioral Science*, 7(4):466-492.
- Dennis, C. L. 2014. Psychosocial interventions for the treatment of perinatal depression. *Best Practice and Research: Clinical Obstetrics and Gynaecology*, 28(1):97–111.
- Department of Health. 2018. *Clinical practice guidelines: pregnancy care*. Canberra: Australian Department of Health.
- Dizon, JM, Machingaidze, S & Grimmer, K. 2016. To adopt, to adapt, or to contextualise? the big question in clinical practice guideline development. *BMC Research Notes*, 9(1):1–8.
- Dlamini, N, Ntuli, B & Madiba, S. 2021. Perceptions and Experiences of Participating in PMTCT Option B Plus: An Explorative Study on HIV-positive Pregnant Women in Eswatini. *The Open Public Health Journal*, 14(1) :425-434.
- Doyle, M, Carballedo, A & O'Keane, V. 2015. Perinatal depression and psychosis: an update. *BJPsych Advances*, 21(1), 5-14.
- Dominiak, M, Antosik-Wojcinska, AZ, Baron, M, Mierzejewski, P & Swiecicki, L. 2021. Recommendations for the prevention and treatment of postpartum depression. *Ginekologia Polska*, 92(2):153–164.
- Dubovicky, M, Belovicova, K, Csatosova, K & Bogi, E. 2017. Risks of using SSRI / SNRI antidepressants during pregnancy and lactation. *Interdisciplinary Toxicology*, 10(1):30–34.
- Edwards-Jauch, L. 2016. Gender-based violence and masculinity in Namibia: A structuralist framing of the debate. *Journal for Studies in Humanities and Social Sciences*, 5(1):49–62.
- Enătescu, I, Craina, M, Gluhovschi, A, Giurgi-Onocu, C, Hogeia, L, Nussbaum, LA, Enătescu, VR et al. 2021. The role of personality dimensions and trait anxiety in increasing the likelihood of suicide ideation in women during the perinatal period. *Journal of Psychosomatic Obstetrics and Gynecology*, 42(3): 242–252.
- Erasmus, MO, Knight, L & Dutton, J. 2020. Barriers to accessing maternal health care amongst pregnant adolescents in South Africa: a qualitative study. *International Journal of Public Health*,

65(4): 469–476.

Evans, J, Ingram, J, Law, R, Taylor, H, , D, Glynn, J, Hopley, B, Kessler, D, Round, J, Ford, J & Culpin, I. 2021. Interpersonal counselling versus perinatal-specific cognitive behavioural therapy for women with depression during pregnancy offered in routine psychological treatment services: a phase II randomised trial. *BMC psychiatry*, 21 (1):1-23.

Fariás-Antúnez, S, Xavier, MO & Santos, IS. 2018. Effect of maternal postpartum depression on offspring's growth. *Journal of affective disorders*, 228, 143-152.

Fellmeth, G, Plugge, E, Fazel, M, Nosten, S, Oo, MM, Pimanpanarak, M, Phichitpadungtham, Y, Fitzpatrick, R, & McGready, R. 2021. Perinatal depression in migrant and refugee women on the Thai–Myanmar border: does social support matter? *Philosophical Transactions of the Royal Society B*, 376(1827): 20200030.

Fellmeth, G, Plugge, EH, Nosten, S, Oo, MM, Fazel, M, Charunwatthana, P, Nosten, F, Fitzpatrick, R & McGready, R. 2018. Living with severe perinatal depression: a qualitative study of the experiences of labour migrant and refugee women on the Thai-Myanmar border. *BMC Psychiatry*, 18(1):1–13.

Fida, A, Waqas, A & Naveed, S. 2019. Psychosocial interventions for perinatal depression in low and middle income countries. *Pakistan Journal of Public Health*, 9(2):51–53.

Fonseca, A, Gorayeb, R & Canavarro, MC. 2015. Women's help-seeking behaviours for depressive symptoms during the perinatal period: socio-demographic and clinical correlates and perceived barriers to seeking professional help. *Midwifery*, 31(12):1177–1185.

Fonseca, A, Silva, S & Canavarro, MC. 2017. Depression Literacy and Awareness of Psychopathological Symptoms During the Perinatal Period. *JOGNN - Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 46(2):197–208.

Forder, PM, Rich, J, Harris, S, Chojenta, C, Reilly, N, Austin, MP & Loxton, D. 2020. Honesty and comfort levels in mothers when screened for perinatal depression and anxiety. *Women and Birth*, 33(2):e142–e150.

Furtado-Eraso, S, Escalada-Hernández, P & Marín-Fernández, B. 2021. Integrative Review of Emotional Care Following Perinatal Loss. *Western Journal of Nursing Research*, 43(5): 489–504

Gajaria, A & Ravindran, AV. 2018. Interventions for perinatal depression in low and middle-income countries: a systematic review. *Asian Journal of Psychiatry*, 37(7):112–120.

- Garcia, ER & Yim, IS .2017. A systematic review of concepts related to women's empowerment in the perinatal period and their associations with perinatal depressive symptoms and premature birth. *BMC Pregnancy and Childbirth*, 17(2):58-69.
- Gao, L, Xie, W, Yang, X & Chan, SWC. 2015. Effects of an interpersonal-psychotherapy-oriented postnatal programme for Chinese first-time mothers: A randomized controlled trial. *International Journal of Nursing Studies*, 52(1): 22–29.
- Garthus-Niegel, S, Ayers, S, Martini, J, Von Soest, T & Eberhard-Gran, M. 2017. The impact of postpartum post-traumatic stress disorder symptoms on child development: A population-based, 2-year follow-up study. *Psychological Medicine*, 47(1):161–170.
- Gelaye, B, Kajeepeta, S & Williams, MA. 2016. Suicidal ideation in pregnancy: an epidemiologic review. *Archives of Women's Mental Health*, 19(5):741–751.
- Gelaye, B, Rondon, MB, Araya, R & Williams, MA. 2016. Epidemiology of maternal depression, risk factors, and child outcomes in low-income and middle-income countries. *The Lancet Psychiatry*, 3(10):973–982.
- Gentile, S. 2017. Untreated depression during pregnancy: short- and long-term effects in offspring. A systematic review. *Neuroscience*, 342(9):154-166.
- George, LS & Noronha, JA. 2018. Associated risk factors of postnatal depression in South Asian region-a narrative review. *Manipal Journal of Nursing and Health Sciences*, (1): 45-49.
- Ghiara, V. 2020. Disambiguating the role of paradigms in mixed methods research. *Journal of Mixed Methods Research*, 14(1):11-25.
- Green, E. P, Tuli, H, Kwobah, E, Menya, D, Chesire, I, & Schmidt, C. 2018. Developing and validating a perinatal depression screening tool in Kenya blending Western criteria with local idioms: a mixed methods study. *Journal of Affective Disorders*, 228, 49-59.
- Gressier, F, Guillard, V, Cazas, O, Falissard, B, Glangeaud-Freudenthal, NMC & Sutter-Dallay, AL. 2017. Risk factors for suicide attempt in pregnancy and the post-partum period in women with serious mental illnesses. *Journal of Psychiatric Research*, 84:284–291.
- Grove, SK, Burns, N & Gray, JR. 2013. *The practice of nursing research: appraisal, synthesis and generation of evidence*. 7th edition. St Louis, MO: Elsevier Saunders.
- Gujral, S, Aizenstein, H, Reynolds III, CF, Butters, MA, Grove, G, Karp, JF & Erickson, K. I.2019.

- Exercise for depression: A feasibility trial exploring neural mechanisms. *The American Journal of Geriatric Psychiatry*, 27(6):611–616.
- Guo, J, Feng, XL, Wang, XH & van Ijzendoorn, MH. 2020. Coping with COVID-19: exposure to Covid-19 and negative impact on livelihood predict elevated mental health problems in Chinese adults. *International Journal of Environmental Research and Public Health*, 17(11):1–18.
- Gureje, O, Oladeji, BD, Montgomery, AA, Araya, R, Bello, T, Chisholm, D, Groleau, D et al. 2019. High- versus low-intensity interventions for perinatal depression delivered by non-specialist primary maternal care providers in Nigeria: Cluster randomised controlled trial (the EXPONATE trial). *British Journal of Psychiatry*, 215(3):528–535.
- Guy, S, Sterling, BS, Walker, LO & Harrison, TC. 2014. Mental health literacy and postpartum depression: A qualitative description of views of lower income women. *Archives of Psychiatric Nursing*, 28(4):256–262.
- Habbema, JDF, Wilt, TJ, Etzioni, R, Nelson, HD, Schechter, CB, Lawrence, WF, Melnikow, J, Kuntz, KM, Owens, DK. & Feuer, EJ. 2014. Models in the development of clinical practice guidelines. *Annals of Internal Medicine*, 161(11): 812–818.
- Hadi, F, Shirazi, E & Soraya, S. 2019. Perinatal mental health: a public health concern. *International Journal of Fertility and Sterility*, 13(1):86-87.
- Hahn-Holbrook, J, Cornwell-Hinrichs, T & Anaya, I. 2018. Economic and health predictors of national postpartum depression prevalence: a systematic review, meta-analysis, and meta-regression of 291 studies from 56 countries. *Frontiers in Psychiatry*, 248(8):1-23.
- Hamel, C, Lang, E, Morissette, K, Beck, A, Stevens, A, Skidmore, B, Colquhoun, H, LeBlanc, J, Moore, A & Riva, JJ. 2019. Screening for depression in women during pregnancy or the first year postpartum and in the general adult population: a protocol for two systematic reviews to update a guideline of the Canadian Task Force on Preventive Health Care. *Systematic Reviews*, 8(1):1–13.
- Hammen, C. 2018. Risk factors for depression: an autobiographical review. *Annual Review of Clinical Psychology*, 14(1):1-28.
- Hampanda, K, Matenga, TFL, Nkwemu, S, Shankalala, P, Chi, BH, Darbes, LA, Turan, JM, Mutale, W, Bull, S & Abuogi, L. 2021. Designing a couple-based relationship strengthening and health enhancing intervention for pregnant women living with HIV and their male partners in Zambia: interview findings from the target community. *Social Science and Medicine*, 283(5):1-9.

- Hanlon, C, Luitel, NP, Kathree, T, Murhar, V, Shrivasta, S, Medhin, G, Ssebunnya, J, Fekadu, A, Shidhaye, R et al. 2014. Challenges and opportunities for implementing integrated mental health care: a district level situation analysis from five low- and middle-income countries. *PLoS One*, 9(2):1-12.
- Haque, A, Namavar, A & Breene, KA. 2015. Prevalence and risk factors of postpartum depression in middle Eastern/Arab women. *Journal of Muslim Mental Health*, 9(1):65–84.
- Haran, C, van Driel, M, Mitchell, BL & Brodribb, WE. 2014. Clinical guidelines for postpartum women and infants in primary care-a systematic review. *BMC Pregnancy and Childbirth*, 14(1):1–9.
- Haroz, EE, Ritchey, M, Bass, JK, Kohrt, BA, Augustinavicius, J, Michalopoulos, L, Burkey, MD & Bolton, P. 2017. How is depression experienced around the world? A systematic review of qualitative literature. *Social Science and Medicine*, 183 (2017):151–162.
- Hatami, A, Badrani, MR, Kamboo, MS, Jahangirimehr, A & Hemmatipour, A. 2019. An investigation of the relationship of spiritual intelligence and resilience with attitude to fear of childbirth in pregnant women. *Journal of Evolution of Medical and Dental Sciences*, 8(1):24-28.
- Hauck, YL, Kelly, G, Dragovic, M, Butt, J, Whittaker, P & Badcock, J. C. 2015. Australian midwives knowledge, attitude and perceived learning needs around perinatal mental health. *Midwifery*, 31(1): 247–255.
- Haynes-Brown, TK & Fetters, MD. 2021. Using joint display as an analytic process: an illustration using bar graphs joint displays from a mixed methods study of how beliefs shape secondary school teachers' use of technology. *International Journal of Qualitative Methods*, 20:1-14.
- Henkel, A & Shaw, KA. 2021. First trimester abortion care in low-and middle-income countries. *Clinical Obstetrics and Gynecology*, 64(3) 1–10.
- Hentges, RF, Graham, SA, Plamondon, A, Tough, S & Madigan, S. 2021. Bidirectional associations between maternal depression, hostile parenting, and early child emotional problems: findings from the all our families cohort. *Journal of Affective Disorders*, 287:397-404.
- Hides, L, Quinn, C, Stoyanov, S, Kavanagh, D & Baker, A. 2019. Psychological interventions for co-occurring depression and substance use disorders. *Cochrane Database of Systematic Reviews*, (11).
- Higgs, JM, Jensen, G, Loftus, S & Christensen, N. 2019. *Clinical reasoning in the health professions*.

4th edition. **St Louis, MO:** Elsevier.

- Highet, N, Stevenson, AL, Purtell, C & Co, S. 2014. Qualitative insights into women's personal experiences of perinatal depression and anxiety. *Women and Birth*, 27(3):179–184.
- Hill, LM, Maman, S, Groves, AK & Moodley, D. 2015. Social support among HIV-positive and HIV-negative adolescents in Umlazi, South Africa: changes in family and partner relationships during pregnancy and the postpartum period. *BMC Pregnancy and Childbirth*, 15(1):1–9.
- Hirshler, Y, Gemmill, AW & Milgrom, J. 2021. An Australian perspective on treating perinatal depression and anxiety: a brief review of efficacy and evidence-based practice in screening, psychosocial assessment and management. *Annali dell'Istituto superiore di sanita*, 57(1):40-50.
- Honikman, S, Van Heyningen, T, Field, S, Baron, E & Tomlinson, M. 2012. Stepped care for maternal mental health: a case study of the perinatal mental health project in South Africa. *PLoS medicine*, 9(5): p.e1001222.
- Howard, LM, Molyneaux, E, Dennis, CL, Rochat, T, Stein, A & Milgrom, J. 2014. Non-psychotic mental disorders in the perinatal period. *The Lancet*, 384(9956):1775–1788.
- Howard, LM, Ryan, EG, Trevillion, K, Anderson, F, Bick, D, Bye, A, Byford, S, O'Connor, S, Sands, P & Demilew, J. 2018. Accuracy of the Whooley questions and the Edinburgh Postnatal Depression Scale in identifying depression and other mental disorders in early pregnancy. *The British Journal of Psychiatry*, 212(1):50–56.
- Humphrey-Murto, S, Varpio, L, Gonsalves, C & Wood, T J. 2017. Using consensus group methods such as Delphi and Nominal Group in medical education research*. *Medical Teacher*, 39(1):14–19.
- Hunter, DJ, McCallum, J & Howes, D. 2019. Defining Exploratory-Descriptive Qualitative (EDQ) research and considering its application to healthcare. *Journal of Nursing and Health Care (JNHC)*, 4(1):1–7.
- Husain, N, Cruickshank, K, Husain, M, Khan, S, Tomenson, B & Rahman, A. 2012. Social stress and depression during pregnancy and in the postnatal period in British Pakistani mothers: a cohort study. *Journal of Affective Disorders*, 140(3):268-276.
- Hutchens, BF & Kearney, J. 2020. Risk factors for postpartum depression: an umbrella review. *Journal of Midwifery & Women's Health*, 65(1):96-108.

