



UNIVERSITEIT VAN PRETORIA  
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# **DEPRESSION AMONG AFRICAN PATIENTS: THREE DIAGNOSTIC APPROACHES**

**By**

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**Submitted in partial fulfillment of the requirement for the degree**

**DPhil (Psychology)**

**in the**

**Faculty of Humanities**

**at the**

**UNIVERSITY OF PRETORIA**

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**OCTOBER 2001**

## ACKNOWLEDGEMENTS

Undertaking a study of this nature is always a joint venture. I gratefully acknowledge the support of those without whose expertise and guidance this project would not have been possible.

My deepest appreciation goes to Prof. J.B. Schoeman, for sharing his wisdom, experience and motivation throughout this project.

I extend a special word of thanks to Mrs. Rina Owen from the Department of Information Technology, University of Pretoria, for her patience and assistance with the statistical analysis.

In addition, I would like to express my sincerest appreciation to the following people :

- My children (Thabo, Mapula and Sekwele) for their support, patience and contribution towards this project throughout all the years of my study.
- Moreti Motau for his very thoughtful and helpful ideas and critiques that contributed to the success of this study.
- All staff from my practice for helping me to get the work done efficiently, namely; Mpho Molohe, Mmule Mashishi, Daphney Mashiane, Kgabo Magoai, Khazamula Matjeke, Connie Matlala, Thabitha Fisha, Vhongani Rasiluma, Kholofelo Mosweu, Itumeleng Matlala, Matome Mabetlela, Mphathi Matlala and Maria Mothlakoane.
- My mother, who always shared my vision of a stress-free nation. I appreciate especially her inspiration and encouragement.
- The many patients who participated in this study.

## SUMMARY

### DEPRESSION AMONG AFRICAN PATIENTS: THREE DIAGNOSTIC APPROACHES

By

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**Promoter:** Professor J. B. Schoeman

**Department:** Psychology

**Degree:** DPhil (Psychology)

The aim of this study was to determine the usefulness of the following instruments for the diagnosis of depression among Africans: The Beck Depression Inventory (2<sup>nd</sup> Edition) (BDI-II), the Minnesota Multiphasic Personality Inventory (Revised) (MMPI-2) and the Rorschach Inkblot Test (scored in terms of Exner's Comprehensive System). With regard to the MMPI-2, the focus was on the Depressed Suicidal Ideation Critical Item Scale, but the following Critical Item Scales were also examined: Acute Anxiety State, Somatic Symptoms and Family Conflict. With regard to the Rorschach, the Depression Index (DEPI) and the Suicide Constellation (S-CON) were examined. A Structured Questionnaire was used to obtain background information on the patients.

The sample consisted of 162 African patients between the ages of 18 and 50 years that were seen in a private practice in Pretoria, Gauteng. All the patients had an educational level of at least Grade 12. The patients were diagnosed according to DSM-IV criteria as suffering from Dysthymia, Major Depression or Adjustment Disorder with Depressed Mood.

The personal background information about the patients that was examined included: sources of and reasons for referral, presenting symptoms, views about the causes of depression, and experience of the self. Relevant statistical analyses were done to

investigate the reliability and validity of the measurement instruments and to determine if there were any gender or age biases in the results.

In contrast to the findings of earlier research that depressed African patients mainly present with physical complaints, the patients who participated in the study predominantly presented with emotional and cognitive symptoms similar to what is found in Western countries. Only a few patients referred to traditional African beliefs such as witchcraft, and most of them interpreted their illness in terms of interpersonal problems, especially in their relationships with other family members.

The BDI-II was found to be a reliable and valid instrument that could be used for the diagnosis of depression among African patients.

Of the 162 MMPI protocols, 46.3% were invalid. It was especially on the L, F, F(B) and Cs scales that large numbers of patients obtained scores higher than the cut-off scores. The reliabilities of the Critical Item Scales were acceptable, except for the Family Conflict scale, and these scales thus generally appear to be useful for diagnostic purposes in an African context. The mean score on the Depressed Suicidal Ideation Scale was, however, relatively low. The MMPI-2 rendered a large number of misdiagnoses of Schizophrenia and Personality Disorder and only a few of the patients obtained a diagnosis of a depressive disorder. Although the patients found the MMPI-2 too long and the language too complex, they generally experienced the test positively.

The DEPI and S-CON rendered a large number of false negatives which indicates that if these indeces are used for assessing depression, it should be done in conjunction with other diagnostic methods. The Rorschach nevertheless proved to be useful for identifying psychodynamic processes that could be used therapeutically.

A low and statistically non-significant positive correlation was found between the BDI-II and the DEPI. Both the BDI-II and the DEPI correlated positively with the Depressed

Suicidal Ideation scale. The S-CON did not correlate significantly with any of the other scales.

**Keywords:** Africa, MMPI-2, Rorschach, Depression Index (DEPI), Suicide Constellation (S-CON), Depression, Culture, Suicide, Diagnosis, Beck Depression Inventory.

## OPSOMMING

### DEPRESSIE ONDER SWART PASIËNTE: DRIE DIAGNOSTIESE BENADERINGS

Deur

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Die doel van die studie was om die bruikbaarheid van die volgende instruments vir die diagnose van depressie onder swart pasiënte, te bepaal: Die Beck Depressieskaal (2de Uitgawe) (BDI-II), the “Minnesota Multiphasic Personality Inventory” (Hersiene Uitgawe) (MMPI-2) en die Rorschach Inkkladtoets (ooreenkomstig Exner se Omvattende Merksisteem). Ten opsigte van die MMPI-2 was die klem op die Depressie en Selfmoordgedagtes Kritiese Itemskaal, maar die volgende Kritiese Itemskaal is ook ondersoek: Akute Angstoetstand, Somatiese Simptome en Gesinskonflik. Ten opsigte van die Rorschach is die Depressie-indeks (DEPI) en die Selfmoordkonstellasie (S-KON) ondersoek. ‘n Gestruktureerde Vraelys is ook gebruik om agtergrondgegewens oor die pasiënte te bekom.

Die steekproef het uit 162 swart pasiënte tussen die ouderdomme van 18 en 50 jaar bestaan. Hulle is in ‘n privaatpraktyk in Pretoria, Gauteng, gesien, en het ten minste oor ‘n Graad 12 kwalifikasie beskik. Die pasiënte was ooreenkomstig die kriteria van die DSM-IV gediagnoseer met hetsy Distemie, Major Depressie of Aanpassingsversteuring met Depressiewe Gemoed.

Die persoonlike agtergrondsinsligting van die pasiënte wat ondersoek is, het die volgende ingesluit: bronne van en redes vir verwysing, presenterende simptome, sienings oor die

oorsake van depressie en die ervaring van die self. Toepaslike statistiese ontledings is gedoen om die betroubaarheid en geldigheid van die meetinstrumente te ondersoek en om te bepaal of daar sydigheid in terme van geslag en ouderdom in die resultate was.

In teenstelling met vroeëre navorsingsresultate dat depressiewe swart pasiënte meesal met somatiese simptome presenteer, het die pasiënte in hierdie studie oorwegend met dieselfde emosionele en kognitiewe simptome wat in Westerse lande gevind word, presenteer. Slegs enkele pasiënte het na tradisionele denkpatrone soos heksery vewys, en meeste van hulle het hul siekte in terme van interpersoonlike probleme (veral in gesinsverhoudings) interpreteerbv.

Daar is bevind dat die BDI-II 'n betroubare en geldige instrument is wat vir die diagnose van depressie onder swart pasiënte gebruik kan word.

Van die 162 MMPI protokolle, was 46.3% ongeldig. Dit was veral op die L, F, F(B) and Cs skale dat groot getalle pasiënte tellings behaal het wat hoër was as die afsnypunte. Die Kritiese Itemskaal se betroubaarhede was aanvaarbaar, behalwe vir die Gesinskonflikskaal en dit impliseer dat hierdie skale oorhoofs bruikbaar is vir diagnostiese doeleindes in 'n Afrikakonteks. Die gemiddelde telling op die Depressie en Selfmoordgedagteskaal was egter relatief laag. The MMPI-2 het 'n groot aantal foutiewe diagnoses van skisofrenie en persoonlikheidsversteuring opgelewer, en slegs enkele pasiënte is met 'n depressiewe versteuring gediagnoseer. Alhoewel die pasiënte die MMPI-2 as te lank en die taal van die toets as te kompleks beskryf het, het hulle die toets oor die algemeen positief beleef.

Die DEPI en S-KON het groot getalle vals-negatiewe gevalle opgelewer, en dit impliseer dat indien hierdie indekse gebruik sou word vir die assessering van depressie, dit met ander diagnostiese metodes gekombineer moet word. Die Rorschach is desnieteenstaande bruikbaar om psigodinamiese prosesse te identifiseer wat op terapeutiese vlak gebruik kan word.



Daar was 'n lae en statisties-onbeduidende korrelasie tussen die BDI-II en die DEPI. Beide die BDI-II en die DEPI het 'n positiewe korrelasie gehad met die Depressie en Selfmoordgedagteskaal. Die S-KON het nie beduidend met enige van die ander skale gekorrelaer nie.

**Kernwoorde:** Afrika, MMPI-2, Rorschach, Depressie-indeks (DEPI), Selfmoordkonstellasie (S-KON), Depressie, Kultuur, Selfmoord, Diagnose, Beck Depressieskaal.



## TABLE OF CONTENT

<b>ACKNOWLEDGEMENTS .....</b>	<b>II</b>
<b>SUMMARY .....</b>	<b>III</b>
<b>OPSOMMING.....</b>	<b>VI</b>
<b>LIST OF TABLES .....</b>	<b>XVI</b>
<b>LIST OF FIGURES.....</b>	<b>XVII</b>
<b>CHAPTER 1: INTRODUCTION .....</b>	<b>1</b>
<b>1.1 INTRODUCTION .....</b>	<b>1</b>
<b>1.2 MOTIVATION FOR THE STUDY.....</b>	<b>2</b>
<b>1.3 OBJECTIVES OF THE STUDY .....</b>	<b>4</b>
<b>1.4 OVERVIEW OF THE STUDY.....</b>	<b>5</b>
<b>CHAPTER 2: THE DIAGNOSIS OF DEPRESSION .....</b>	<b>6</b>
<b>2.1 INTRODUCTION .....</b>	<b>6</b>
<b>2.2 DIAGNOSIS .....</b>	<b>6</b>
<b>2.3 CLINICAL DEPRESSION .....</b>	<b>9</b>
<b>2.4 MASKED DEPRESSION .....</b>	<b>10</b>
<b>2.5 MAJOR DEPRESSION .....</b>	<b>12</b>
<b>2.6 DYSTHYMIA.....</b>	<b>13</b>
<b>2.7 ADJUSTMENT DISORDER.....</b>	<b>14</b>
<b>2.8 CONCLUSION.....</b>	<b>15</b>
<b>CHAPTER 3: CLINICAL DEPRESSION IN AFRICA.....</b>	<b>17</b>
<b>3.1 INTRODUCTION .....</b>	<b>17</b>
<b>3.2 PREVALENCE OF DEPRESSION ON THE AFRICAN CONTINENT.....</b>	<b>18</b>

<b>3.3 CULTURAL RELATIVITY IN THE SYMPTOM MANIFESTATION OF DEPRESSION .....</b>	<b>22</b>
<b>3.4 CHANGES IN SYMPTOM MANIFESTATION OF DEPRESSION DUE TO CULTURAL CHANGE .....</b>	<b>25</b>
<b>3.5 THE ROLE OF CULTURE IN PSYCHOPATHOLOGY.....</b>	<b>28</b>
<b>3.6 SUICIDE.....</b>	<b>31</b>
3.6.1 EPIDEMIOLOGICAL DATA ON SUICIDE .....	31
3.6.2 UNIVERSAL, CULTURE-SPECIFIC AND INDIVIDUAL CORRELATES OF SUICIDE.....	32
3.6.2.1 <i>Universal correlates</i> .....	32
3.6.2.2 <i>Cultural-specific correlates</i> .....	35
3.6.2.3 <i>Individual correlates</i> .....	36
3.6.3 THE RELATIONSHIP BETWEEN SUICIDE AND OTHER PSYCHIATRIC DIAGNOSES.....	36
<b>3.7 MISDIAGNOSIS OF DEPRESSION .....</b>	<b>37</b>
3.7.1 INTRODUCTION.....	38
3.7.2 LANGUAGE PROBLEMS.....	39
3.7.3 CULTURAL FACTORS.....	40
3.7.4 ATTITUDES TOWARDS MENTAL ILLNESS AND MENTAL HEALTH CARE.....	41
3.7.5 ASSESSMENT INSTRUMENTS.....	41
<b>3.8 AGE AND DEPRESSION.....</b>	<b>42</b>
<b>3.9 GENDER AND DEPRESSION.....</b>	<b>43</b>
<b>3.10 CONCLUSION.....</b>	<b>43</b>
<b>CHAPTER 4: MEASUREMENT INSTRUMENTS USED IN THE STUDY .....</b>	<b>45</b>
<b>4.1 INTRODUCTION .....</b>	<b>45</b>
<b>4.2 THE BECK DEPRESSION INVENTORY, SECOND EDITION (BDI-II).....</b>	<b>46</b>
4.2.1 HISTORY OF THE TEST.....	46
4.2.2 DESCRIPTION OF THE BDI-II .....	48
4.2.3 PSYCHOMETRIC PROPERTIES OF THE BDI.....	50
4.2.4 THEORETICAL FOUNDATIONS OF THE BDI.....	50
4.2.5 AFRICAN STUDIES UTILISING THE BDI .....	51
<b>4.3 THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY (MMPI).....</b>	<b>52</b>
4.3.1 INTRODUCTION.....	52
4.3.2 DESCRIPTION OF THE MMPI-2 .....	52
4.3.3 SCALES USED FOR DETERMINING THE ACCEPTABILITY OF A PROTOCOL .....	53
4.3.4 CONTENT SCALES.....	58
4.3.4.1 <i>Origin</i> .....	58