- Hutti, MH, Armstrong, DS, Myers, JA & Hall, LA. 2015. Grief intensity, psychological well-being, and the intimate partner relationship in the subsequent pregnancy after a perinatal loss. *JOGNN Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 44(1):42–50.
- International Confederation of Midwives (ICM). 2010. International confederation of midwives Essential competencies for basic midwifery practice. 1–19. www.internationalmidwives.org.
- Imenda, S. 2014. Is there a conceptual difference between theoretical and conceptual frameworks? *Journal of Social Sciences*, 38(2):185–195
- Indongo, N. 2020. Analysis of factors influencing teenage pregnancy in Namibia. *Medical Research Archives*, 8(6):1-11.
- Islam, MJ, Broidy, L, Baird, K, Rahman, M & Zobair, KM. 2021. Early exclusive breastfeeding cessation and postpartum depression: Assessing the mediating and moderating role of maternal stress and social support. *PloS One*, 16(5): e0251419.
- Iturralde, E, Hsiao, CA, Nkemere, L, Kubo, A, Sterling, SA., Flanagan, T & Avalos, LA. 2021. Engagement in perinatal depression treatment: a qualitative study of barriers across and within racial/ethnic groups. *BMC Pregnancy and Childbirth*, 21(1):1–11.
- Izutsu, T, Tsutsumi, A, Minas, H, Thornicroft, G, Patel, V & Ito, A. 2015. Mental health and wellbeing in the Sustainable Development Goals. *The Lancet Psychiatry*, 2(12):1052–1054.
- Jahan, N, Went, TR, Sultan, W, Sapkota, A, Khurshid, H, Qureshi, IA & Alfonso, M. 2021. Untreated depression during pregnancy and its effect on pregnancy outcomes: a systematic review. *Cureus*, 13(8).
- Jaghargh, VM. & Alizadeh, KH .2017. Determining the predictive factors of fear of childbirth based on personality traits, social support and emotional regulation among nulliparous pregnant mothers in Bandar Abbas. *Journal of Nursing Education*, 6(4):38-47.
- Jaju, S, Al Kharusi, L & Gowri, V. 2015. Antenatal prevalence of fear associated with childbirth and depressed mood in primigravid women. *Indian Journal of Psychiatry*, 57(2):158-161.
- James, S., Van Rooyen, D, & Strümpher, J. 2012. Experiences of teenage pregnancy among Xhosa families. *Midwifery*, 28(2):190–197.
- Jarde, A, Morais, M, Kingston, D, Giallo, R, MacQueen, GM, Giglia, L, Beyene, J, Wang, Y & McDonald, SD. 2016. Neonatal outcomes in women with untreated antenatal depression

- compared with women without depression: a systematic review and meta-analysis. *JAMA Psychiatry*, 73(8):826–837.
- Johnson, RE, Grove, AL & Clarke, A. 2019. Pillar integration process: a joint display technique to integrate data in mixed methods research. *Journal of Mixed Methods Research*, 13(3):301-320.
- Jorm, AF. 2012. Mental health literacy; empowering the community to take action for better mental health. *American Psychologist*, 67(3): 231–243.
- Joshi, D, Shrestha, S & Shrestha, N. 2019. Understanding the antepartum depressive symptoms and its risk factors among the pregnant women visiting public health facilities of Nepal. *PLoS One*, 14(4):e0214992.
- Kafula, MN, Ugburo, E & Kibuule, D. 2020. Consumption of psychotropic medicines at a referral hospital in Namibia: Findings and implications. *African Health Sciences*, 20(2), 1000–1010. <https://doi.org/10.4314/ahs.v20i2.57>
- Kagee, A, Tsai, AC, Lund, C & Tomlinson, M. 2013. Screening for common mental disorders in low resource settings: Reasons for caution and a way forward. *International Health*, 5(1):11–14.
- Kakuma, R, Minas, H, Van Ginneken, N, Dal Poz, MR, Desiraju, K, Morris, JE, Saxena, S & Scheffler, RM. 2011. Human resources for mental health care: Current situation and strategies for action. *The Lancet*, 378(9803):1654–1663.
- Kalmbach, DA, Cheng, P, Ong, JC, Ciesla, JA, Kingsberg, SA, Sangha, R, Swanson, LM, O'Brien, LM, Roth, T & Drake, CL. 2020. Depression and suicidal ideation in pregnancy: exploring relationships with insomnia, short sleep, and nocturnal rumination. *Sleep Medicine*, 65:62–73.
- Kamalak, Z, Köçüç, N, Köçüç, A, Hizli, D, Akçal, B, Kafali, H, Canbal, M & Isaoğlu. 2016. Adolescent pregnancy and depression: Is there an association? *Clinical and Experimental Obstetrics and Gynecology*, 43(3):427–430.
- Kasiye, F. 2021. An overview of mixed and multi method research. *Asian Journal of Research in Business and Management*, 3(2):26-41
- Kathree, T. 2020. *Addressing the treatment gap for perinatal depression within an integrated primary health care model: development and feasibility study in the Dr Kenneth Kaunda District, North West Province*. Doctoral dissertation. Durban: University of KwaZulu-Natal.
- Kendig, S, Keats, JP, Hoffman, MC, Kay, LB, Miller, ES, Moore Simas, TA, Frieder, A et al. 2017. Consensus bundle on maternal mental health: perinatal depression and anxiety. - *Journal of*

Obstetric, Gynecologic, and Neonatal Nursing (JOGNN), 46(2):272–281.

Khalifeh, H, Hunt, IM, Appleby, L & Howard, LM. 2016. Suicide in perinatal and non-perinatal women in contact with psychiatric services: 15 year findings from a UK national inquiry. *The Lancet Psychiatry*, 3(3):233–242.

Khanlari, SAMBB, Ogbo, FA & Eastwood, J. 2019. Re-examination of perinatal mental health policy frameworks for women signalling distress on the Edinburgh Postnatal Depression Scale (EPDS) completed during their antenatal booking-in consultation: a call for population health intervention. *BMC Pregnancy and Childbirth*, 19(1):1-11.

Kiger, ME & Varpio, L. 2020. Thematic analysis of qualitative data: AMEE Guide No. 131. *Medical Teacher*, 42(8):846-854.

Kingston, DE, Biringer, A, McDonald, SW, Heaman, MI, Lasiuk, GC, Hegadoren, KM, McDonald, DD et al. 2015. Preferences for mental health screening among pregnant women: a cross-sectional study. *American Journal of Preventive Medicine*, 49(4):e35–e43.

Kinser, PA & Lyon, DE. 2013 . Major depressive disorder and measures of cellular aging: an integrative review. *Nursing research and practice*, 2013.

Kinser, PA & Lyon, DE. 2014. A conceptual framework of stress vulnerability, depression, and health outcomes in women: potential uses in research on complementary therapies for depression. *Brain and Behavior*, 4(5):665-674.

Kilpatrick, SJ, Papile, LA & Macones, GA. 2017. *Guidelines for perinatal care*. Itasca, IL: American Academy of Pediatrics.

Kisigo, GA, Ngocho, JS, Knettel, BA, Oshosen, M, Mmbaga, BT & Watt, MH. 2020. “At home, no one knows”: A qualitative study of retention challenges among women living with HIV in Tanzania. *PLoS One*, 15(8):1–15.

Kivunja, C & Kuyini, AB. 2017. Understanding and applying research paradigms in educational contexts. *International Journal of Higher Education*, 6(5):26-41.

Kivunja, C. 2018. Distinguishing between theory, theoretical framework, and conceptual framework: A systematic review of lessons from the field. *International journal of higher education*, 7(6), 44-53.

Koenig, HG. 2012. Religion, spirituality, and health: the research and clinical implications. *ISRN Psychiatry*, 2012:1-33.

- Kotz, J, Marriott, R & Reid, C. 2021. The EPDS and Australian Indigenous women: a systematic review of the literature. *Women and Birth*, 34(2):e128-e134.
- Kwan, S. & Haltom, TM. 2018. Mixed Methods in Body and Embodiment Research. In *The Oxford Handbook of the Sociology of Body and Embodiment*. Oxford University Press. DOI: 10.1093/oxfordhb/9780190842475.013.5.
- Langham, E, McCalman, J, Matthews, V, Bainbridge, RG, Nattabi, B, Kinchin, I & Bailie, R. 2017. Social and emotional wellbeing screening for Aboriginal and Torres Strait Islanders within primary health care: a series of missed opportunities? *Frontiers in Public Health*, 5(159):1-9.
- Lara, MA, Navarrete, L, Nieto, L, Barba Martín, JP, Navarro, JL & Lara-Tapia, H. 2015. Prevalence and incidence of perinatal depression and depressive symptoms among Mexican women. *Journal of Affective Disorders*, 175:18-24.
- Lara-Cinisomo, S, Clark, CT & Wood, J. 2018. Increasing diagnosis and treatment of perinatal depression in Latinas and African American women: addressing stigma is not enough. *Women's Health Issues*, 28(3), 201-204.
- Larsen, A, Pintye, J, Bhat, A, Kumar, M, Kinuthia, J, Collins, PY & John-Stewart, G. 2021. Is there an optimal screening tool for identifying perinatal depression within clinical settings of sub-Saharan Africa? *SSM-Mental Health*, 1 (100015):1-9.
- Larsen, CM & Grattan, DR. 2012. Prolactin, neurogenesis, and maternal behaviors. *Brain, Behavior, and Immunity*, 26(2): 201–209.
- Lasater, ME, Beebe, M, Gresh, A, Blomberg, K & Warren, N. 2017. Addressing the Unmet Need for Maternal Mental Health Services in Low- and Middle-Income Countries: Integrating Mental Health Into Maternal Health Care. *Journal of Midwifery and Women's Health*, 62(6): 657–660.
- LeMasters, K, Dussault, J, Barrington, C, Bengtson, A, Gaynes, B, Go, V, Hosseinipour, MC, Kulisewa, K et al. 2020. 'Pain in my heart': Understanding perinatal depression among women living with HIV in Malawi. *PLoS ONE*, 15(6):1–13.
- Leung, R, Cook, M M, Capra, MF & Johnstone, KR. 2022. The contribution of respiratory and hearing protection use to psychological distress in the workplace: a scoping review. *International Archives of Occupational and Environmental Health*, 95(8), 1647-1659.
- Lévesque, S, Boulebsol, C, Lessard, G, Bigaouette, M, Fernet, M & Valderrama, A, 2022. Portrayal of

- domestic violence trajectories during the perinatal period. *Violence against women*, 28(6-7):1542-1564.
- Lewis, S. 2015. Qualitative inquiry and research design: Choosing among five approaches. *Health promotion practice*, 16(4):473-475.
- Li, H, Bowen, A, Bowen, R, Feng, C, Muhajarine, N & Balbuena, L. 2020. Mood instability across the perinatal period: A cross-sectional and longitudinal study. *Journal of Affective Disorders*, 264 (11): 15–23.
- Li, Q, Xue, W, Gong, W, Quan, X, Li, Q, Xiao, L, Xu, D., Caine, ED & Poleshuck, E. L. 2021. Experiences and perceptions of perinatal depression among new immigrant Chinese parents: a qualitative study. *BMC Health Services Research*, 21(1):1-9.
- Lilungwe, M, 2020. *Youth unemployment and property crime in Namibia: A case of SamoraMachel constituency*. Doctoral dissertation. Windhoek: University of Namibia.
- Lincoln, Y & Guba, E. 1985. *Naturalistic inquiry*. Los Angeles: Sage.
- Lomonaco-Haycraft, KC, Hyer, J, Tibbits, B, Grote, J, Stainback-Tracy, K, Ulrickson, C, Lieberman, A, van Bekkum, L & Hoffman MC. 2018. Integrated perinatal mental health care: a national model of perinatal primary care in vulnerable populations. *Primary Health Care Research & Development* 20(e77):1–8.
- Lowe, NK. 2019. What is a pilot study? *Journal of Obstetric, Gynecologic & Neonatal Nursing*, 48(2):117–118.
- Lund, C, Schneider, M, Garman, EC, Davies, T, Munodawafa, M, Honikman, S, Bhana, A et al. 2019. Task-sharing of psychological treatment for antenatal depression in Khayelitsha, South Africa: effects on antenatal and postnatal outcomes in an individual randomised controlled trial. *Behaviour Research and Therapy*, 130:103466.
- Luskin, SI, Khan, SJ, Ernst, C, Habib, S, Fersh, ME & Albertini, ES. 2018. Pharmacotherapy for Perinatal Depression. *Clinical Obstetrics and Gynecology*, 61(3):544–561.
- Lydsdottir, LB, Howard, LM, Olafsdottir, H, Thome, M, Tyrfinngsson, P & Sigurdsson, JF. 2019. The psychometric properties of the Icelandic version of the Edinburgh Postnatal Depression Scale (EPDS) when used prenatal. *Midwifery*, 69: 45–51.
- Mabuza, LH, Govender, I, Ogunbanjo, GA & Mash, B. 2014. African primary care research:

Qualitative data analysis and writing results. *African Journal of Primary Health Care and Family Medicine*, 6(1):1–5.

Madeghe BA, Kogi-Makau W, Ngala S and Kumar M. 2021. Risk factors and experiences of prepartum depression in urban- low-income settlement Nairobi Kenya: a mixed-method study [version 3; peer review: 2 approved] *F1000Research* 2021, 9:1495
<https://doi.org/10.12688/f1000research.27434.3>

Mall, S, Honikman, S, Evans, B, Swartz, L & Lund, C. 2014. The impact of antenatal mental distress on functioning and capabilities: views of health care providers and service users in Cape Town, South Africa. *Disability and Rehabilitation*, 36(13):1092–1099.

Maree, K (Ed). 2016. *First steps in research*. 2nd edition. Pretoria: Van Schaik.

Marcal, KE. 2021. Pathways to adolescent emotional and behavioral problems: an examination of maternal depression and harsh parenting. *Child Abuse & Neglect*, 113, (104917):1-10.

Massae, AF, Larsson, M, Leshabari, S, Mbekenga, C, Pembe, AB & Svanberg, AS. 2021. Predictors of fear of childbirth and depressive symptoms among pregnant women: a cross-sectional survey in Pwani region, Tanzania. *BMC Pregnancy and Childbirth*, 21(1): 1–13.

Maselko, J, Sikander, S, Turner, EL, Bates, LM, Ahmad, I, Atif, N & Rahman, A. 2020. Effectiveness of a peer-delivered, psychosocial intervention on maternal depression and child development at 3 years postnatal: a cluster randomised trial in Pakistan. *The Lancet Psychiatry*, 7(9), 775-787.

Matei, A & Ionescu, CA. 2020. Pregnancy in adolescence: a hallmark of forthcoming perinatal depression? In *Selected Topics in Child and Adolescent Mental Health*. IntechOpen. London.

Mathibe-Neke, JM. 2014. The perception of midwives regarding psychosocial risk assessment during antenatal care. *Health SA Gesondheid*, 19(1):625-626.

McCaul, M, Ernstzen, D, Temmingh, H, Draper, B, Galloway, M & Kredo, T. 2020. Clinical practice guideline adaptation methods in resource-constrained settings: Four case studies from South Africa. *BMJ Evidence-Based Medicine*, 25(6):193–198.

McCauley, M, Brown, A, Ofori, B, & Van den Broek, N. 2019. Correction to: 'I just wish it becomes part of routine care': Healthcare providers' knowledge, attitudes and perceptions of screening for maternal mental health during and after pregnancy: A qualitative study (BMC Psychiatry (2019) 19 (279) DOI: 10.1186/s. *BMC Psychiatry*, 19(1):1–8.