4.3.4.2	Areas covered by the Content Scales.....	59
4.3.4.3	Description of the Content Scales relevant to the present study.....	60
4.3.5	CRITICAL ITEM SCALES.....	61
4.3.5.1	Origin.....	61
4.3.5.2	Description of Critical Item Scales relevant to the present study.....	63
4.3.6	MMPI DIAGNOSES.....	66
4.3.7	PSYCHOMETRIC PROPERTIES OF THE MMPI.....	66
4.3.8	THEORETICAL FOUNDATIONS OF THE MMPI.....	67
4.3.9	CONCLUSION.....	68
<b>4.4</b>	<b>THE RORSCHACH INKBLLOT TEST: A COMPREHENSIVE SYSTEM.....</b>	<b>69</b>
4.4.1	BACKGROUND.....	69
4.4.2	THE DEPRESSION INDEX (DEPI).....	74
4.4.2.1	Development and description of the DEPI.....	74
4.4.2.2	Considerations when interpreting the DEPI.....	76
4.4.3	THE SUICIDE CONSTELLATION.....	77
4.4.4	DESCRIPTION OF INDICATORS ON THE DEPI AND S-CON.....	78
4.4.4.1	DEPI: $(FV + VF + V > 0)$ OR $(FD > 2)$ .....	79
	S-CON: $FV + VF + V + FD > 2$ .....	80
4.4.4.2	DEPI: $(\text{Colour Shading Blends} > 0)$ OR $(S > 2)$ .....	
	S-CON: (a) $\text{Colour Shading Blends} > 0$ .....	81
	(b) $S > 3$ .....	81
4.4.4.3	DEPI: $[3r + (2)/R] > .44$ AND $Fr + rF = 0$ OR $3r + (2)/R < .33$ .....	82
	S-CON: $3r + (2)/R < .31$ or $> .44$ .....	82
4.4.4.4	DEPI: $MOR > 2$ OR $(2xAB + Art + Ay > 3)$ .....	82
	S-CON: $MOR > 3$ .....	83
4.4.4.5	DEPI: $(Afr < .46)$ OR $(\text{Blends} < 4)$ .....	85
4.4.4.6	DEPI: $(\text{Sum of Shading} > FM + m)$ OR $(\text{Sum } C' > 2)$ .....	86
4.4.4.7	DEPI: $COP < 2$ OR $([Bt + 2xCl + Ge + Ls + 2xNa]/R > .24)$ 81	
4.4.4.8	S-CON: $Zd > +3.5$ or $Zd < -3.5$ .....	87
4.4.4.9	S-CON: $Es > EA$ .....	88
4.4.4.10	S-CON: $CF + C > FC$ .....	89
4.4.4.11	S-CON: $X+\% < 7.0$ .....	89
4.4.4.12	S-CON: $P < 3$ or $P > 8$ .....	90
4.4.4.13	S-CON: $\text{Pure } H < 2$ .....	91
4.4.4.14	S-CON: $R < 17$ .....	91
4.4.4	THEORETICAL BASIS OF EXNER'S COMPREHENSIVE SYSTEM.....	92
<b>4.5</b>	<b>THE THEORETICAL UNDERSTANDING OF DEPRESSION IMPLICIT IN THE BDI-II, MMPI-2 AND EXNER'S COMPREHENSIVE SYSTEM.....</b>	<b>93</b>
4.5.1	INTRODUCTION.....	93
4.5.2	THE PSYCHOANALYTIC APPROACH.....	94
4.5.3	THE COGNITIVE APPROACH.....	98
4.5.4	THE BIOMEDICAL AND THE BIO-PSYCHO-SOCIAL MODELS.....	101
4.5.5	CONCLUSION.....	106
4.5.5.1	Linear causality.....	106
4.5.5.2	Focus on the individual.....	107



4.5.5.3 Nosological entities.....	107
4.5.5.4 Importance of the patient's history .....	107
<b>4.6 CONCLUSION.....</b>	<b>107</b>
<b>CHAPTER 5: RESEARCH PROCEDURE AND METHOD .....</b>	<b>109</b>
<b>5.1 INTRODUCTION.....</b>	<b>109</b>
<b>5.2 RESEARCH DESIGN.....</b>	<b>109</b>
<b>5.3 PARTICIPANTS.....</b>	<b>111</b>
<b>5.4 RESEARCH INSTRUMENTS .....</b>	<b>113</b>
<b>5.5 PROCEDURE .....</b>	<b>114</b>
5.5.1 STAGE ONE.....	114
5.5.2 STAGE TWO .....	114
5.5.3 STAGE THREE.....	114
5.5.4 STAGE FOUR.....	115
5.5.5 STAGE FIVE .....	115
5.5.6 STAGE SIX .....	116
5.5.7 STAGE SEVEN .....	116
<b>5.6 STATISTICAL ANALYSES .....</b>	<b>116</b>
5.6.1 DESCRIPTIVE STATISTICS .....	116
5.6.2 ITEM ANALYSES.....	117
5.6.3 RELIABILITY ANALYSIS.....	118
5.6.4 VALIDITY .....	119
5.6.5 FACTOR ANALYSES.....	120
5.6.6 CORRELATION ANALYSES .....	123
5.6.7 THE MANN-WHITNEY U-TEST.....	123
<b>5.7 CONCLUSION.....</b>	<b>124</b>
<b>CHAPTER 6: RESULTS.....</b>	<b>125</b>
<b>6.1 INTRODUCTION.....</b>	<b>125</b>
<b>6.2 THE STRUCTURED QUESTIONNAIRE.....</b>	<b>125</b>
6.2.1 DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE.....	125
6.2.1 REFERRAL.....	126
6.2.1.1 Source of referral.....	126
6.2.1.2 Reasons for referral .....	126
6.2.2 MEDICAL BACKGROUND .....	129
6.2.3 PRESENTING SYMPTOMS .....	129
6.2.4 EFFECT OF THE ILLNESS ON WORK PERFORMANCE.....	133
6.2.5 FEELINGS ABOUT BEING ILL.....	134



6.2.6	FEELINGS ABOUT SELF .....	135
6.2.7	PHYSICAL COMPLAINTS.....	138
6.2.8	METHOD OF SUICIDE ATTEMPTS.....	139
6.2.9	CAUSES.....	140
6.2.9.1	<i>Problems related to the cause of the illness</i> .....	140
6.2.9.2	<i>Causes of the illness</i> .....	143
6.2.9.3	<i>Stressors</i> .....	144
<b>6.3</b>	<b>THE BECK DEPRESSION INVENTORY .....</b>	<b>148</b>
6.3.1	FACTOR ANALYSIS.....	148
6.3.2	ITEM ANALYSIS.....	149
6.3.3	MEAN SCORES AND CATEGORIES OF SEVERITY .....	151
6.3.4	GENDER AND AGE.....	151
<b>6.4</b>	<b>THE MMPI-2 .....</b>	<b>151</b>
6.4.1	IMPRESSION OF THE MMPI-2 .....	151
6.4.1.1	<i>Difficulty</i> .....	152
6.4.1.2	<i>Tricky</i> .....	152
6.4.1.3	<i>Confusing</i> .....	153
6.4.1.4	<i>Boring</i> .....	154
6.4.1.5	<i>Stressful</i> .....	155
6.4.1.6	<i>Helpful</i> .....	156
6.4.1.7	<i>Suggestions</i> .....	156
6.4.1.8	<i>Conclusion</i> .....	158
6.4.2	DIAGNOSES ACCORDING TO THE MMPI-2.....	158
6.4.3	ANALYSES OF THE VALIDITY SCALES, CONTENT SCALES AND CRITICAL ITEM SCALES OF THE MMPI .....	162
6.4.3.1	<i>Validity scales</i> .....	162
6.4.3.2	<i>Content Scales</i> .....	164
6.4.3.3	<i>Critical Item Scales</i> .....	166
6.4.4	CORRELATIONS BETWEEN CONTENT AND CRITICAL ITEM SCALES.....	167
6.4.5	ITEM ANALYSES OF CRITICAL ITEM SCALES.....	167
<b>6.5</b>	<b>THE RORSCHACH INKBLOT TEST.....</b>	<b>172</b>
6.5.1	THE DEPRESSION INDEX (DEPI) .....	172
6.5.2	THE S-CONSTELLATION (S-CON).....	176
<b>6.6</b>	<b>CORRELATION BETWEEN VARIOUS SCALES.....</b>	<b>178</b>
<b>6.7</b>	<b>CONCLUSION.....</b>	<b>180</b>
<b>CHAPTER 7: INTERPRETATION AND DISCUSSION.....</b>		<b>181</b>
<b>7.1</b>	<b>INTRODUCTION .....</b>	<b>181</b>
<b>7.2</b>	<b>DEMOGRAPHIC CHARACTERISTICS .....</b>	<b>181</b>
7.2.1	AGE .....	181
7.2.2	GENDER .....	181



7.2.3	MARITAL STATUS .....	182
7.2.4	OCCUPATION.....	183
7.2.5	RELIGION .....	184
7.2.6	REFERRAL.....	184
7.2.6.1	<i>Source of referral</i> .....	184
7.2.6.2	<i>Medical conditions</i> .....	185
7.2.6.3	<i>Reasons for referral</i> .....	186
7.2.7	PRESENTING SYMPTOMS .....	187
7.2.8	FEELINGS ABOUT SELF .....	187
7.2.9	SUICIDE ATTEMPTS .....	189
7.2.10	CAUSES OF THE ILLNESS.....	189
7.2.10.1	<i>Family problems</i> .....	190
7.2.10.2	<i>Work-related problems</i> .....	190
7.2.10.3	<i>Unemployment and financial problems</i> .....	191
7.2.10.4	<i>Other causes</i> .....	191
<b>7.3</b>	<b>MMPI-2 .....</b>	<b>192</b>
7.3.1	IMPRESSION OF THE MMPI .....	192
7.3.2	VALIDITY SCALES.....	193
7.3.3	DIAGNOSES ON THE MMPI .....	197
7.3.4	CONTENT SCALES.....	200
7.3.5	CRITICAL ITEM SCALES.....	203
7.3.5.1	<i>Item analyses of the Critical Item Scales</i> .....	203
7.3.5.2	<i>Mean scores on the Critical Item Scales</i> .....	204
7.3.5.3	<i>Gender and age</i> .....	205
7.3.6	CORRELATION BETWEEN THE CONTENT SCALES AND CRITICAL ITEM SCALES .....	206
7.3.7	CONCLUSION.....	207
<b>7.4</b>	<b>THE BDI-II.....</b>	<b>207</b>
<b>7.5</b>	<b>THE RORSCHACH INKBLOT TEST .....</b>	<b>209</b>
7.5.1	THE DEPRESSION INDEX (DEPI) .....	209
7.5.1.1	<i>Mean score, age and gender</i> .....	209
7.5.1.2	<i>DEPI Indicators with high frequencies</i> .....	210
7.5.1.3	<i>DEPI Indicators with low frequencies</i> .....	214
7.5.2	THE S-CONSTELLATION (SUICIDE POTENTIAL) (S-CON).....	218
7.5.2.1	<i>Mean score, age and gender</i> .....	218
7.5.2.1	<i>S-CON indicators with high frequencies</i> .....	219
7.5.2.1	<i>S-CON indicators with low frequencies</i> .....	221
<b>7.6</b>	<b>CORRELATION BETWEEN VARIOUS SCALES.....</b>	<b>223</b>
<b>7.7</b>	<b>COMPARISON BETWEEN THE BDI, THE MMPI AND THE RORSCHACH .....</b>	<b>223</b>

<b>CHAPTER 8: INTRODUCTION.....</b>	<b>231</b>
<b>8.2 SUMMARY OF THE STUDY.....</b>	<b>232</b>
<b>8.3 EVALUATION OF THE STUDY .....</b>	<b>238</b>
<b>8.4 IMPLICATIONS OF THE STUDY .....</b>	<b>240</b>
<b>8.5 RECOMMENDATIONS.....</b>	<b>242</b>
<b>8.6 CONCLUSION.....</b>	<b>243</b>
<b>REFERENCES LIST .....</b>	<b>245</b>
<b>APPENDIX A: ADDITIONAL DETAIL REGARDING CONTENT AND DETERMINANT SCORING ON THE RORSCHACH .....</b>	<b>264</b>
<b>APPENDIX B: THE STRUCTURED QUESTIONNAIRE.....</b>	<b>273</b>
<b>APPENDIX C: IMPRESSIONS ON THE MMPI.....</b>	<b>275</b>

## LIST OF TABLES

TABLE 1: REASONS FOR REFERRALS.....	127
TABLE 2: PRESENTING SYMPTOMS.....	130
TABLE 3: FEELINGS ABOUT BEING ILL .....	134
TABLE 4: FEELINGS ABOUT SELF .....	136
TABLE 5: PHYSICAL COMPLAINTS.....	138
TABLE 6: METHODS OF SUICIDE ATTEMPTS.....	140
TABLE 7: PROBLEMS GIVEN AS THE CAUSE OF ILLNESS.....	141
TABLE 8: CAUSES OF ILLNESS .....	143
TABLE 9: STRESSORS.....	144
TABLE10: FACTOR LOADINGS ON THE BDI-II FOR A ONE-FACTOR SOLUTION.....	149.
TABLE 11: THE BDI-II ITEM ANALYSIS .....	150
TABLE 12: REASONS FOR FINDING THE MMPI-2 DIFFICULT).....	152
TABLE 13: REASONS FOR FINDING THE MMPI-2 TRICKY .....	153
TABLE 14: REASONS FOR FINDING THE MMPI-2 CONFUSING.....	154
TABLE15: REASONS FOR FINDING THE MMPI-2 BORING .....	155
TABLE 16: REASONS FOR FINDING THE MMPI-2 STRESSFUL.....	155
TABLE 17: REASONS FOR FINDING THE MMPI-2 HELPFUL.....	156
TABLE 18: SUGGESTIONS.....	157
TABLE 19: TOTAL NUMBER OF CLINICAL DIAGNOSES ACCORDING TO THE MMPI-2.....	157
TABLE 20: FIRST CLINICAL DIAGNOSES ACCORDING TO THE MMPI-2 .....	160
TABLE 21: DESCRIPTIVE STATISTICS FOR THE VALIDITY SCALES OF THE MMPI-2.....	163
TABLE 22: FREQUENCIES ABOVE CUT-OFF .....	164
TABLE 23: DESCRIPTIVE STATISTICS FOR THE CONTENT SCALES OF THE MMPI-2 (TOTAL SAMPLE).....	164.
TABLE 24 : MEAN SCORES ON VALID AND INVALID PROTOCOLS: CONTENT SCALES.....	165