- McMillan, SS, Kelly, F, Sav, A, Kendall, E, King, MA., Whitty, JA & Wheeler, AJ. 2014. Using the nominal group technique: how to analyse across multiple groups. *Health Services and Outcomes Research Methodology*, 14, 92-108.
- McNamara, BC, Cutler, A, Lundsberg, L, Kennedy, HP & Garipey, A. 2018. 'i'm used to doing it by myself: Exploring self-reliance in pregnancy. *BMC Pregnancy and Childbirth*, 18(1): 1–9.
- Mgata, S & Maluka, SO. 2019. Factors for late initiation of antenatal care in Dar es Salaam, Tanzania: A qualitative study. *BMC Pregnancy and Childbirth*, 19(1):1–9.
- Milgrom, J & Gemmill, AW. 2014. Screening for perinatal depression. *Best Practice & Research Clinical Obstetrics & Gynaecology*, 28(1):13–23.
- Miller, S, Abalos, E, Chamillard, M, Ciapponi, A, Colaci, D, Comandé, D, Diaz, V, Geller, S, Hanson, C, Langer et al. 2016. Beyond too little, too late and too much, too soon: a pathway towards evidence-based, respectful maternity care worldwide. *The Lancet*, 388(10056): 2176–2192.
- Mersha, AG, Abebe, SA, Sori, LM & Abegaz, TM. 2018. Prevalence and associated factors of perinatal depression in Ethiopia: a systematic review and meta-analysis. *Depression Research and Treatment*, 2018:1-8.
- Mirabzadeh, A, Dolatian, M, Forouzan, AS, Sajjadi, H, Majd, HA. & Mahmoodi, Z. 2013. Path analysis associations between perceived social support, stressful life events and other psychosocial risk factors during pregnancy and preterm delivery. *Iranian Red Crescent Medical Journal*, 15(6):507-514.
- Ministry of Health and Social Services & ICF International. 2014. *Namibian Demographic and Health Survey 2013*. Windhoek: MOHSS.
- Ministry of Health and Social Services. 2017. *Namibia 2014/15 Health Accounts Report*. Windhoek: MOHSS. September, 1–64.
- Ministry of Health and Social Services. 2018. National study on the prevalence of and interventions in relation to suicide in Namibia. Windhoek: MOHSS.
- Ministry of Health and Social Services. 2020. *National guidelines: antenatal care for a positive pregnancy experience*. Windhoek ,Namibia: MOHSS.
- Ministry of Health and Social Services. 2016. National Guidelines for Antiretroviral Therapy. 5rd Edition .Windhoek ,Namibia: MOHSS.

- Mochache, K, Mathai, M, Gachuno, O, Stoep, A & Kumar, M. 2018. Depression during pregnancy and preterm delivery: A prospective cohort study among women attending antenatal clinic at Pumwani Maternity Hospital. *Annals of General Psychiatry*, 17(1):1–8.
- Mohamed Ibrahim, OH, Ibrahim, RM, Al-Tameemi, NK & Riley, K . 2020. Challenges associated with mental health management: Barriers and consequences. *Saudi Pharmaceutical Journal*, 28(8), 971–976. <https://doi.org/10.1016/j.jsps.2020.06.018>
- Mojahed, A, Alaidarous, N, Kopp, M, Pogarell, A , Thiel, F & Garthus-Niegel, S. 2021. Prevalence of Intimate Partner Violence Among Intimate Partners During the Perinatal Period: A Narrative Literature Review. *Frontiers in Psychiatry*, 12(February):1–17.
- Mokwena, KE. 2021. Neglecting Maternal Depression Compromises Child Health and Development Outcomes, and Violates Children’s Rights in South Africa. *Children*, 8(7) 609:1-11.
- Molenaar, NM, Kamperman, AM, Boyce, P & Bergink, V. 2018. Guidelines of treatment of perinatal depression with antidepressants: an international review. *Australian & New Zealand Journal of Psychiatry*, 52(4):320-327.
- Moore Simas, TA, Huang, MY, Patton, C, Reinhart, M, Chawla, AJ, Clemson, C & Eldar-Lissai, A. 2019. The humanistic burden of postpartum depression: a systematic literature review. *Current Medical Research and Opinion*, 35(3):383–393.
- Mugisha, J, Abdulmalik,J, Hanlon, C, Petersen,I, Lund, C, Upadhaya, N , Ahuja, S, Shidhaye, R, Mntambo, N & Alem, A. 2017. Health systems context (s) for integrating mental health into primary health care in six Emerald countries: a situation analysis. *International Journal of Mental Health Systems*, 11(1), 1–13.
- Munkhondya, BMJ, Munkhondya, TE, Msiska, G, Kabuluzi, E, Yao, J & Wang, H. 2020. A qualitative study of childbirth fear and preparation among primigravid women: The blind spot of antenatal care in Lilongwe, Malawi. *International Journal of Nursing Sciences*, 7(3):303–312.
- Munn, Z, Peters, MDJ, Stern, C, Tufanaru, C, McArthur, A, & Aromataris, E.2018. Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology*, 18(1): 1–7.
- Musyimi, CW, Mutiso, VN, Nyamai, DN, Ebuanyi, I & Ndetei, DM. 2020. Suicidal behavior risks during adolescent pregnancy in a low-resource setting: A qualitative study. *PLoS ONE*, 15(7 July):1–11.
- Nakku, JEM, Okello, ES, Kizza, D, Honikman, S, Ssebunnya, J, Ndyabangi, S, Hanlon, C & Kigozi,

- F. 2016. Perinatal mental health care in a rural African district, Uganda: A qualitative study of barriers, facilitators and needs. *BMC Health Services Research*, 16(1):1-12
- Natamba, BK, Achan, J, Arbach, A, Oyok, TO & Ghosh, S. 2014. Reliability and validity of the center for epidemiologic studies-depression scale in screening for depression among HIV-infected and -uninfected pregnant women attending antenatal services in northern Uganda: a cross-sectional study. *BMC Psychiatry*, 14(1):1-8.
- Negron, R, Martin, A, Almog, M, Balbierz, A, Howell, E. 2013. Social support during the postpartum period: mothers' views on needs, expectations, and mobilization of support. *Matern. Child Health J.* 17 (4), 616–623. <https://doi.org/10.1007/s10995-012-1037-4>
- Newby, JM, Werner-Seidler, A, Black, MJ, Hirsch, CR & Moulds, M. L. 2021. Content and Themes of Repetitive Thinking in Postnatal First-Time Mothers. *Frontiers in Psychology*, 12(February): 1–13
- Ng'oma, M, Bitew, T, Kaiyo-Utete, M, Hanlon, C, Honikman, S & Stewart, RC. 2020. Perinatal mental health around the world: priorities for research and service development in Africa. *BJPsych International*, 17(3):56–59.
- Ng'oma, M, Meltzer-Brody, S, Chirwa, E & Stewart, RC. 2019. "Passing through difficult times": Perceptions of perinatal depression and treatment needs in Malawi: a qualitative study to inform the development of a culturally sensitive intervention. *PLoS One*, 14(6):1–20.
- Ngocho, JS, Watt, MH, Minja, L, Knettel, BA, Mmbaga, BT, Williams, P & Sorsdahl, K. 2019. Depression and anxiety among pregnant women living with HIV in Kilimanjaro region, Tanzania. *PLoS One*, 14(10):1–15.
- National Institute for Health and Care Excellence (NICE). 2018. *Antenatal and Postnatal Mental Health. The NICE Guideline on Clinical Management and Service Guidance*. London: National Institute for Health and Care Excellence.
- Nyatsanza, M, Schneider, M, Davies, T & Lund, C. 2016. Filling the treatment gap: developing a task sharing counselling intervention for perinatal depression in Khayelitsha, South Africa. *BMC Psychiatry*, 16(1):1–12.
- O'Connor, E, Rossom, RC, Henninger, M, Groom, HC & Burda, BU. 2016. Primary care screening for and treatment of depression in pregnant and postpartum women evidence report and systematic review for the US preventive services task force. *JAMA - Journal of the American Medical Association*, 315(4):388–406.
- Ogbo, FA, Eastwood, J, Hendry, A, Jalaludin, B, Agho, KE, Barnett, B & Page, A. 2018. Determinants of antenatal depression and postnatal depression in Australia. *BMC Psychiatry*, 18:1-11.

- O'Hara, MW & Wisner, KL .2014. Perinatal mental illness: Definition, description and aetiology. *Best Practice and Research: Clinical Obstetrics and Gynaecology*, 28(1): 3–12.
- Ohara, M, Okada, T, Aleksic, B, Morikawa, M, Kubota, C, Nakamura, Y, Shiino, T, Yamauchi, A, Uno, Y, Murase, S et al,. 2017. Social support helps protect against perinatal bonding failure and depression among mothers: A prospective cohort study. *Scientific Reports*, 7(1):1–8.
- Ojedokun, UA & Atoi, EN. 2012. The babydumping phenomenon in Nigeria: a study on the perception of market women in Ibadan. *International Journal of Child, Youth and Family Studies*, 3(4):409–425.
- Okine, L, Dako-Gyeke, M, Baiden, P, & Saa-Touh Mort, K. 2020. Exploring the influence of repeat pregnancy on the lives of teenage mothers. *Journal of Human Behavior in the Social Environment*, July 1–18.
- Ola, BA & Atilola, O. 2019. Task-shifted interventions for depression delivered by lay primary health-care workers in low-income and middle-income countries. *The Lancet Global Health*, 7(7): e829-e830.
- Ongeri, L, Wang, V, Otieno, P, Mbui, J, Juma, E, Vander Stoep, A & Mathai, M. 2018. Demographic, psychosocial and clinical factors associated with postpartum depression in Kenyan women. *BMC Psychiatry*, (1): 1–9.
- Osok, J, Kigamwa, P, Stoep, A. Vander, Huang, KY & Kumar, M. 2018. Depression and its psychosocial risk factors in pregnant Kenyan adolescents: a cross-sectional study in a community health centre of Nairobi. *BMC Psychiatry*, 18(1):1–10.
- Packer, CH, Pilliod, RA, Chatroux, LR, Caughey, AB & Valent, AM. 2021. Increased rates of adverse perinatal outcomes in women with gestational diabetes and depression. *The Journal of Maternal-Fetal & Neonatal Medicine*, 34(23), 3862-3866.
- Padmanathan P & De Silva, M .2013. Title: The acceptability and feasibility of task-sharing for mental healthcare in low- and middle-income countries: a systematic review. *Social Science & Medicine*, 97(Nov 2013): 82-86.
- Pal, M. 2023. A lead for integration of perinatal mental health in maternal and child health services. *Int J Community Med Public Health*, 10, 2637-44.
- Patel, V, Saxena, S, Lund, C, Thornicroft, G, Baingana, F, Bolton, P, Chisholm, D, Collins, PY,

- Cooper, JL & Eaton, J. 2018. The Lancet Commission on global mental health and sustainable development. *The Lancet*, 392(10157):1553–1598.
- Patel, V Saxena, S, Lund, C, Kohrt, B, Kieling, C, Sunkel, C & Herrman, H. 2023. Transforming mental health systems globally: principles and policy recommendations. *The Lancet*, 402(10402), 656-666.
- Pearson, A, Jordan, Z & Munn, Z. 2012. Translational science and evidence-based healthcare: a clarification and reconceptualization of how knowledge is generated and used in healthcare. *Nursing Research and Practice*, 2012.
- Peltzer, K, Rodriguez, VJ, Lee, TK. & Jones, D. 2018. Prevalence of prenatal and postpartum depression and associated factors among HIV-infected women in public primary care in rural South Africa: a longitudinal study. *AIDS Care - Psychological and Socio-Medical Aspects of AIDS/HIV*, 30(11):1372–1379.
- Pinar, S, Bedford, H, Ersser, S, & McMillan, D. 2022. Women's experiences of perinatal depression: symptoms, barriers and enablers to disclosure, and effects on daily life and interaction within the family. *Midwifery*, 112, 103389.
- Phiri, TM, Nyamaruze, P & Akintola, O.2021. Stress and coping among unmarried pregnant university students in South Africa. *BMC Pregnancy and Childbirth*, 21(1):1-13.
- Pop, VJM, Truijens, SEM, Spek, V, Wijnen, HA, Van Son, MJM & Bergink, V. 2015. A new concept of maternity blues: Is there a subgroup of women with rapid cycling mood symptoms? *Journal of Affective Disorders*, 177:74–79.
- Polit, DF & Beck, CT. 2017. *Nursing research: generating and assessing evidence for nursing practice*. 10th edition. Philadelphia: Wolters Kluwer.
- Pratico, S. 2019. Implementing a perinatal depression screening and treatment program in an obstetric health department setting. Depression/PraticoFinalPaperReviewed 9_7_19. Jacksonville University.
- Public Health England. 2017. *Mental health in pregnancy, the postnatal period and babies and toddlers*. Report for NHS Lambeth CCG local authority. London: Public Health England.
- Purgato, M, Uphoff, E, Singh, R, ThapaPachya, A, Abdulmalik, J & van Ginneken, N. 2020. Promotion, prevention and treatment interventions for mental health in low- and middle-income countries through a task-shifting approach. *Epidemiology and Psychiatric Sciences*, 29(e150):1-8.

- Rai, S, Pathak, A. & Sharma, I. 2015. Postpartum psychiatric disorders: Early diagnosis and management. *Indian journal of psychiatry*, 57(2) 216–221.
- Rahman, A, Fisher, J, Bower, P, Luchters, S, Tran, T, Yasamy, MT, Saxena, S, & Waheed, W. 2013. Interventions for common perinatal mental disorders in women in low- and middle-income countries: a systematic review and meta-analysis. *Bulletin of the World Health Organization*, 91(8):593-601.
- Rahman, A, Surkan, PJ, Cayetano, CE, Ragwatara, P & Dickson, KE. 2013. Grand challenges: Integrating maternal mental health into maternal and child health programmes. *Plos Med*, 10(5):e100442.
- Ramirez, FD, Bogetz, JF, Kufeld, M & Yee, LM. 2019. Professional bereavement photography in the setting of perinatal loss: A qualitative analysis. *Global Pediatric Health*, (6) 1–12.
- Ranjesh, F, Soltanshahi, Z, Azh, N & Griffiths, M. 2020. Effect of spouse's participation in childbirth preparation classes in the promotion of social support among pregnant women: A field trial. *Social Health and Behavior*, 3(2):55-61.
- Ransing, R, Kukreti, P, Deshpande, S, Godake, S, Neelam, N, Raghuvver, P, Mahadevaiah, M, Kataria, D, Patil, S, Puri, M & Padma, K. 2020. Perinatal depression–knowledge gap among service providers and service utilizers in India. *Asian Journal of Psychiatry*, 47:101822.
- Raymond, NC, Pratt, RJ, Godecker, A, Harrison, PA, Kim, H, Kuendig, J & O'Brien, JM. 2014. Addressing perinatal depression in a group of underserved urban women: A focus group study. *BMC Pregnancy and Childbirth*, 14(1):1-7.
- Reilly, N, Kingston, D, Loxton, D, Talcevska, K & Austin, MP. 2020. A narrative review of studies addressing the clinical effectiveness of perinatal depression screening programs. *Women and Birth*, 33(1):51–59.
- Reyes, AM, Akanyirige, PW, Wishart, D, Dahdouh, R., Young, MR., Estrada, A, Ward, C, Cruz Alvarez, C, Beestrum, M & Simon, MA. 2021. Interventions addressing social needs in perinatal care: a systematic review. *Health Equity*, 5(1):100–118.
- Riva, JJ, Malik, KM, Burnie, SJ, Endicott, AR & Busse, JW. 2012. What is your research question? An introduction to the PICOT format for clinicians. *The Journal of the Canadian Chiropractic Association*, 56(3), 167.
- Rochat, TJ, Tomlinson, M, Bärnighausen, T, Newell, ML & Stein, A. 2011. The prevalence and clinical