TABLE 25: DESCRIPTIVE STATISTICS FOR CRITICAL ITEM SCORES ON THE MMPI-2 .....	166
TABLE 26: CORRELATIONS BETWEEN CONTENT SCALES AND CRITICAL ITEM SCALES.....	167
TABLE 27: ITEM ANALYSIS OF ACUTE ANXIETY STATE (KOSS-BUTCHER CRITICAL ITEMS),.....	168
TABLE 28 : ITEM ANALYSIS OF DEPRESSED SUICIDAL IDEATION (KOSS- BUTCHER CRITICAL ITEMS).....	169
TABLE 29: ITEM ANALYSIS OF FAMILY CONFLICT (LACHAR-WROBEL CRITICAL ITEMS).....	170
TABLE 30: ITEM ANALYSIS OF SOMATIC SYMPTOMS (LACHAR-WROBEL CRITICAL ITEMS).....	171
TABLE 31: FREQUENCIES OF THE PRESENCE OF DEPRESSION INDEX INDICATORS .....	173
TABLE 32: PATTERNS OF ENDORSED ITEMS ON THE DEPRESSION INDEX.....	174
TABLE 33: FREQUENCIES WITH WHICH THE ITEMS ON THE SUICIDE CONSTELLATION WERE ENDORSED. ....	176
TABLE 34: CORRELATIONS BETWEEN THE BDI-II, DEPI, S-CON, AND RELEVANT MMPI-2 CRITICAL ITEM SCALES .....	179

## LIST OF FIGURES

<b>FIGURE 1 : REASON FOR REFERRAL.....</b>	<b>128</b>
<b>FIGURE 2: PRESENTING SYMPTOMS.....</b>	<b>132</b>
<b>FIGURE 3: FEELINGS ABOUT BEING ILL.....</b>	<b>135</b>
<b>FIGURE 4: FEELINGS ABOUT SELF.....</b>	<b>137</b>
<b>FIGURE 5: PHYSICAL SYMPTOMS.....</b>	<b>139</b>
<b>FIGURE 6: STRESSORS.....</b>	<b>146</b>
<b>FIGURE 7: BDI- 11 CATEGORIES OF SEVERITY FOR MMPI DIAGNOSES OF MOOD-RELATED DISORDERS.....</b>	<b>161</b>

## CHAPTER 1

### INTRODUCTION

#### 1.1 INTRODUCTION

Depression was first recognised as a clinical syndrome by ancient people more than 2000 years ago. Although this illness has been known for centuries, it continues to be one of the most severe psychiatric illnesses afflicting adults. In Africa there are still many unresolved issues regarding the nature and treatment of depression. As a result, progress in the treatment of this illness is essentially behind.

Early researchers like Carothers (1947) reported that depression was rare among Africans, and by implication a disease afflicting mostly non-Africans. Contrary reports since around 1960 (e.g. German, 1987; Hollifield, Katon, Spain & Pule, 1990; Jegede, 1979; Orley & Wing, 1979; Pretorious, 1986; Strebel & Msomi, 1999) show that the incidence of depression in Africa is actually more or less the same as in Western countries, with the only difference being in the way in which the symptoms are presented.

It was commonly believed at first that Africans, when depressed, present with somatic complaints, as opposed to the more affective and cognitive symptoms found among people of Western descent. The masking of classic affective and cognitive symptoms of depression behind somatic complaints makes depression difficult to diagnose, and easily leads to diagnosing patients for a medical condition. This could have serious consequences for patients and their families, leading to greater psychiatric morbidity due to misdiagnosis and inappropriate treatment. If necessary treatment, that brings relief to the patients at an early stage, is not provided, it may lead to prolonged suffering and sometimes suicide.

Whereas patients are sometimes blamed for not seeking professional help when they suffer from depression, Gold (1995) also found that many physicians and mental

health workers fail to detect depression. One possible reason for this could be related to the lengthy and tedious assessment methods that are used for the diagnosis of depression. This may lead to clinicians taking shortcuts and eventually missing out on important clues for depression. Angst (1997) indicates that it is essential for clinicians to gain a better understanding and recognition of the nature of depression. Until depression receives the attention and treatment it deserves, this situation remains a challenge to all mental health service providers in Africa.

Difficulties experienced when diagnosing depression in African communities add to the under-diagnosis of depression. These difficulties include the practitioner's unfamiliarity with the patient's language, as well as cultural influences in the experience and presentation of the illness. It is therefore of significant importance that mental health practitioners focus on objective measures that have verifiable criteria of classification, based on behavioural manifestations that are commonly found among depressed Africans.

This study therefore sets out to search for a comprehensive diagnostic approach that is inclusive of cultural beliefs applicable to African communities. In this way, mental health service delivery could be facilitated.

## **1.2 MOTIVATION FOR THE STUDY**

Various studies (e.g. German, 1987; Rwegellera & Mambwe, 1977) performed in sub-Saharan Africa show that clinical depression is common among Africans. However, this illness remains under-diagnosed and the majority of people suffering from it are subsequently left untreated and/or mismanaged. Several reasons are given for this:

Cultural beliefs and practices are important factors leading to the misdiagnosis of depression in Africans. For instance, Africans are not inclined to consult health professionals for emotional problems. If one does, this is interpreted as a sign of emotional weakness. Men in particular are inclined to hold this attitude and

consequently rarely consult health professionals when they experience emotional problems (Verster & Gagiano, 1995). If a man does not put value to treatment, this is likely to influence the rest of the family negatively. Consequently, the whole family may be reluctant to go for such services. This in itself has serious implications for the effective delivery of mental health services in Africa.

As stated above, literature (for a review, see German, 1987) shows that depression in Africans presents with a distinct clinical picture. When depressed, Africans show it with excessive physical, rather than psychological complaints. Certain studies (Asuni, 1994; Binitie, 1975; Jegede, 1979; Prince, 1968) however emphasize that the presentation of depression in Africans is related to demographic factors. People in urban areas are thus more inclined to express their depressive symptoms psychologically, whereas those in rural areas still tend to show their depression with somatic symptoms.

To the extent that depression is masked behind physical symptoms, it is often misdiagnosed and a physical condition is diagnosed instead. Consequently, the patient is treated for a non-existing medical condition or, conversely, the treatment may be focused on depression, while a serious physical condition might be ignored.

Recently the World Health Organization (WHO) (2000) reported that depressive illnesses are the commonest mental disorders and the fastest spreading. It further reported that for every five people suffering from depression and seeing a medical doctor, one is misdiagnosed and by the year 2020, depression would be the third killer in the world. Projections such as these are disturbing and warrant that mental health clinicians take them seriously in order that this scourge can be prevented.

In the light of the reported widespread occurrence of depression, the challenge of control and prevention of clinical depression in African communities is not the responsibility of mental health practitioners only, but involves all stakeholders in the health care system. On the part of mental health clinicians, an important solution lies in designing diagnostic methods that not only *identify symptoms* of depression, but

also lead to an *understanding of the condition* when dealing with African patients. This approach should be comprehensive enough and contain the capacity to accommodate African cultural beliefs and practices. The cognitive, affective and the physical aspects of depression should form part of the diagnostic approach, so that it is easy for clinicians to elicit depressive symptoms in this community. This study, it is believed, will contribute towards the understanding and diagnosis of depression in African communities, and to the field of psychology.

### 1.3 OBJECTIVES OF THE STUDY

The aim of this study is to identify a comprehensive diagnostic approach that can be used to detect clinical depression among African patients.

To achieve this aim, the usefulness of various instruments for the diagnosis of depression among Black was examined. The Beck Depression Inventory (Second Edition) (BDI-II) (Beck, Steer & Brown, 1996), the Minnesota Multiphasic Personality Inventory (Revised) (MMPI-2) (Butcher & Williams, 1996) and the Rorschach Inkblot Test (scored in terms of Exner's (1993) Comprehensive System) were investigated. With regard to the MMPI-2, the focus was on the usefulness of relevant Critical Item Scales, and with regard to the Rorschach, the Depression Index and the Suicide Constellation were examined. In addition, a Structured Questionnaire was compiled by the researcher to obtain background information on the patients who participated in the study. These instruments, and substantiation for selecting them, are described in Chapters four and five.

It should be emphasized that it is not the intention of this study to suggest any solution to the treatment of depression or to look at the etiology and prevention of depression in African communities, but rather to suggest a comprehensive diagnostic approach for depression in Africa.

#### **1.4 OVERVIEW OF THE STUDY**

In order to attain the above-mentioned objective, a sample of 162 depressed adult Black South African patients were selected to participate in the study. They completed a structured psychological questionnaire (designed by the researcher), as well as the following three instruments: The Beck Depression Inventory II (BDI-II) (Beck, Steer & Brown, 1996), the Minnesota Multiphasic Personality Inventory (2<sup>nd</sup> Edition) (MMPI-2) (Butcher & Williams, 1996) and the Rorschach Inkblot Test, scored according to Exner's (1994) comprehensive approach. The data was analysed with appropriate statistical methods, such as item analysis, reliability analysis, factor analysis, and correlation analysis, in order to determine the usefulness of these various measurement instruments in the diagnosis of depression.

This document comprises eight chapters. Following the present chapter, Chapter two comprises a detailed description of the nosological diagnosis of depressive disorders. Chapter three is a literature review with regard to depression, with specific reference to the African context, while Chapter four deals with the diagnostic instruments used in this study. Chapter five discusses the research method followed during the study, whereas Chapter six contains the research results. Chapter seven comprises of the interpretation of these results. The final chapter sets out conclusions and recommendations based on the findings of the study.

## CHAPTER 2

### THE DIAGNOSIS OF DEPRESSION

#### 2.1 INTRODUCTION

This study is situated within the nosological approach to depression. This chapter is accordingly introduced with a discussion on the nature and legitimacy of nosological diagnoses. This discussion is followed by a description of the nosological categories of depression relevant to the study.

#### 2.2 DIAGNOSIS

Diagnosis in this study refers to the art of distinguishing one disease or condition from another. In clinical practice, examining signs and symptoms, and classifying them into disease entities determine the nature of diseases. In making a diagnosis, there is also the possibility of *diagnosis by exclusion*, referring to the recognition of a disease by the exclusion of all other known diseases. When the clinical findings of two or more diseases are systematically compared and contrasted, this is referred to as *differential diagnosis*. When making a diagnosis, clinicians often use scientific methods such as laboratory investigations and procedures (Dorland's Illustrated Medical Dictionary, 1974).

The role of diagnosis in psychology is sometimes viewed with skepticism for its labeling effect. However, despite this limitation, formal diagnosis in psychology has advantages that supersede the negative attitude towards diagnosis. In routine clinical practice and in research studies, diagnosis is one of the key functions of the clinician. Its importance is not only founded in theoretical issues such as nosology and characterisation of the illness, but also lies in its fundamental importance to treatment planning and prognostication (Owens, 2000). The accuracy of the assessment plays a major role in assisting clinicians to predict patient responses to treatment with a fair degree of accuracy. The benefit goes to a patient, inasmuch as it saves time, costs and



contributes towards providing relevant treatment. For example, the clinician is enabled to decide as to whether a depressed patient will need medication or whether he/she could be treated with a psychological form of therapy only.

Kaplan and Sadock (1996) refer to the importance of a medical diagnosis as that of making inferences about the etiology of a disorder, as well as choosing a specific treatment. This is further supported by Campbell (1996), who states that diagnosing mental illnesses in clinical psychology is centrally important to assist psychologists when they plan for relevant intervention strategies for patients. It is the opinion of Owens (2000) that people who are ill need to be diagnosed and treated, and that it is therefore important for clinical psychologists to familiarise themselves with an appropriate diagnostic framework, such as the Diagnostic and Statistical Manual, 4<sup>th</sup> Edition (DSM-IV) (American Psychiatric Association (APA), 2000), in order to arrive at uniformed diagnoses. It can furthermore be stated that, when psychologists attempt to make a psychological formulation in courts of law without using a standard diagnostic approach, the likelihood is that they might differ from a psychiatrist who uses the DSM-IV. If psychologists do not use a point of referral such as the DSM-IV, a negative impression of psychologists and the profession as a whole may be created in courts. The conclusion reached from this is that, while psychologists may wish to abandon the diagnosis of their patients, it will not prevent diagnosis from being used widely in the foreseeable future.

Diagnoses are clinically useful when they are *reliable* and *valid*. The former term refers to consistency while the latter refers to the accuracy of a diagnosis. If people work without an uniformed approach, relying wholly on the judgement of individual examiners, the reliability of a diagnosis may be compromised. It is of equal importance that a diagnosis should be accurate in predicting treatment response and clinical course (predictive validity) and able to describe the disease by characteristic features that will distinguish it from other disorders (descriptive validity). These are the cornerstones of a scientific, objective diagnosis.

The purposes of a psychiatric diagnosis as:

- facilitating communication between clinicians;
- assisting them to predict outcome, and to decide on an appropriate treatment and monitoring it;
- being useful in litigation and legal matters;
- making decisions about insurance coverage.