- presentation of antenatal depression in rural South Africa. *Journal of Affective Disorders*, 135(1–3):362–373.
- Ruyak, SL & Qeadan, F. 2018. Use of the Antenatal Risk Questionnaire to assess psychosocial risk factors associated with risk for postpartum depression: a pilot study. *Journal of Midwifery & Women's Health*, 63(5):578-583.
- Ruzibiza, Y. 2021. 'They are a shame to the community stigma, school attendance, solitude and resilience among pregnant teenagers and teenage mothers in Mahama refugee camp, Rwanda. *Global Public Health*, 16(5):763–774.
- San Martin Porter, MA, Betts, K, Kisely, S, Pecoraro, G & Alati, R. 2019. Screening for perinatal depression and predictors of underscreening: findings of the Born in Queensland study. *Medical Journal of Australia*, 210(1): 32–37.
- Sangsawang, B, Deoisres, W, Hengudomsub, P. & Sangsawang, N. 2022. Effectiveness of psychosocial support provided by midwives and family on preventing postpartum depression among first-time adolescent mothers at 3-month follow-up: A randomised controlled trial. *Journal of Clinical Nursing*, 31(5-6), 689-702.
- Scime, NV, Swansburg, RM, Kromm, SK, Metcalfe, A, Leitch, D & Chaput., KH. 2019. National analysis of risk assessment content in prenatal records across Canada. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, 48(5):507-515.
- Sarikhani, Y, Bastani, P, Rafiee, M, Kavosi, Z & Ravangard, R. 2019. Key barriers to the provision and utilization of mental health services in low- and middle-income countries: a scope study. *Community Mental Health Journal*, 57(5):836-852.
- Shatilwe, JT, Hlongwana, KW & Mashamba-Thompson, TP. 2021. Pregnant adolescents and nurses perspectives on accessibility and utilization of maternal and child health information in Ohangwena Region, Namibia. *BMC Pregnancy and Childbirth*, 22(1):284
- Sheeba, B, Nath, A, Metgud, CS, Krishna, M, Venkatesh, S, Vindhya, J & Murthy, GV. 2019. Prenatal depression and its associated risk factors among pregnant women in Bangalore: a hospital-based prevalence study. *Frontiers in Public Health*, 7:1–9.
- Shin, EK, LeWinn, K, Bush, N, Tylavsky, FA, Davis, RL & Shaban-Nejad, A. 2019. Association of maternal social relationships with cognitive development in early childhood. *JAMA Network Open*, 2(1): e186963–e186963.

- Slomian, J, Emonts, P, Vigneron, L, Acconcia, A, Glowacz, F, Reginster, JY, Oumourgh, M, Bruy`ere, O. 2017. Identifying maternal needs following childbirth: a qualitative study among mothers, fathers and professionals. *BMC Pregnancy Childbirth* 17 (1), 213. <https://doi.org/10.1186/s12884-017-1398-1>.
- Sim, J, Saunders, B, Waterfield, J & Kingstone, T. 2018. Can sample size in qualitative research be determined a priori? *International Journal of Social Research Methodology*, 21(5):619-634.
- Simons, HR, Thorpe, LE, Jones, HE, Lewis, JB, Tobin, JN & Ickovics, JR. 2020. Perinatal depressive symptom trajectories among adolescent women in New York City. *Journal of Adolescent Health*, 67(1): 84–92.
- Siu, AL, Bibbins-Domingo, K, Grossman, DC, Baumann, LC, Davidson, KW, Ebell, M, García, FAR, Gillman, M, Herzstein, J, Kemper, AR et al. 2016. Screening for depression in adults: US preventive services task force recommendation statement. *Journal of the American Medical Association (JAMA)*, 315(4):380-387.
- Smith-Nielsen, J, Egmoose, I, Wendelboe, KI, Steinmejer, P, Lange, T & Vaever, MS. 2021. Can the Edinburgh Postnatal Depression Scale-3A be used to screen for anxiety? *BMC Psychology*, 9(1):1-11.
- Smith, MS, Lawrence, V, Sadler, E & Easter, A. 2019. Barriers to accessing mental health services for women with perinatal mental illness: systematic review and meta-synthesis of qualitative studies in the UK. *BMJ Open*, 9(1):e024803.
- Staller, K. M. 2021. Big enough? Sampling in qualitative inquiry. *Qualitative Social Work*, 20(4), 897-904.
- Stewart, RC, Umar, E, Tomenson, B & Creed, F. 2013. Validation of screening tools for antenatal depression in Malawi: a comparison of the Edinburgh postnatal depression scale and self reporting questionnaire. *Journal of Affective Disorders*, 150(3):1041–1047.
- Stiftung, FE. 2014. *Working for social democracy in Namibia*. Windhoek, Namibia: John Meinert. p192
- Spedding, MF. 2017. *Perinatal psychological distress in the South African context: the road to task-shifting evidence-based interventions*. Cape Town: University of Cape Town.
- Stokes, T, Shaw, EJ, Camosso-Stefinovic, J, Imamura, M, Kanguru, L & Hussein, J. 2016. Barriers and enablers to guideline implementation strategies to improve obstetric care practice in low-and middle-income countries: a systematic review of qualitative evidence. *Implementation Science*, 11(1):1–10.

- Stuart, S & Koleva, H. 2014. Psychological treatments for perinatal depression. *Best Practice and Research: Clinical Obstetrics and Gynaecology*, 28(1): 61–70.
- Sutter-Dallay, A-L, Glangeaud-Freudenthal, NM-C, Guedeney, A & Riecher-Rössler, A. 2015. *Joint care of parents and infants in perinatal psychiatry*. Basel: Springer International.
- Szpunar, MJ & Parry, BL. 2018. A systematic review of cortisol, thyroid-stimulating hormone, and prolactin in peripartum women with major depression. *Archives of Women's Mental Health*, 21(2): 149–161.
- Tachibana, Y, Koizumi, N, Akanuma, C, Tarui, H, Ishii, E, Hoshina, T, Suzuki, A, Asano, A., Sekino, S & Ito, H. 2019. Integrated mental health care in a multidisciplinary maternal and child health service in the community: the findings from the Suzaka trial. *BMC Pregnancy and Childbirth*, 19(1):1–11.
- Terry, G, Hayfield, N, Clarke, V, & Braun, V. 2017. Thematic analysis. *The SAGE handbook of qualitative research in psychology*, 2, 17-37.
- Tsai, AC, Scott, JA, Hung, K.J, Zhu, JQ & Matthews, LT. 2013. Reliability and validity of instruments for assessing perinatal depression in African settings. *PloS One*, 8(12):1-12.
- Thompson, O & Ajayi, I. 2020. Prevalence of antenatal depression and associated risk factors among pregnant women attending antenatal clinics in Abeokuta North Local Government Area, Nigeria. *Depression Research and Treatment*, 2016. Rawal Medical Journal, 45(2):434-438.
- Thornton, T. 2017. Cross-cultural psychiatry and validity in DSM-5. In *The Palgrave handbook of sociocultural perspectives on global mental health* edited by RG White, S Jain, DMR Orr and UM Read. New York: Springer. pp 51-69.
- Trifu, S, Vladuti, A & Popescu, A. 2019. The neuroendocrinological aspects of pregnancy and postpartum depression. *Acta Endocrinologica (Bucharest)*, 15(3):410-415.
- Tuksanawes, P, Kaewkiattikun, K & Kerdcharoen, N. 2020. Prevalence and associated factors of antenatal depressive symptoms in pregnant women living in an urban area of thailand. *International Journal of Women's Health*, 12:849–858.
- US Department of State. 2018. International Religious Freedom Report 2018. Washington, D.C.: US Department of State.
- USAID. 2016. *National guidelines for HIV prevention, treatment and care on monitoring and evaluation of HIV response*. Washington, DC: USAID.

- Van Ginneken, N, Tharyan, P, Lewin, S, Rao, GN, Meera, SM, Pian, J, Chandrashekar, S & Patel, V. Non-specialist health worker interventions for the care of mental, neurological and substance-abuse disorders in low- and middle-income countries. *Cochrane Database of Systematic Reviews* 2013(11):CD009149.
- Ventevogel, P, Jordans, M, Reis, R & De Jong, J. 2013. Madness or sadness? Local concepts of mental illness in four conflict-affected African communities. *Conflict and Health*, 7(1):1-16.
- Verschueren, KJC, Kodan, LR, Brinkman, TK, Paidin, RR, Henar, SS, Kanhai, HHH, Browne, JL, Rijken, MJ & Bloemenkamp, KWM. 2019. Bottom-up development of national obstetric guidelines in middle-income country Suriname. *BMC Health Services Research*, 19(1):1-12.
- Viveiros, CJ & Darling, EK. 2018. Barriers and facilitators of accessing perinatal mental health services: the perspectives of women receiving continuity of care midwifery. *Midwifery*, 65(January): 8–15.
- Wang, TH, Pai, LW, Tzeng, YL, Yeh, TP & Teng, YK. 2021. Effectiveness of nurses and midwives-led psychological interventions on reducing depression symptoms in the perinatal period: A systematic review and meta-analysis. *Nursing Open*, 8(5), 2117-2130.
- Waqas, A, Koukab, A, Meraj, H, Dua, T, Chowdhary, N, Fatima, B & Rahman, A. 2022. Screening programs for common maternal mental health disorders among perinatal women: report of the systematic review of evidence. *BMC psychiatry*, 22(1), 54.
- Welch, VA, Petticrew, M, O'Neill, J, Waters, E, Armstrong, R, Bhutta, ZA, Francis, D et al. 2013. Health equity: evidence synthesis and knowledge translation methods. *Systematic Reviews*, 2(43):1-10.
- Weller, SC, Vickers, B, Bernard, HR, Blackburn, AM, Borgatti, S, Gravlee, CC & Johnson, JC. 2018. Open-ended interview questions and saturation. *PloS One*, 13(6):e0198606.
- Weobong, B, Soremekun, S, Ten Asbroek, AH, Amenga-Etego, S, Danso, S, Owusu-Agyei, S, Prince, M & Kirkwood, BR. 2014. Prevalence and determinants of antenatal depression among pregnant women in a predominantly rural population in Ghana: the DON population-based study. *Journal of Affective Disorders*, 165(July):1–7.
- Wesseloo, R. 2018. Bipolar Spectrum Disorder During Pregnancy and the Postpartum Period. Research, Aarhus University, Denmark

- Williams, CJ, Turner, KM, Burns, A, Evans, J & Bennert, K. 2016. Midwives and women's views on using UK recommended depression case finding questions in antenatal care. *Midwifery*, 35:39-46.
- Woody, CA, Ferrari, AJ, Siskind, DJ, Whiteford, HA & Harris, MG. 2017. A systematic review and meta-regression of the prevalence and incidence of perinatal depression. *Journal of Affective Disorders*, 219:86–92.
- Woolary, LD. 2022. *Nursing Staff Education on Depression and Screening in the Perinatal Period* (Doctoral dissertation, Walden University).
- World Health Organisation (WHO) .2016. *Global strategy for women's, children's and adolescents' health 2016-2030*. New York: WHO.
- World Health Organization (WHO). 2016. Preventing suicide: a global imperative. Geneva: WHO.
- World Health Organization (WHO). 2019. Preventing unsafe abortion: evidence brief. Geneva: WHO.
- World Health Organization (WHO). 2019. Abortion. Geneva: WHO.
- World Health Organization (WHO). 2021. Live life: guide on suicide prevention. Geneva: WHO.
- World Health Organization (WHO). 2022. Abortion care guidelines. Geneva: WHO.
- World Health Organization (WHO). 2022. *Guide for integration of perinatal mental health in maternal and child health services*. New York: WHO.
- Xue, WQ, Cheng, KK, Xu, D, Jin, X & Gong, WJ. 2020. Uptake of referrals for women with positive perinatal depression screening results and the effectiveness of interventions to increase uptake: a systematic review and meta-analysis. *Epidemiology and Psychiatric Sciences* 29(e143):1-17.
- Yakubu, I & Salisu, WJ. 2018. Determinants of adolescent pregnancy in sub-Saharan Africa: a systematic review. *Reproductive health*, 15(1), 1-11.
- Zia, S, Khan, S, Hassan, D, Ali, MI, Shamail, F, Zubair, RE & Zia, F. 2023. Burden of Depression and its Correlates among Patients of Skin Diseases: A Snap-shot from Dermatology Outpatient Clinic in Karachi, Pakistan. *Liaquat National Journal of Primary Care*, 5(2), 73-81.
- Zhao, Y, Kane, I, Wang, J, Shen, B, Luo, J & Shi, S. 2015. Combined use of the postpartum depression screening scale (PDSS) and Edinburgh postnatal depression scale (EPDS) to identify antenatal depression among Chinese pregnant women with obstetric complications. *Psychiatry*

Research, 226(1):113-119.

Zhang, Y, Muyiduli, X, Wang, S, Jiang, W, Wu, J, Li, M, Mo, M, Jiang, S, Wang, Z, Shao, B, Shen, Y & Yu, Y. 2018. Prevalence and relevant factors of anxiety and depression among pregnant women in a cohort study from south-east China. *Journal of Reproductive and Infant Psychology*, 36(5):519–529.

Zhong, Q, Y, Gelaye, B, Smoller, JW, Avillach, P, Cai, T & Williams, MA. 2018. Adverse obstetric outcomes during delivery hospitalizations complicated by suicidal behavior among US pregnant women. *PLoS One*, 13(2):1–13.

ANNEXURE A: UNIVERSITY OF PRETORIA ETHICAL CLEARANCE



Faculty of Health Sciences

Faculty of Health Sciences **Research Ethics Committee**

Institution: The Research Ethics Committee, Faculty Health Sciences, University of Pretoria complies with ICH-OCP guidelines and has US Federal wide Assurance.

- FWA 00002567, Approved dd 18 March 2022 and Expires 18 March 2027.
- IORG #: IDRG0001762 CMB No. 0990-0270 Approved for use through June 30, 2025 and Expires 07/29/2026.

9 November 2023

Approval Certificate Annual Renewal

Dear Ms SK Hatupopi,

Ethics Reference No.: 49/2021 – Line 1

Title: GUIDELINES TO MANAGE PERINATAL DEPRESSION IN NAMIBIA

The **Annual Renewal** as supported by documents received between 2023-10-12 and 2023-11-08 for your research, was approved by the Faculty of Health Sciences Research Ethics Committee on 2023-11-08 as resolved by its quorate meeting.

Please note the following about your ethics approval:

- Renewal of ethics approval is valid for 1 year, subsequent annual renewal will become due on 2024-11-09.
- The Research Ethics Committee (REC) must monitor your research continuously. To this end, you must submit as may be applicable for your kind of research:
 - a) annual reports;
 - b) reports requested *ad hoc* by the REC;
 - c) all visitation and audit reports by a regulatory body (e.g. the HPCSA, FDA, SAHPRA) within 10 days of receiving one;
 - d) all routine monitoring reports compiled by the Clinical Research Associate or Site Manager within 10 days of receiving one.
- The REC may select your research study for an audit or a site visitation by the REC.
- The REC may require that you make amendments and take corrective actions.
- The REC may suspend or withdraw approval.
- Please remember to use your protocol number (49/2021) on any documents or correspondence with the Research Ethics Committee regarding your research.

Ethics approval is subject to the following:

- The ethics approval is conditional on the research being conducted as stipulated by the details of all documents submitted to the Committee. In the event that a further need arises to change who the investigators are, the methods or any other aspect, such changes must be submitted as an Amendment for approval by the Committee.