It is important that clinicians are careful when making a diagnosis, as it holds significant legal and financial implications for the patient (Kaplan and Sadock, 1996).

Although the DSM-IV has an organised way of accounting for the nature of depression, it is the belief of the researcher that a purely medical approach in itself is not sufficient to adequately identify an illness. Such an approach could be uniform, but does not necessarily encompass cultural practices of all nations, especially those in Africa. It is therefore necessary that mental health care practitioners take the realities of local demographics, socio-economic conditions and cultural values into account when dealing with depression in Africa.

The DSM-IV (Text Revision) (APA, 2000) has attempted to accommodate cultural aspects, together with age and gender, in order to address the issue of misdiagnosis. According to the text-revised edition of the DSM-IV, culture can influence the way depression and communicating symptoms are experienced. By being cautious to ethnic and cultural specificity when dealing with depression, its misdiagnosis can be reduced. Concepts of masked depression, where depression is represented by somatic complaints, are implied in the text. Concepts such as *nerves*, *heart-brokenness*, *weakness* and *headache* are mentioned as terms used by individuals when going through a depressive episode. A distinction needs to be made between culture-specific symptoms such as *being bewitched*, or *feeling heat in the head*, and real delusions and hallucinations, when a diagnosis of depression with psychotic features is made. Clinicians need to be cautious not to dismiss a symptom merely because it is viewed as a norm in a particular culture.

## 2.3 CLINICAL DEPRESSION

Clinical depression is used to describe moods and when manifested as a cluster of affective symptoms, it is termed *mood disorders*. Depression is used collectively to refer to symptoms such as feelings of sadness, irritability, discouragement and despondence. It may also include a variety of physical symptoms. Depression may be secondary to an underlying physical or mental disorder; or it may itself be a specific mental disorder (APA, 1998).

Clinical depression must be distinguished from feelings of grief and melancholy as a reaction to the death of a loved one or some other unfortunate circumstances. According to Gold (1995), depression can be a normal human emotion of sorrow in response to disappointment or loss. Experiencing failure commonly results in temporary self-devaluation, while personal losses cause feelings of sadness and disappointment that usually pass after a short time.

According to Majodina & Johnson (1983) clinical depression is not just *feeling blue*. It is a disorder that persistently affects one's physical, emotional, and social functioning. In clinical depression, no bad mood feels quite as miserable, and seems to last so long. The afflicted person feels physically and emotionally drained, indicating that the person is not going through ordinary blues but is experiencing clinical depression which requires appropriate intervention. The ultimate consequence of depression is suicide and (WHO) (2001) reports that this illness will be the third largest killer by the year 2020.

Depressive symptoms can be categorised into the following (Lester & Akande, 1995; Majodina & Johnson, 1983).

### **Emotional symptoms**

Emotional symptoms of depression include:

- persistent depression or gloomy mood or sadness

- guilt feelings
- self blame
- irritability
- excessive worry
- crying for no apparent reason
- feelings of worthlessness, hopelessness, helplessness and emptiness
- pervasive inability to experience pleasure in usually enjoyable activities, including sex and social activities

### **Physical and vegetative symptoms**

Physical and vegetative symptoms of depression include:

- gastrointestinal tract disturbances, such as constipation and abdominal pains
- general unexplained aches and body pains
- reduced energy and vitality
- persistent headache
- disturbances in appetite and sleep

### **Cognitive symptoms**

Cognitive symptoms of depression include:

- disturbed or poor judgement
- recurring thoughts of suicide / death
- inability to make decisions
- impaired memory and concentrating

## **2.4 MASKED DEPRESSION**

According to Verster and Gagiano (1995) the concept *masked depression* appeared in the medical literature from late 1960 to early 1980 and since then very little has been published about it. The term *masked depression* is used to describe a depressive illness in which somatic symptoms occupy the foreground. It is a condition where physical

symptoms predominate and the classic cognitive and affective symptoms of depression are hidden behind a variety of somatic complaints. Somatic symptoms play a major role in the expression of depression and this is reported to be a common phenomenon among Africans (Gillis, Welman, Koch & Joyi, 1991; Makanjuola & Olaifa, 1987).

In masked depression, the complaints are referable to every system of the body. Patients often complain of headaches, dizziness, a sensation of something moving about inside the head, pains all over the body, feelings of pressure in the chest, fatigue, weight loss, sleep problems and loss of libido. According to Westaway and Wolmarans (1992), the relationship between physical symptoms and depression is a major source of difficulty in the diagnosis of depression. The prevalence of Major Depression in a primary care setting is estimated to be 6% to 9%. As many as 35% to 50% of these patients are not diagnosed (Gold, 1995; Goldberg, Cooper, Eastwood, & Kelnard, 1970; Hales, 1989; Quinn, 1997).

A patient who presents with abnormal bodily sensations, headaches and pains is likely to seek treatment elsewhere, for what she / he believe is a physical, bodily malfunction, rather than from a mental health professional. As a result such patients are likely to be incorrectly diagnosed and treated symptomatically with little success (APA, 2000; Binitie, 1975). Despite depression being one of the most common conditions and fastest spreading mental illnesses world-wide, little has been done to curb this scourge, as it often goes undetected and untreated (Carney, Rhodes, Elliason, Badger, Rand, Neiswender, Owen & Dietrich, 1998). This author presume that people with depression are most likely to seek relief from their primary care givers (such as family physicians) rather than from mental health providers. Most of those suffering unknowingly from depressive illness see their family physician first for physical symptoms. Even in the case where the depressed patient may have classic complaints of sadness and despair, this condition is often disguised by multiple somatic complaints such as unexplained fatigue and pains. Depressive disorders are common in primary health care settings and the clinician who, when interviewing patients, uses effective questioning in the pursuit of certain symptoms, is more likely

to reveal cases of depression (Carney et al; 1998; Garrard, Rolnick, Nitz, Luepke, Jackson, Fischer, Leisbon Bland, Heinrich, & Waller, 1998).

Westaway and Wolmarans (1992), reported that somatisation is a powerful tool used in all cultures to obtain care, love and sympathy in a legitimate manner.

## **2.5 MAJOR DEPRESSION**

Major Depression is the most severe of the depressive disorders. It is a complex psychological state characterised by a sustained lowering of mood, sense of worthlessness, dim hopes for the future, and withdrawal from family, friends and colleagues. Feelings of guilt, inferiority, hopelessness, confusion, forgetfulness, and lack of energy are distinctive. Patients exhibit signs of psychomotor retardation such as slowed speech and gait. Major Depression, especially when accompanied by chronic illness, is associated with a high risk of disability and suicide. From time to time, psychotic symptoms dominate the picture of Major Depression (Subhash, Bhalta & Shashi, 1997).

According to APA (2000) the essential feature of a major depressive episode is a period of at least two weeks during which there is either a depressed mood or loss of interest or pleasure in nearly all activities. The Diagnostic and Statistical Manual of Mental Disorders 1V- TR (DSM-1V-TR) criteria for Major Depressive Disorder are as follows: (APA, 2000)

- A. Presence of a single or more major depressive episode(s) with the following features:
1. Depressed mood most of the day, (nearly every day), as indicated by either subjective report (e.g. feeling sad or empty) or being tearful.
  2. Marked diminished interest or pleasure in almost all activities (most of the day and nearly every day).