We wish you the best with your research.

Yours sincerely

On behalf of the FHS REC, Dr R Sommers

MBChB, MMed (Int), MPharmMed, PhD

Deputy Chairperson of the Faculty of Health Sciences Research Ethics Committee, University of Pretoria

The Faculty of Health Sciences Research Ethics Committee complies with the SA National Act 61 of 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 and 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes, Second Edition 2015 (Department of Health).

Research Ethics Committee
Room 4-60, Level 4, Tswelopele Building
University of Pretoria, Private Bag X323
Gazina 0031, South Africa
Tel +27 (0)12 356 3084
Email: doepeka.behal@up.ac.za
www.up.ac.za

Fakulteit Geesondheidswetenskappe
Lefapha la Disaenso la Maphelo

ANNEXURE B: MINISTRY OF HEALTH AND SOCIAL SERVICES PERMISSION LETTER



REPUBLIC OF NAMIBIA

MINISTRY OF HEALTH AND SOCIAL SERVICES

Ministerial Building
Harvey Street
Private Bag 13198, Windhoek

OFFICE OF THE EXECUTIVE DIRECTOR

Tel: No: 061 -203 2507
Fax No: 061-222 558
Andreas.Shipanga@mhss.gov.na

Ref: 17/3/SKH
Enquiries: Mr. A. Shipanga

Date: 27 April 2021

Ms. Saara K. Hatupopi
PO Box 98533
Windhoek

Dear Ms. Hatupopi

Re: Developing Guidelines to Manage Perinatal Depression in Namibia.

1. Reference is made to your application to conduct the above-mentioned study.
2. The proposal has been evaluated and found to have merit.
3. **Kindly be informed that permission to conduct the study has been granted under the following conditions:**
 - 3.1 The data to be collected must only be used for academic purpose;
 - 3.2 No other data should be collected other than the data stated in the proposal;
 - 3.3 Stipulated ethical considerations in the protocol related to the protection of Human Subjects should be observed and adhered to, any violation thereof will lead to termination of the study at any stage;
 - 3.4 A quarterly report to be submitted to the Ministry's Research Unit;
 - 3.5 Preliminary findings to be submitted upon completion of the study;
 - 3.6 Final report to be submitted upon completion of the study;
 - 3.7 Separate permission should be sought from the Ministry for the publication of the findings.
4. All the cost implications that will result from this study will be the responsibility of the applicant and **not** of the MoHSS.

Yours sincerely,


BEN NANGOMBE

EXECUTIVE DIRECTOR



All official correspondence must be addressed to the Executive Director.



ANNEXURE C: WOMEN WITH PERINATAL DEPRESSION PARTICIPANT INFORMED CONSENT

STUDY TITLE: GUIDELINES TO MANAGE PERINATAL DEPRESSION IN NAMIBIA

Principal Investigator: SAARA KERTHU HATUPOPI

Institution: University of Pretoria

DAYTIME AND AFTER-HOURS TELEPHONE NUMBER(S):

Daytime numbers: Tel: 061-239016

Afterhours: +264812981536

DATE AND TIME OF POST INFORMED CONSENT DISCUSSION:

			:
Date	Month	Year	Time

Dear Participant

Dear date of consent procedure/...../.....

1) INTRODUCTION

You are invited to volunteer for a research study. This information leaflet is to help you to decide if you would like to participate. Before you agree to take part in this study you should fully understand what is involved. If you have any questions, which are not fully explained in this leaflet, do not hesitate to ask the investigator. You should not agree to take part unless you are completely happy about all the procedures involved. Please take note that no remuneration will be awarded for participation in this study.

2) THE NATURE AND PURPOSE OF THIS STUDY: GUIDELINES TO MANAGE PERINATAL DEPRESSION IN NAMIBIA

You are invited to take part in a research study. You are considered as being a very important source of information and are thus requested to volunteer to take part in this study. The following are proposed to achieve the aim of this study:

- To explore and describe the needs of women with perinatal depression in Namibia.

3) EXPLANATION OF PROCEDURES AND WHAT WILL BE EXPECTED FROM PARTICIPANTS

We are developing guidelines to manage perinatal depression. The guidelines are to ensure that perinatal depression is properly detected, referred and managed with right interventions. The knowledge and experience you will share would be an asset to us in developing guidelines for other women with a similar condition. If you decide to participate, we will not take more than an hour for this study.

4) PROCEDURES

You will be asked to undergo an oral interview in a private room within this hospital. This study involves semi-structured interviews guided by an interview schedule. The researcher will ask you some questions about needs of women with perinatal depression. The interview will be recorded with your permission, notes will be taken also just review the answers and ask more question as the need to clarify arises. The recording will not be played or broadcasted for anyone in public such as radio, TV, newspaper. Please wear your COVID-19 protective mask.

5) POSSIBLE RISKS AND DISCOMFORT INVOLVED

There may be some risks from participating in this study because all human interactions and talking about self-carry some amount of risks. We will nevertheless minimize such risks and act promptly to assist you if you experience any discomfort, psychological or otherwise during the process of your participation in this study. Where needed, an appropriate referral will be made to a suitable professional such as the hospital psychologists for further assistance or intervention.

6) POSSIBLE BENEFITS OF THIS STUDY.

Although you will not benefit directly from the study, the results of the study will enable us to develop guidelines to manage perinatal depression. This research is not designed to help you personally, but the results may help the investigator learn more about the needs of women with perinatal depression. In the future women might benefit from this study through screening ,early detection and management of perinatal depression This may help health professionals to develop effective interventions for perinatal depression which affect women during perinatal period.

7) COMPENSATION

You will not be paid to take part in the study.

8) YOUR RIGHTS AS A RESEARCH PARTICIPANT

Your participation in this study is entirely voluntary. You will be allowed to withdraw from participation in the study or stop at any time without giving any reason. You will not incur any penalty from withdrawal from the study.

9) ETHICAL APPROVAL

The Faculty of Health Sciences' Research Ethics Committee at the University of Pretoria , in South Africa and Ministry of Health and Social Services in Namibia has given written approval for this study. The study has been structured in accordance with the Declaration of Helsinki (last updated: October 2013), which deals with the recommendations guiding nurses in research involving humans. A copy of the Declaration may be obtained from the investigator should you wish to review it. Please feel free to contact the Research Ethics Committee, if you need any clarification pertaining to ethical approval. Faculty of Health Sciences University of Pretoria's Office: Tel: 012 356 3084 or 012 356 3085.

10) INFORMATION

If you have any questions concerning your participation in this study, you should feel free to contact the principal researcher:

Email address: skhatupopi@gmail.com

Or contact my supervisors : Prof M Yazbek 082 576 3558
: Prof A van der Wath

11) CONFIDENTIALITY

All records obtained whilst in this study will be regarded as confidential. Your input into this study will also be kept strictly confidential. Results and reports will be published in accredited scientific journals and presented in such a manner that your identification as a participant will remain anonymous.

12) CONSENT TO PARTICIPATE IN THIS STUDY

The content and meaning of this information leaflet have been explained to me. I agree that the person asking my consent to take part in this study has told me about the nature, process, risks, discomforts and benefits of the study. I have also received, read and understood the above written information (Information Leaflet and Informed Consent) regarding the study. I am aware that the results of the study, including personal details, will be anonymously managed into study reports. I am participating willingly. I have had time to ask questions and have no objection to participate in the study. I understand that there is no penalty should I wish to discontinue with the study and my withdrawal will not affect me in any way. I hereby volunteer to take part in this study. I have received a copy to sign this informed consent agreement.

.....
Participant's name (Please Print)	Date
.....
Participant's signature	Date
.....
Investigator's name (Please Print)	Date
.....
Investigator's signature	Date
.....
Witness's name	Date
.....
Witness's signature	

ANNEXURE D: HEALTHCARE PROVIDERS INFORMED CONSENT DOCUMENT

STUDY TITLE: GUIDELINES TO MANAGE PERINATAL DEPRESSION IN NAMIBIA

Principal Investigator: SAARA KERTHU HATUPOPI

Institution: University of Pretoria

DAYTIME AND AFTER-HOURS TELEPHONE NUMBER(S):

Daytime numbers: Tel: 061-239016

Afterhours: +264812981536

DATE AND TIME OF POST INFORMED CONSENT DISCUSSION:

			:
Date	Month	Year	Time

Dear Participant

Dear date of consent procedure/...../.....

1) INTRODUCTION

You are invited to volunteer for a research study. This information leaflet is to help you to decide if you would like to participate. Before you agree to take part in this study you should fully understand what is involved. If you have any questions, which are not fully explained in this leaflet, do not hesitate to ask the investigator. You should not agree to take part unless you are completely happy about all the procedures involved. Please take note that no remuneration will be awarded for participation in this study.

2) THE NATURE AND PURPOSE OF THIS STUDY: GUIDELINES TO MANAGE PERINATAL DEPRESSION IN NAMIBIA

You are aware that mental health matter is not part of perinatal care in Namibia and women are not being screened for depression during the perinatal period. You are invited to take part in a research study. Since you all have been involved in providing perinatal service delivery in different ways, today I have come here to learn about your perception and experience working with women with mental health problems especially perinatal depression and the barriers you are facing towards it. You are considered as being a very important source of information and are thus requested to volunteer to take part in this study. The following are proposed to achieve the aim of this study:

The objectives are:

- To explore and describe perceptions/experiences of midwives about perinatal depression in Namibia,
- To explore and describe the barriers to manage perinatal depression in Namibia.

3) EXPLANATION OF PROCEDURES AND WHAT WILL BE EXPECTED FROM PARTICIPANTS

You will be asked to undergo an oral interview in a private room within this hospital. The interview will last for 30 minutes of your time. This study involves semi-structured interviews guided by an interview schedule. The researcher will ask you about midwives' understanding about perinatal depression and barriers preventing you to screen for perinatal depression. The interview may be recorded with your permission, notes will be taken also just review the answers and ask more question as the need to clarify arises.

4) POSSIBLE RISKS AND DISCOMFORT INVOLVED

There may be some emotional risks from participating in this study because all human interactions and talking about self or others carry some amount of risks. We will nevertheless minimize such risks and act promptly to assist you if you experience any discomfort, psychological or otherwise during the process of your participation in this study. Where necessary, an appropriate referral will be made to a suitable professional for further assistance or intervention.

5) POSSIBLE BENEFITS OF THIS STUDY.

Although you will not benefit directly from the study, the results of the study will enable us to develop perinatal guidelines to manage perinatal depression.

6) COMPENSATION

You will not be paid to take part in the study.

7) YOUR RIGHTS AS A RESEARCH PARTICIPANT

Your participation in this study is entirely voluntary. You will be allowed to withdraw from participation in the study or stop at any time without giving any reason. You will not incur any penalty from withdrawal from the study.

8) ETHICAL APPROVAL

The Faculty of Health Sciences' Research Ethics Committee at the University of Pretoria, in South Africa and Ministry of Health and Social Services in Namibia has given written approval for this study. The study has been structured in accordance with the Declaration of Helsinki (last updated: October 2013), which deals with the recommendations guiding nurses in research involving humans. A copy of the Declaration may be obtained from the investigator should you wish to review it. Please feel free to contact the Research Ethics Committee, if you need any clarification pertaining to ethical approval. Faculty of Health Sciences University of Pretoria's Office: Tel: 012 356 3084 or 012 356 3085.

9) INFORMATION

If you have any questions concerning your participation in this study, you should feel free to contact the principal researcher:

Email address: skhatupopi@gmail.com

Or contact my supervisors

: Prof M Yazbek

082 576 3558

: Prof A van der Wath

10) CONFIDENTIALITY

The researchers undertake to protect your identity and the nature of your contribution. To ensure your anonymity, the interview will not contain information that may personally identify you. Your name will not be included on the interview and other collected data. A code will be placed on the interview. They will also be informed that all hard copies of data collected will be locked in a cabinet at University of Pretoria and will be incinerated after 15 years. As for electronic data, it will be secured by a password known only to the researcher and would be deleted from the storage device after 15 years. Your responses in this interview will not be linked to your identification particulars by reporting aggregated data only in our research report. Results and reports will be published in accredited scientific journals and presented in such a manner that your identification as a participant will remain anonymous.

11) CONSENT TO PARTICIPATE IN THIS STUDY

The content and meaning of this information leaflet have been explained to me. I agree that the person asking my consent to take part in this study has told me about the nature, process, risks, discomforts and benefits of the study. I have also received, read and understood the above written information (Information Leaflet and Informed Consent) regarding the study. I am aware that the results of the study, including personal details, will be anonymously managed into study reports. I am participating willingly. I have had time to ask questions and have no objection to participate in the study. I understand that there is no penalty should I wish to discontinue with the study and my withdrawal will not affect me in any way. I hereby volunteer to take part in this study.

I have received a copy to sign this informed consent agreement.

.....
Participant's name (Please Print)	Date
.....
Participant's signature	Date
.....
Investigator's name (Please Print)	Date
.....
Investigator's signature	Date
.....
Witness's name	Date
.....
Witness's signature	

ANNEXURE E: STAKEHOLDERS PARTICIPANT INFORMATION AND INFORMED CONSENT

STUDY TITLE: GUIDELINES TO MANAGE PERINATAL DEPRESSION IN NAMIBIA

Principal Investigator: SAARA KERTHU HATUPOPI

Institution: University of Pretoria

DAYTIME AND AFTER-HOURS TELEPHONE NUMBER(S):

Daytime numbers: Tel: 061-239016

Afterhours: +264812981536

DATE AND TIME OF POST INFORMED CONSENT DISCUSSION:

			:
Date	Month	Year	Time

Dear Participant

Dear date of consent procedure/...../.....

1) AGENDA FOR THE WORKSHOP

GUIDELINES TO MANAGE PERINATAL DEPRESSION IN NAMIBIA

2) EVIDENCE FOR GUIDELINES

The Government of Namibia considers perinatal depression as a priority condition, however, guideline's for perinatal depression is lacking. I would like to share with you the findings and the guidelines that was previously generated and may be helpful for us to consider as we progress in today's session. In this research study, a series of studies were conducted to generate evidences, which could be used to inform the development of a perinatal guidelines.

3) DRAFT GUIDELINES TO MANAGE PERINATAL DEPRESSION

The guidelines seek to facilitate provision of maternal mental health care that is not readily accessible to women during perinatal period. It is underpinned by the proposition that routine screening in perinatal clinics improves detection of women with perinatal depression and healthcare providers could be trained to effectively screen for perinatal depression, offer psychoeducation and make appropriate referrals.

3) AIM

The purpose of the guidelines is to ensure a standardized and quality assured approach for detecting and dealing with women who have or are at risk of developing perinatal depression. The guidelines will thus aim to improve the health of women during perinatal period. It will allow involvement of women and their families in discussions about their care and treatment options. It will also ensure that information about women with perinatal depression is documented and shared appropriately with all relevant practitioners providing care.

4) POSSIBLE BENEFITS OF THIS STUDY.

Although you will not benefit directly from the study, the results of the workshop will enable us to develop perinatal guidelines to manage perinatal depression.

5) COMPENSATION

You will not be paid to take part in the workshop.

6) YOUR RIGHTS AS A RESEARCH PARTICIPANT

Your participation in this workshop is entirely voluntary. You will be allowed to withdraw from participation in the workshop or stop at any time without giving any reason. You will not incur any penalty from withdrawal from the workshop.

7) ETHICAL APPROVAL

The Faculty of Health Sciences' Research Ethics Committee at the University of Pretoria, in South Africa and Ministry of Health and Social Services in Namibia has given written approval for this study. The study has been structured in accordance with the Declaration of Helsinki (last updated: October 2013), which deals with the recommendations guiding nurses in research involving humans. A copy of the Declaration may be obtained from the investigator should you wish to review it. Please feel free to contact the Research Ethics Committee, if you need any clarification pertaining to ethical approval. Faculty of Health Sciences University of Pretoria's Office: Tel: 012 356 3084 or 012 356 3085.

8) INFORMATION

If you have any questions concerning your participation in this workshop, you should feel free to contact the principal researcher:

Email address: skhatupopi@gmail.com

Or contact my supervisors : Prof M Yazbek 082 576 3558
: Prof A van der Wath

9) CONFIDENTIALITY

All records obtained whilst in this workshop will be not regarded as confidential. Guidelines will be shared with all healthcare providers around the country.

10) CONSENT TO PARTICIPATE IN THIS WORKSHOP

The content and meaning of this information leaflet have been explained to me. I agree that the person asking my consent to take part in this workshop has told me about the nature, process, and benefits of the workshop. I have also received, read and understood the above written information (Information Leaflet and Informed Consent) regarding the workshop. I am aware that the results of the study, including personal details, will be no anonymously managed. I am participating willingly. I have had time to ask questions and have no objection to participate in the workshop. I understand that there is no penalty should I wish to discontinue with the workshop and my withdrawal will not affect me in any way. I hereby volunteer to take part in this workshop. I have received a copy to sign this informed consent agreement.

.....

.....

Participant's name (Please Print)	Date
.....
Participant's signature	Date
.....
Investigator's name (Please Print)	Date
.....
Investigator's signature	Date
.....
Witness's name	Date
.....
Witness's signature	

We sincerely appreciate your help.
 Yours truly
 Saara Hatupopi

CONSENT TO BE AUDIO RECORDED

I hereby have understood and agreed that all information I give out will be audio recorded.
 I have also received and signed a copy of informed consent form agreement

.....
Patient name	Date
.....
Patient signature	Date

ANNEXURE F: EXPERTS PARTICIPANT’S INFORMATION AND INFORMED CONSENT DOCUMENT

STUDY TITLE: GUIDELINES TO MANAGE PERINATAL DEPRESSION IN NAMIBIA

PRINCIPAL INVESTIGATOR: SAARA KERTHU HATUPOPI

INSTITUTION: UNIVERSITY OF PRETORIA

TELEPHONE NUMBER: 264812981536

DATE AND FIRST TIME INFORMED CONSENT DISCUSSION

DAY	MONTH	YEAR	TIME

Dear Expert participant

1) INTRODUCTION

For the fulfilment of my doctoral degree at University of Pretoria, I am expected to conduct research. As part of my research, I am expected to develop guidelines to manage perinatal depression in Namibia. As expert, you are invited to participate in Phase 3 of this study: Guidelines to manage perinatal depression in Namibia. The initial developed guidelines were based of phase1 (the empirical findings from the semi structured interviews with women diagnosed with perinatal depression and healthcare providers as key informants), phase 2, the systematic review of literature, and the conceptual framework.

2) WHO IS AN EXPERT ?

An expert is any individual who is qualified and who has knowledge and understanding in the area of perinatal care, perinatal mental health, policy, guideline development such academic researchers, doctors, midwives, social workers and psychologists.

3) EXPLANATION OF THE PROCEDURES TO BE FOLLOWED

The refinement of guidelines will be done using a Nominal Group Technique to ensures guidelines of high quality. The most important aspect of Nominal Group Technique served the purpose of asking opinions from experts reaching a consensus what guidelines should entail. It is expected that experts participants should discuss and rate the guidelines reach the consensus on the content of guidelines. The researcher will be a facilitator of nominal group technique discussion.

4) WHAT WILL BE EXPECTED OF YOU

As a participants, you will be provided with the developed drafted initial guidelines by the researcher. You will be expected to read through the guideline, recommendations then rate the guideline and write comments. Your ratings and comments will be compared and discussed with that of your fellow colleagues. The feedback will be consist of well summarized content of prior iterations which will be

distributed again back to the participants. This will give each participant an opportunity to generate additional ideas and participant can change his/ her decision in later iterations. The Nominal Group Technique discussion will go on until experts participants reach consensus. As expert participant you are expected to rate the guidelines and give comments. **You are expected to sign page 4 of the consent and return to the research with rated guidelines.**

5) POSSIBLE BENEFITS THAT MAY COME FROM YOUR PARTICIPATION

As an expert, you will contribute to the development of guidelines to manage perinatal depression in Namibia. You will gain more knowledge and insights into guidelines development process as you will learn from other experts and this could promote personal growth. There will be no monetary benefits.

6) HAS THE STUDY RECEIVED ETHICAL APPROVAL?

The protocol was submitted to the Faculty of Health Sciences' Research Ethics Committee at the University of Pretoria, in South Africa. Written approval has been granted by the committee protocol number (49/2021) and telephone for Faculty of Health Sciences, University of Pretoria's, Office: Tel: 012 356 3084 or 012 356 3085. The study also was granted approval from Ministry of Health and Social Services in Namibia has given written approval for this study (Ref:17/3/3/SKH). The study has been structured in accordance with the Declaration of Helsinki (last updated: October 2013), which deals with the recommendations guiding nurses in research involving humans. A copy of the Declaration may be obtained from the investigator should you wish to review it. Please feel free to contact the Research Ethics Committee, if you need any clarification pertaining to ethical approval.

7) WHO CAN YOU CONTACT FOR ADDITIONAL INFORMATION REGARDING THE STUDY

If you have any questions concerning your participation in this study, you should feel free to contact the principal researcher

MS Saara Hatupopi : Tel: +264812981536 email skhatupoi@gmail.com

Or contact my supervisors : Prof Mariatha Yazbek Tel: +27825763558

: Prof Annatjie van der Wath Tel +27845063142

8) EXPERT PARTICIPANT AND INFORMED CONSENT

I, The undersigned, Prof, Dr, Ms, Mrs..... have read the experts participants information leaflet, which has indicated the nature, purpose and benefits of participating in the development of guidelines to manage perinatal depression in Namibia. I have also understood that, my responsibilities as an expert participant aimed at seeking agreement or consensus what final guidelines should entail. As participant, am also expected to read through the guideline then rate guideline and write my comments. Whiles my rating and comments will be compared and discussed with that of fellow colleagues and controlled feedback session will be given to each participant by the researcher. I hereby certify that I agreed to participate in the nominal group technique. **You can withdraw from the study at any point without any negative consequences**

I have received a copy to sign this informed consent agreement.

.....
Participant's name (Please Print)

.....
Date

.....
Participant's signature

.....
Date

.....
Investigator's name (Please Print)

.....
Date

.....
Investigator's signature

.....
Date

.....
Witness's name

.....
Date

.....
Witness's signature

.....

ANNEXURE G: INTERVIEW GUIDE FOR WOMEN WITH PERINATAL DEPRESSION

Section A: Demographic information

Age.....

Marital status : tick where applicable (x)

Married	
Single	
Co-habitation	
Divorced	
Widower	

Employment status: tick where applicable (x)

Employed	
Unemployment	

Section B

Can you answer these few questions about perinatal depression

1. Awareness

What does depression mean to you?

How does depression affect your functioning?

What do you think could be a cause of your depression?

2.Experiences

Tell me more about your experiences during this pregnancy/ delivery and after delivery?

Tell me about any problematic experiences you have experienced; from spouse or family member during pregnancy or after delivery?

What have you been doing to cope with your challenges?

3.Needs

If you could have access to support you, what would it be?

What assistance do you think midwives or (health care providers) can provide for women with perinatal depression symptoms?

ANNEXURE H: INTERVIEW GUIDE FOR HEALTHCARE PROVIDERS

Section A: Demographic information

Age.....

Job description.....

Year of experiences

Section B

Can you answer these few questions about your experience working with women with perinatal depression.

Awareness

What is your understanding of perinatal depression?

What is your view of perinatal depression?

Can you tell me about the impacts/complications of perinatal depression?

Barriers

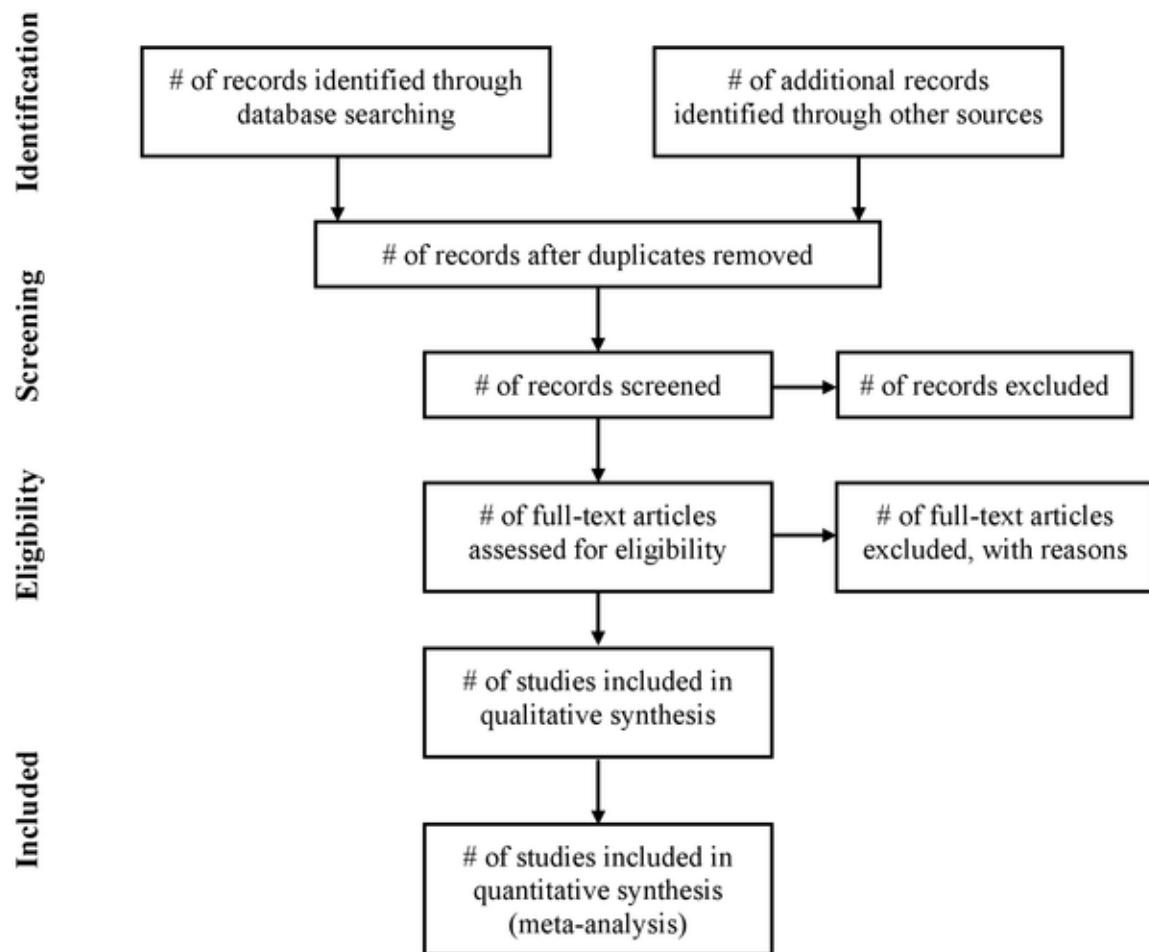
What are the barriers preventing healthcare providers to manage perinatal depression?

What interventions do you think can best help women with perinatal depression?

How can such interventions be implemented in primary health care setting and/ the community?

What are your thoughts and ideas on the feasibility and acceptability of such interventions at Primary Health Care level or Community?

ANNEXURE I: FLOW THROUGH THE DIFFERENT PHASES OF A SYSTEMATIC REVIEW



ANNEXURE J: STAKEHOLDER PARTICIPANTS INTERVIEW GUIDE NGT

Section A Demographic information:

Write your age in the provided box

Age	
-----	--

Write year of experience in the provided box

Year of experience	
--------------------	--

Qualification: Tick the box to indicate your highest qualification

Certificate	
Diploma	
Degree	
Honours degree	
Master's degree	
Doctoral Philosophy (PhD)	
Professor	

Occupation: Tick the box below to indicate your occupation

Registered Midwife	
Doctor	
Midwifery Lecturer	
Nursing manager	
Social worker	

Section B: Questionnaire

Centre of Perinatal Excellence (COPE). 2017. *Effective mental health care in the perinatal period: Australian clinical practice guidelines were selected to be adapted on the Namibia context*. Healthcare providers were presented with the guidelines to make necessary modification.

Answer the following questions according to the information presented to you.

1. Why is it necessary to develop a guideline to manage perinatal depression in Namibia?
2. How many times should healthcare providers screen for depression during pregnancy?
3. What would be the best time to screen for antenatal depression? Please tick (X) in the applicable box.

Trimester	Contacts	Gestational weeks	Screening time
1 st Trimester	1 st contact	As soon as the woman suspect the pregnancy	
2 nd Trimester	2 nd contact	20 weeks gestational weeks	
3 rd Trimester	3 rd contact	26 gestational weeks	
4 th Trimester	4 th contact	30 weeks	
5 th Trimester	5 th contact	34 weeks	
6 th Trimester	6 th contact	36 weeks	
7 th Trimester	7 th contact	38 weeks	
8 th Trimester	8 th contact	40 weeks	

4. Give reasons why you think screening should not be done according to the adapted guidelines (COPE, 2017):
5. As indicated in COPE, 2017 choose the screening tools needed to screen for depression and psychosocial risk factors.
6. What resources (human, material, policies etc) would be needed to implement a guidelines for management of depression in perinatal clinics?
7. How feasible would it be to implement routine screening and management of depression in perinatal clinics?
8. If the screening for perinatal depression is endorsed what guidelines to manage perinatal depression would you recommend?

ANNEXURE K: LETTER OF INVITATION TO EXPERT PARTICIPANTS

Good Day, My name is Saara Hatupopi, I am a PhD student in the department of Nursing Science , Faculty of Health Sciences at the University of Pretoria / South Africa. I am conducting a study entitled; **Guidelines to manage perinatal depression in Namibia**. Under the supervision of Prof: Mariatha Yazbek and Prof Annatjie van der Wath.

I would like to invite you to participate in a research study. Before you decide on whether to participate, I would like to explain to you why the research is being done and what is expected for you. I will go through the information letter with you and answer any questions you have. This should take about 10 to 20 minutes. The study is part of a research study being completed as a requirement for a Doctoral Degree in Professional Nursing Science: Midwifery field through the University of Pretoria.

The specific objectives that formed the basis of this study were the following according to the three study phases.

Phase 1

- Explore and describe the needs of women with perinatal depression in Namibia.
- Explore and describe health care providers' experiences of perinatal depression in Namibia.

Phase 2

- Conduct a systematic review of current global guidelines to manage perinatal depression.
- Based on the findings of objectives 1, 2 and 3, draft preliminary guidelines to manage perinatal depression in Namibia.

Phase 3

Develop and refine guidelines to manage perinatal depression.

There are eight preliminary guidelines and prerequisite with actions for healthcare providers to manage perinatal depression.

- You will be expected to read the guideline, rate the guideline in accordance with the given criteria and write the comments in the space provided at the end of each section. Your ratings and comments will be compared with those of the other participants.
- You are expected to sign page of the consent and return to the research with rated guidelines.

Please complete the bibliographic information in the in the first section of the instrument by providing descriptive information on your professional and academic experience. This will enable the researcher to describe the sample. No names or identities will be mentioned in the research and publications. The refinement process will take less than an two hours to complete. It is anticipated that the NGT will take at least two rounds. Your participation and comments are highly appreciated. Comments received in round one will be discussed collated and analysed for further validation in round two. Attached is the consent form that should be returned with the guidelines should you agree to participate in the study. For any clarification that may be required please contact me or my supervisors.

Hatupopi Saara ; Email: u20814624@tuks.co.za Tel no +264812981536

Prof. Mariatha Yazbek, Email: mariatha.yazbek@up.ac.za, Tel no. +27825763558.

Prof. Annatjie van der Wath, Email: annatjie.vanderwath@up.ac.za, Tel no. +27845063142.

ANNEXURE L: BIOGRAPHICAL INFORMATION OF THE EXPERT PARTICIPANTS

Please complete the biographical information by providing descriptive information on your professional and academic experience. This will enable the researcher to describe the NGT sample.

Occupation	Professional qualifications	Employer	Experience in the field of health care, midwifery, mental health, policy, and guideline development
1.			
2.			

ANNEXURE M: SCALE USED FOR RATING THE GUIDELINES

STUDY TITLE: GUIDELINES TO MANAGE PERINATAL DEPRESSION IN NAMIBIA

Name of Student	Saara Kerthu Hatupopi
Student Number	20814624
Student Email	u20814624@tuks.co.za or skhatupopi@gmail.com
Programme	PhD
Field	Nursing Science, University of Pretoria
Supervisor	Prof. Mariatha Yazbek, Email: mariatha.yazbek@up.ac.za , Tel no. +27825763558.
Co -Supervisor	Prof. Annatjie van der Wath, Email: annatjie.vanderwath@up.ac.za , Tel no. +27845063142.
Activity	Development and refinement of preliminary guidelines
Contact Details	Email: u20814624@tuks.co.za Tel no +264812981536

Complete the rating scale in accordance with the criteria as described. Indicate with x where applicable

Criteria for guideline	Rating scale criteria	Rating Scale guide			
		Strongly disagree	Disagree	Agree	Strongly agree
		1	2	3	4
Purpose The purpose of the guidelines is to manage perinatal depression in Namibia	The purpose of the guidelines is explicitly stated.				
Scope The guidelines were developed for healthcare providers; including midwives, doctors, social workers, gynaecologist, psychologist, healthcare managers, managing women diagnosed with perinatal depression and lecturers involved in training of healthcare providers.	Scope of guidelines are explicitly stated.				

<p>Stakeholders' involvement Semi structured interviews were held with women diagnosed with perinatal depression. Another semi structured interviews were held with healthcare providers providing care to women during perinatal. One day workshop through Nominal Group Technique was held with stakeholders including, midwives, doctors, social workers, lecturers, and healthcare managers providing care to women during the perinatal period. Findings of phases 1 and 2 were presented. Stakeholders reached consensus on what drafted preliminary guidelines should entails. Nominal Group Technique in the area of, guidelines development and policy such as academic researchers, doctors, social workers midwives, and hospital managers refined the guidelines.</p>	<p>The guideline development process comprised individuals from all relevant professional groups and the views from the target population</p>				
<p>Comments</p>					

STUDY TITLE: GUIDELINES TO MANAGE PERINATAL DEPRESSION IN NAMIBIA

Name of Student	Saara Kerthu Hatupopi
Student Number	20814624
Student Email	u20814624@tuks.co.za or skhatupopi@gmail.com
Programme	PhD
Field	Nursing Science, University of Pretoria
Supervisor	Prof. Mariatha Yazbek, Email: mariatha.yazbek@up.ac.za , Tel no. +27825763558.
Co -Supervisor	Prof. Annatjie van der Wath, Email: annatjie.vanderwath@up.ac.za , Tel no. +27845063142.
Activity	Development and refinement of preliminary guidelines
Contact Details	Email: u20814624@tuks.co.za Tel no +264812981536

Please complete the biographical information by providing descriptive information on your professional and academic experience. This will enable the researcher to describe the sample.

Occupation	Professional qualifications	Employer	
PhD in Public Health	Registered Nurse and Midwife	University of Namibia	

Complete the rating scale in accordance with the criteria as described. Indicate with x where applicable

Criteria for guideline	Rating scale criteria	Rating Scale guide			
		Strongly disagree	Disagree	Agree	Strongly agree
		1	2	3	4
Purpose The purpose of the guidelines is to manage perinatal depression in Namibia	The purpose of the guidelines is explicitly stated.				

<p>Scope The guidelines were developed for healthcare providers; including midwives, doctors, social workers, gynaecologist, psychologist, healthcare managers, managing women diagnosed with perinatal depression and lecturers involved in training of healthcare providers.</p>	<p>Scope of guidelines are explicitly stated.</p>				
<p>Stakeholders' involvement Semi structured interviews were held with women diagnosed with perinatal depression. Another semi structured interviews were held with healthcare providers providing care to women during perinatal. One day workshop through Nominal Group Technique was held with stakeholders including, midwives, doctors, social workers, lecturers, and healthcare managers providing care to women during the perinatal period. Findings of phases 1 and 2 were presented. Stakeholders reached consensus on what drafted preliminary guidelines should entails. Nominal Group Technique in the area of, guidelines development and policy such as academic researchers, doctors, social workers midwives, and hospital managers refined the guidelines.</p>	<p>The guideline development process comprised individuals from all relevant professional groups and the views from the target population</p>				
<p>Comments</p>					

Please read the guidelines and actions and complete the rating scale in accordance with the criteria as described.

<p>Rating scale guide: 1 = Strongly disagree 2 = Disagree 3 = Agree 4= Strongly agree</p>	<p>Reliability Guideline is developed in a systematic and rigorous manner so that given the same clinical circumstances will yield the same results</p>				<p>Validity The guideline will guide healthcare providers managing women diagnosed with perinatal depression</p>				<p>Clarity The developed guideline is clear, simple, unambiguous, and is supported by rationale and recommendations for easy implementation</p>				<p>Applicability Target population is clearly stated to healthcare providers involved in care of women during perinatal period such as midwives, doctors, social workers lecturers and Nursing Managers.</p>			
<p>GUIDELINE</p>	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<p>ACTIONS</p>	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

ANNEXURE N: EIGHT DEVELOPED GUIDELINES AND ACTIONS

All the guidelines adapted: Austin, MP, Hightet, N & the Expert Working Group. 2017. *Mental health care in the perinatal period: Australian clinical practice guideline*. Melbourne: Centre of Perinatal Excellence (COPE)

GUIDELINE ONE: PREREQUISITES BEFORE SCREENING FOR PERINATAL DEPRESSION AND ASSESSMENT PSYCHOSOCIAL RISK FACTORS DURING THE PERINATAL PERIOD
ACTIONS
<ul style="list-style-type: none">• Informed consent – an explanation of the purpose of screening should be given before it takes place.• Women should be informed that screening is part of routine perinatal care and results will generally remain confidential.• If a woman does not consent to screening, this should be explored and documented and could be offered at following contacts when woman agreed.• It should also be explained that confidentiality could not be kept if there is a perceived risk of harm to the woman or her baby as there is a duty of care for this to be communicated to significant others. However, in this situation, only information relevant to the risk will be shared.• Healthcare providers have an ethical responsibility and accountability to ensure that the findings of screenings are not misunderstood or misused in a manner that is detrimental to their patient's well-being by the patient's themselves, their families, community, other healthcare providers such community counsellors and policymakers.• Decision-making about the need for and type of follow-up mental health care is based on clinical presentation and responses at interview and the woman's preferences.• Enquire about emotional wellbeing every perinatal contact to determine whether repeat screenings is required.
GUIDELINETWO: HEALTHCARE PROVIDERS SHOULD SCREEN FOR PERINATAL DEPRESSION USING A VALIDATED TOOL.
ACTIONS

- Use the Edinburgh Postnatal Depression Scale (EPDS) tool to screen women for possible depressive disorder in the perinatal period.
- EPDS should be completed by the woman without discussion with others.
- The healthcare providers may verbally administer the questionnaire face to face by reading the questions and answers to the woman
- Healthcare providers can mark the questionnaire according to her responses.
- Women should select one of four possible responses (0–3) to each question to indicate the intensity of depressive symptoms in the previous week or seven days.
- The probable scores vary from 0 to 30 and higher scores indicating more symptoms of depression.
- Cut of 10 should be used on all women when screening for perinatal depression using EPDS.
- Women who screened more than 10 on EPDS are considered with mild depression should be screened after 2 weeks or as needed.
- For a woman with an EPDS score between 10 and 12, monitor and repeat the EPDS in 2–4 weeks as her score may increase subsequently
- Women who scored 13 or more considered as a moderate depression ,arrange further assessment repeat at least once in pregnancy and whenever clinically indicated.
- The probable scores vary from 0 to 30 and higher scores indicate more symptoms of depression.
- Healthcare providers should refer all women to mental health specialists who screen positive on question 10 of the EPDS ,it's a sign of severe depression.

GUIDELINE THREE: INTEGRATE SCREENING FOR PERINATAL DEPRESSION AND ASSESSMENT OF PSYCHOSOCIAL RISK FACTORS INTO PERINATAL CARE AS PART OF INTEGRATIVE PRIMARY HEALTH CARE

ACTIONS

- All women should be screened with Edinburgh Postnatal Depression Scale (EPDS) and assessed for psychosocial risk factors with Antenatal risk questionnaire (ANRQ) validated tools concurrently.
- Healthcare providers should be trained on how to use and interpret the tools.

- Women should be educated on signs, symptoms and causes of perinatal depression and psychosocial risk factors influencing perinatal depression, such as gender based violence
- Use EPDS to screen for depression and the ANRQ tool to assess psychosocial risk factors concurrently.
- Assessment should be done at the 2nd contact.
- Assessment and screening should be repeated at the 6th contact around 36 gestational weeks.
- Women should be screened and assessed once after delivery, at 6 weeks using the ANRQ and EPDS.
- Repeat the ANRO AND EPDS at any time in pregnancy and in the first postnatal year if clinically indicated

Assessment for psychosocial risk factors

- The Antenatal risk questionnaire (ANRQ) is a 12-item self-report tool which measures the main early and chronic psychosocial risk factors related to perinatal depression
- Scores range from 5 to 60, with a cut-off score of 23 used to identify women at increased risk for development of depression.
- A cut-off score of 23 or more is endorsed but women with a major mental health history or history of abuse are at higher risk of poor psychosocial outcome irrespective of the total ANRQ score.
- On psychosocial risk factors arrange further assessment for women with a score of 23 or more.
- Ensure that there are clear policies around the use and interpretation of the psychosocial tool/interview in terms of threshold for referral for psychosocial care and/or ongoing monitoring.
- Discuss with the woman the possible impact of psychosocial risk factors on her mental health and provide information about available assistance.
- Obstetricians in public or private practice are also responsible for ensuring that screening for perinatal depression and psychosocial assessment take place

GUIDELINE : FOUR :HEALTHCARE PROVIDERS SHOULD ENSURE CULTURALLY APPROPRIATE SCREENING FOR PERINATAL DEPRESSION AND ASSESSMENT OF PSYCHOSOCIAL

ACTIONS

- Healthcare providers should consider language and cultural appropriateness of the tools.
- Healthcare providers should consider translators for women who do not understand English
- Health care providers should use a more conversational approach to psychosocial assessment with a focus on developing rapport and trust with woman.
- Healthcare providers should be more sensitive to the cultures of others.
- Healthcare should be aware or accommodate cultural idioms or phrase, as women may use culturally applicable phrases/idioms to express their experiences and understanding of perinatal depression.
- Always be sensitive to non-verbal communication and how it's interpreted by other cultures.

GUIDELINE: FIVE

MANAGEMENT OF PERINATAL DEPRESSION BY INCORPORATING PSYCHOSOCIAL INTERVENTIONS

ACTIONS

1. Cognitive Behavioural Therapy

In Cognitive Behavioural Therapy (CBT), depressed women are taught to monitor their negative moods, thoughts, and behaviours, and alter them into positive thoughts through methods called healthy thinking and behaviour activation, which may improve their depressive symptoms (Stefan et al., 2019:2).

Indication for CBT intervention

- All women diagnosed with perinatal depression.

Importance of Cognitive Behavioural Therapy interventions

- Highly effective for treating and preventing depression among perinatal populations.
- Women learn to recognise their negative thinking patterns and how to re-evaluate them.
- Could be provided to individual or group therapy.

- Group interventions could increase retention of women, is of low cost and could be conducted by any healthcare provider.
- Women and healthcare providers work collaboratively to identify the types of thoughts, beliefs and interpretations and their effects on current symptoms, feeling states and problem areas.
- Women then develop the skills to identify, monitor and counteract problematic thoughts, beliefs and interpretations related to the target symptoms.
- Culturally relevant to manage perinatal depression.
- Help in reducing perinatal depression induced psychological stress.
- Help improve self-perception of individuals with perinatal depression.
- Improve the quality of life of women with perinatal depression, improving their depressive symptoms.
- Show positive effects by changing the negative cognitions, behaviour and beliefs regarding perinatal depression and its treatment.
- Reduce anxiety after treatment as compared to those on only biomedical treatment.

Actions:

- This intervention can be provided to individual or group therapy.
- Teach women to learn to recognize their negative thinking patterns and how to re-evaluate them.
- Healthcare providers works collaboratively with women to identify the types of thoughts, beliefs and interpretations and their effects on current symptoms, feeling states and problem areas.
- Encourage women to develop the skills to identify, monitor and counteract problematic thoughts, beliefs and interpretations related to the target symptoms.
- Show positive effects by changing the negative cognitions, behaviour and beliefs regarding perinatal depression and its treatment.

2. Interpersonal Psychotherapy (IPT)

Interpersonal Psychotherapy (IPT) is a strategy derived from and based on relational theory. Is defined as a discrete, time-limited, structured psychological treatment derived from an interpersonal model of affective disorders that focuses on interpersonal issues (Evans et al.,2021:18; NICE 2018:212). IPT focuses on role transitions such as changing roles and relationships with other people (BC, Reproductive Mental Health 2014:26).

- Indication for Interpersonal Psychotherapy (IPT)

All women diagnosed with perinatal depression

Importance of Interpersonal Psychotherapy (IPT)

- The intervention seeks to reduce symptoms by learning to cope with or resolve these interpersonal issues.
- Focus on current relationships and interpersonal processes and on the difficulties that arise in the daily experience of maintaining relationships and resolving difficulties.

Actions

- The women and healthcare providers work collaboratively to identify effects of main problem areas connected to interpersonal conflicts, role transitions, grief and loss, and social skills, and their effect on current symptoms, feeling states and/or problems.
- The key tasks are to assist women to link their mood with their interpersonal contacts, recognising that, by appropriately addressing interpersonal problems, they may improve both relationship and mood.
- There should usually be an agreed focus for management, such as interpersonal role transitions.
- The management sessions concentrate on facilitating understanding of recent events in interpersonal terms and exploring alternative ways of handling interpersonal situations.
- Usually delivered as an individually focused therapy but could be offered as a group management.

3. Problem Solving Therapy (PST)

Problem Solving Therapy (PST) is a brief structured therapy which emphasise interpersonal problems in the present social context through collaboration. It entails five general stages namely: problem orientation, problem definition and formulation, generation of alternatives, decision making, and verification (Chowdhary et al., 2014:121).

Indications for rendering Problem Solving Therapy (PST)

- All women diagnosed with perinatal depression.

Importance of Problem-Solving Therapy (PST)

- Effective for lessening depressive symptoms in perinatal populations.
- Feasible and acceptable as a low-cost intervention delivered even by lay health workers for perinatal women in primary health care.
- Adaptation of PST would suit local settings and may improve both intervention acceptability and outcomes.
- Enable women to find a safe space to talk about violence in their life and to gain knowledge of where and how to get support.
- Could be provided individually and in group settings.

Actions

- The group mode of PST delivery may provide mothers with additional peer support and opportunities to practice interpersonal skills.
- Sessions should be conducted in the local language, well understood by most of the women, enabling the women to engage with therapy.
- When it is provided by healthcare providers, enhancing their ability to facilitate group PST sessions, may not only increase the accessibility and adherence to the group PST sessions but may also reduce self and social stigma often associated with mental health care.

4. Thinking Healthy Programme (THP)

Thinking Healthy Programme (THP) directed to individual women and family members in their homes with support group sessions, can alleviate several issues concerning perinatal depression (Ng'oma et al., 2019:14)

Indication for Thinking Healthy Programme (THP)

- All women diagnosed with mild and moderate perinatal depression.

Importance of Thinking Healthy Programme (THP)

- Adapted for use by lay health workers and peer volunteers.
- Approved by WHO as a first line low intensity psychosocial intervention for perinatal depression.
- It does not require previous knowledge or experience of mental health care.
- Not only proven effective in reducing depression symptoms, but also feasible and acceptable for non-skilled workers to implement such services in low and middle incomes countries.

Actions

- Is used as a learning strategy to recognize unhealthy thinking, in which mothers are educated and advised about unhealthy thinking styles and learn to identify them.
- It should be used to substitute unhealthy thinking with helpful thinking that supports mothers questioning the accuracy of unhealthy thoughts and proposes alternative thoughts that are more helpful.

5. Mindfulness-based Cognitive Therapy

Mindfulness based cognitive therapy is directed to enable people to learn to become more aware of the bodily sensations, thoughts and feelings related with depressive relapse, and to relate constructively to these experiences (NICE, 2018:214).

Indication for Mindfulness-based Cognitive Therapy

- All women diagnosed with perinatal depression.

Importance of mindfulness-based Cognitive Therapy

- It is based on theoretical and empirical work demonstrating that depressive relapse is linked with the restoration of automatic modes of thinking and feeling.
- Behaviour that is counterproductive in contributing to and maintaining depressive relapse and recurrence for example, self-critical thinking and avoidance.

Actions

- Women should be taught how to identify these 'automatic pilot' modes, reject them, and respond in healthier ways by intentionally moving into a mode in which they 'de-centre' from negative thoughts and feelings, for instance by learning that 'thoughts are not facts.'
- Admit difficulties using a stance of self-compassion or self-love and use bodily awareness to ground and transform experience.
- Common following birth (postnatal) modifications include the presence of babies in the room during sessions and replacing a longer single meditation per session with a few shorter meditations.

6. Direct counselling

Among women in the perinatal period with a diagnosis of depression, directive counselling which includes supportive listening, problem-solving and goal setting – may improve depressive symptoms.

Indications for rendering direct counselling

- All women diagnosed with mild and moderate perinatal depression

Actions

- Advise women with perinatal depression disorder of the possible benefits of directive counselling.
- This intervention can be delivered individually or in a group format.
- Individual counselling should be offered to women who prefer it. Because some women may be concerned with confidentiality issues.
- Cultural appropriateness of discussing personal and family issues in a group setting and the impact this might have on their family.
- This might be due to the women's concern/fear of being stigmatized in the community or lack of information regarding operation of group counselling.
- Provide an opportunity to alleviate fears, anxiety and other psychological stressors encountered by women diagnosed with perinatal depression.
- Provide opportunities for women to discuss and clarify treatment related concerns.
- The healthcare provider is trained to help women to gain a better understanding of their circumstances and themselves.
- The therapist adopts an empathic and non-judgemental tactic, listening rather than directing but offering non-verbal encouragement, reflecting back to help the person in making decisions.
- This method is usually offered by briefly trained healthcare professionals rather than mental health professionals and often takes place in the women's home.
- Provide the necessary information so that women can establish their own support groups.
- Encourage and offer women the chance to discuss worries and fears concerning pregnancy and birth outcomes.
- Establish forums and allow those with similar experiences to share their experiences with the newly diagnosed.

7. Peer-support (mentoring) and support groups

Peer support mentoring and support groups is a system of giving and receiving assistance grounded on key principles of respect, shared responsibility, and mutual agreement of what is helpful and is primarily in one direction with a clearly defined peer supporter and recipient of support (NICE, 2018:215).

Indications for peer support and group supports

- All women diagnosed with perinatal depression

Actions

- Peer volunteers should be women themselves and have a history of perinatal depression are recruited and trained to deliver interventions.
- These interventions can include befriending and mentoring.
- While support groups should provide an opportunity for peer support but should be facilitated by healthcare providers.
- Discussions are usually structured around a series of predefined topic areas (for instance, transition to motherhood, perinatal stress management, gender-based violence, paternity denial, and co-parenting challenges).
- The primary goal of these interventions is to enable mutual support by bringing women into contact with other women who are /were having similar experiences and providing opportunities for sharing problems and solutions

8. Social support

Social support is regarded to be central in transition to motherhood and has an impact on emotional coping strategies. It provides direct effects on emotional strength, lessened effects of stressful life events and prevents perinatal depression (Milgrom et al., 2019:2).

Indication for social support

All women diagnosed with perinatal depression

Actions

- Involvement in a social support group might improve depression symptoms among women in the perinatal period.
- Advise women with symptoms of perinatal depression of the potential benefits of a social support group.
- Advise families of the potential benefits of a social support group.
- Advise and encourage the involvement of the women's partners throughout the management processes.

- Encourage the support of close significant others, for example the involvement of a mother or a sister based on their consent.
- Advise partners and other significant others in the family so that they improve the functioning of the family as a unit or subsystem, as well as the functioning of the individual members of the family.
- Provide additional psychosocial care to overcome relational and social distress.

GUIDELINE SIX:

HEALTHCARE PROVIDERS SHOULD ASSESS WOMEN WITH OR AT RISK OF SUICIDE.

ACTIONS

- When a woman is identified as at risk of suicide (through clinical assessment and/or the EPDS) manage immediate risk, arrange for urgent mental health assessment, and consider support and treatment options.
- There should be an immediate arrangement and assessment for woman with disclosure of suicidal ideation.
- For a woman with a positive score on Question 10 on the EPDS, undertake or arrange risk of suicide assessment.
- Assessment of risk includes making investigation into the extent of suicidal thoughts and intent. Suicidal thoughts – if woman have suicidal thoughts , how frequent does the woman think about it?
- Plan – if the woman has a plan to her life, how detailed and realistic is it?
- Lethality – what method has the woman chosen to end her life?

Consideration should also be given to:

- Risk and protective factors.
- Mental state – history of psychosis ,hopelessness, despair, , agitation, shame, anger and guilt.
- History of suicidal behaviour.
- Family history of suicidal behaviour.
- Substance use – current misuse of alcohol or other drugs.
- Strengths and supports – availability, willingness, and capacity of support.

Additional considerations in managing identified risk of suicide

- **Low risk** – Try to understand what triggers the suicidal thoughts. If triggers are core to the woman's current perinatal experience.
- For example, sense of maternal failure; shame about negative thoughts towards infants; interpersonal conflict, lack of social support,
- Ensure a safety plan is specific to the matters.
- **Medium risk** – Assessment on the context of current suicidal thoughts should be done.
- For instance, previous suicide ideation, behaviours and outcomes.

- Investigate factors that might contribute to increase of risk, for example, unsettled baby, conflict with partner or family.
- If suicidal thoughts are triggered by the woman's current perinatal experience and could not be immediately resolved, carers for infant/children and mother need to be located
- **High risk** – Find a trusted person to care for infants/children.
- Women with severe positive screening results requires timely intervention, proper treatment, and referral.
- Enable proper interventions and to identify which resources are required during referral.
- **Developing a safety plan:** A safety plan should be prioritised based on the list of coping strategies and sources of support that women could use when they experience suicidal thoughts:

Healthcare providers should adhere to the following principles regarding developing safety plan:

- Identifying warning signs that indicate she might be at risk of imminent suicide, for example dwelling on thoughts, feeling trapped, worthless, or hopeless and actions to protect herself and the infant.
- Internal coping strategies that decrease the level of risk, for example mindfulness-based cognitive therapy.
- People within the woman's network who can assist in times of need.
- Healthcare providers could be contacted for assistance.
- Safety plans should be frequently revisited and modified as needed.

GUIDELINE SEVEN:

HEALTHCARE PROVIDERS SHOULD ESTABLISH CLEAR REFERRAL PATHWAYS

ACTIONS

- Attention to be given to the urgency of the referral, mainly when women have severe symptoms or suicidal thoughts.
- There should be clear referral pathways on how to refer a woman with severe depression from rural and urban settings.
- Identify appropriate health professionals available to provide follow-up care and to help if there are concerns for the safety of the woman and infant.
- Identify other professionals from whom healthcare providers can seek advice, clinical supervision, or support regarding mental health care in the perinatal period.

- Women with severe perinatal depression and suicidal thoughts may need to be referred directly to the local mental health team for urgent assessment or even scheduled to the local psychiatric facility.
- In rural and remote settings, mental health services may be sought from a social worker, psychiatrist or other healthcare providers who have more experience in mental health.
- Midwifery – For midwives, referral pathways will differ depending on whether they are in the urban or rural settings midwives in a hospital-based setting may offer ongoing care and support to the women.
- Midwives in other settings may refer women to mental health service providers.
- Perinatal clinics – Healthcare providers will diagnose and develop a management plan for women with depressive disorders. Women with severe symptoms of perinatal depression should be referred directly to a psychiatrist.
- Once a perinatal depression is established, and where psychosocial intervention is deemed the best treatment approach, a mental health treatment plan should allow the woman access to psychosocial intervention.
- In the public sector, referral pathways would regularly be established with in-house social workers and allied mental health clinicians.
- Women may be referred back to their healthcare providers if there is shared care.
- Healthcare providers working in perinatal settings and psychiatrists could provide a mental health care plan to access subsidised psychosocial care.
- Postnatal care – Most women would see midwives in the postnatal period. In this setting, referral would be likely to a social worker for further referral for counselling or psychological assessment.
- A midwife and doctors may provide ongoing care and support to the family, seeking advice about perinatal depression.
- All coordinated care should be recorded.

GUIDELINE EIGHT:

ENSURE ACCEPTABILITY AND FEASIBILITY OF THE INTEGRATION OF PERINATAL MENTAL HEALTH INTO PRIMARY HEALTH CARE SETTINGS

ACTIONS

- Support from the government and provision of required resources.
- Transportation for mental health specialists to visit antenatal clinics.
- Provide adequate space.

- Provide funds and materials to implement the guidelines.
- Supportive supervision and effective mechanisms for monitoring and evaluation.
- Use of task sharing within primary Health care setting to alleviate shortage of staff.

ANNEXURE O EDINBURGH POSTNATAL DEPRESSION SCALE (COX ET AL 1987)

Name:

Address:

Date of Birth:

Age

Phone:

Instructions: As you pregnant or have recently had a baby. Would like to know how you have been feeling in the past week. Please indicate which of the following comes closest to how you have felt in the past week, not just how you feel today. Please. **TICK ON CIRCLE for each question, which is the closest to how you have felt in the PAST SEVEN DAYS.**

QUESTIONS

In the past 7 days:

1. I have been able to laugh and see the funny side of things

- As much as I always could
- Not quite so much now
- Definitely not so much now
- Not at all

2. I have looked forward with enjoyment to things

- As much as I ever did
- Rather less than I used to
- Definitely less than I used to
- Hardly at all

3. I have blamed myself unnecessarily when things went wrong

- Yes, most of the time
- Yes, some of the time
- Not very often
- No, never

4. I have been anxious or worried for no good reason

- No, not at all
- Hardly ever
- Yes, sometimes
- Yes, very often

5. I have felt scared or panicky for no very good reason

- Yes, quite a lot
- Yes, sometimes
- No, not much
- No, not at all

6. Things have been getting on top of me

- Yes, most of the time I haven't been able to cope at all
- Yes, sometimes I haven't been coping as well as usual
- No, most of the time I have coped quite well
- No, I have been coping as well as ever

7. I have been so unhappy that I have had difficulty sleeping

- Yes, most of the time
- Yes, sometimes
- Not very often
- No, not at all

8. I have felt sad or miserable

- Yes, most of the time
- Yes, quite often
- Not very often
- No, not at all

9. I have been so unhappy that I have been crying

- Yes, most of the time
- Yes, quite often
- Only occasionally
- No, never

10. The thought of harming myself has occurred to me

- Yes, quite often
- Sometimes
- Hardly ever
- Never

Administered/Reviewed by
Date

ANNEXURE P: ANTENATAL RISK QUESTIONNAIRE (ANRQ)

ANTENATAL RISK QUESTIONNAIRE (ANRQ)

Name: _____ Today's Date: ____/____/____

Weeks Pregnant: _____ Due date: ____/____/____

Phone (h) _____ (w) _____ (m) _____

This is part of your Antenatal Booking Evaluation and will guide us as to what services we can offer you during your pregnancy. It is confidential information and will remain in your file.
PLEASE COMPLETE ALL ITEMS. Circle numbers 1-6 or tick YES/NO

TOTAL

1. When you were growing up, did you feel your mother was emotionally supportive of you? *(If you had no mother circle 6)*.

1	2	3	4	5	[6
very much	somewhat	not at all			

2. a) Have you ever had 2 weeks or more when you felt particularly worried, miserable or depressed?

Yes No
- b) Do you have any other history of mental health problems?

Yes No

e.g. eating disorders, psychosis, bipolar disorder, schizophrenia. Please specify: _____
- If Yes to 2a or 2b, did this:
 - c) Seriously interfere with your work and your relationships with friends and family?

1	2	3	4	5
not at all	somewhat	very much		
 - d) Lead you to seek professional help?

Yes No

Did you see a: Psychiatrist Psychologist/Counsellor GP _____
 (Name of professional)
 - e) Did you take tablets/herbal medicine? No Yes Please specify: _____

3. Is your relationship with your partner an emotionally supportive one? *(If you have no partner circle 6)*

1	2	3	4	5	[6
very much	somewhat	not at all			

4. a) Have you had any stresses, changes or losses in the last 12 months (e.g. separation, domestic violence, unemployment, bereavement ?)

Yes No

Please list: _____
- b) How distressed were you by these stresses, changes or losses?

1	2	3	4	5
not at all	somewhat	very much		

5. Would you generally consider yourself a worrier?

1	2	3	4	5
not at all	somewhat	very much		

6. In general, do you become upset if you do not have order in your life (e.g. regular time table, a tidy house)?

1	2	3	4	5
not at all	somewhat	very much		

7. Do you feel you have people you can depend on for support with your baby?

1	2	3	4	5
very much	somewhat	not at all		

8. Were you emotionally abused when you were growing up?

Yes No
9. Have you ever been sexually or physically abused?

Yes No

If you would like to seek some help with any of these issues please discuss this with your midwife or doctor.

ANNEXURE Q: EDITOR LETTER

Cell/Mobile: 073-782-3923

53 Glover Avenue
Doringkloof
0157 Centurion

22 June 2023

TO WHOM IT MAY CONCERN

I hereby certify that I have edited Saara Kerthu Hatupopi's doctoral dissertation, **Development of guidelines to manage perinatal depression in Namibia**, for language and content.

IM Cooper

lauma M Cooper
192-290-4