3. Significant weight loss when not dieting, or weight gains, or decreases or increases in appetite (nearly every day).
  4. Insomnia and/or hypersomnia (nearly every day).
  5. Psychomotor agitation or retardation (nearly every day) or being restless or slowed down.
  6. Fatigue or loss of energy (nearly every day).
  7. Feelings of worthlessness or excessive or inappropriate guilt (nearly every day).
  8. Diminished ability to think or concentrate, or being indecisive (nearly every day).
  9. Recurrent thoughts of death, recurrent suicidal ideation with or without a specific plan.
- B. The symptoms cause clinically significant distress or impairment in social, occupational or other important areas of functioning.
- C. The symptoms are not due to direct physiological effects of a substance, drug or medical condition.
- D. The symptoms are not better accounted for by Bereavement (for example after the loss of a loved one), the symptoms persist for longer than two months and/or are characterised by marked functional impairment, morbid preoccupation with worthlessness, suicidal ideation, psychotic symptoms or psychomotor retardation.
- E. The symptoms do not meet criteria for a Mixed Episode.

If all the criteria for a Major Depressive Episode are met, the clinician is to specify its current clinical status, i.e. whether mild, moderate, severe without psychotic features or severe with psychotic features (APA, 2000).

## **2.6 DYSTHYMIA**

Dysthymia is a chronic, low-grade depression or depressive state that persists for at least two years, despite brief moments of emotional reprieve in which an individual experiences a normal mood. These fleeting euthymic moods do not last for many months at a time. Dysthymia is diagnosed when symptoms last for a few years with

few interruptions and the symptoms are less severe than in Major Depression. It is a clinical syndrome consisting of a lowered mood tone, and loss of interest in pleasure in comparison with the subject's premorbid state. Psychomotor agitation or retardation, and difficulties in thinking (accompanied by fatigue or loss of energy) are common. The depressed person may attempt suicide or contemplate it (Campbell, 1996).

Physical and vegetative symptoms of Dysthymia include sleep disturbances (insomnia/hyperactivity), diurnal variation of mood, loss of appetite, constipation, headaches, loss of libido and in women amenorrhoea (Campbell, 1996).

Dysthymia is also characterised by considerable distress and functional impairment. Some patients with Dysthymia complain of lifelong difficulties with interpersonal relationships, low self-esteem, chronic pessimism and minimal self-confidence. Dysthymia, which is common in young adult women, may be exacerbated by periods of stress. Years of depression may leave patients with patterns of negative thinking, a self-critical attitude, passivity and dependency (Subhash, et al; 1997).

The DSM- 1V- TR diagnostic criteria for Dysthymic Disorder are as follows: (APA, 2000)

- A. Depressed mood for most of the day, for more days than not, as indicated either by subjective account or observation by others, for at least two years.
- B. Presence when depressed, of two (or more) of the following:
  - poor appetite or overeating
  - insomnia or hypersomnia
  - low energy or fatigue
  - low self-esteem
  - poor concentration or difficulties making decisions.
- C. During the two-year period the person has never been without the symptoms in criteria A and B.
- D. No major depressive illness has been present during the first two years of the disturbance.



- E. There has never been a manic episode and the criteria have never been met for Cyclothymic Disorder.
- F. The disturbance does not occur exclusively during the course of a Psychotic Disorder.
- G. The symptoms are not due to direct physiologic effects of a substance or general medical condition.
- H. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning (APA, 2000).

## **2.7 ADJUSTMENT DISORDER**

According to APA (2000), the essential feature of Adjustment Disorder is a psychological reaction to an identifiable stressor or stressors, resulting in the development of clinically significant emotional or behavioural symptoms. The symptoms must develop within three months after the onset of the stressor. Adjustment Disorder is as a matter of fact, an imprecise term for a variety of symptoms, including anxiety, depression, or disturbances of conduct that develop in response to an identifiable stressor. For a diagnosis of Adjustment Disorder with Depressed Mood, the predominant manifestations are symptoms such as depressed mood, tearfulness or feelings of hopelessness (Campbell, 1996).

Adjustment Disorder with Depressed Mood, also known as reactive depression, thus develops as a result of a significant life stressor such as divorce or major illness. Symptoms of an Adjustment Disorder with Depressed Mood persist longer than normal grief reactions and may progress to Major Depression. The duration of the disorder is usually less than six months. If it extends beyond that time, it is usually specified as a persistent or chronic Adjustment Disorder (Campbell, 1996).

Attempts to quantify symptoms in terms of severity and duration, and to differentiate between stress of varying duration and intensity, have not been wholly successful when making a diagnosis of Adjustment Disorders (Subhash, et al; 1997).

The DSM- 1V- TR diagnostic criteria for Adjustment Disorder are as follows: (APA, 2000)

- A. Development of symptoms in response to an identifiable stressor, occurring three months of the onset of the stressor(s).
- B. These symptoms are clinically significant as evidenced by either of the following:
  - marked distress that is in excess of what would be expected from exposure to the stressor.
  - significant impairment in social or occupational functioning.
- C. The stress-related disturbance does not meet the criteria for another specific Axis 1 disorder and is not merely an exacerbation of a pre-existing Axis 1 or Axis 11 disorder.
- D. The symptoms do not represent Bereavement.
- E. Once the stressor has terminated, the symptoms do not persist for more than an additional six months.

Adjustment Disorders may occur in any group of people and they are more common in women than in men. Individuals' cultural beliefs need to be taken into consideration because the nature, meaning, and experience of the stressors may vary across cultures (APA, 2000).

## 2.8 CONCLUSION

This study deals with the diagnosis of depression among Black patients. As will be indicated later, the initial diagnosis of depression in the patients who participated in the study was made according to the DSM-IV, which is a nosological diagnostic approach. It was accordingly necessary to describe the DSM-IV criteria for the diagnosis of various forms of depression, and to differentiate these syndromes from each other and from depression as a normal emotional reaction. Since it is commonly reported in the literature that African patients often present with somatic complaints, the concept of masked depression was also introduced in this chapter. The next chapter deals with clinical depression in Africa.

## CHAPTER 3

### CLINICAL DEPRESSION IN AFRICA

#### 3.1 INTRODUCTION

A literature review on clinical depression in Africa is presented in this chapter. The first part deals with studies relating to the prevalence of depression in Africa. It is indicated that earlier research reported that the occurrence of clinical depression was relatively rare in Africa, whereas later research found no significant differences between the prevalence of the syndrome in Africa and the developed world. One of the reasons for the earlier reports has to do with difficulties in the diagnosis of depression in Africa, which lead to under-diagnosis and misdiagnosis. The factors that contributed to this will be explored in this chapter.

To the extent that culture influences the development of mental disorders and their clinical manifestation, it also plays a role in clinical depression. A broad societal knowledge of African culture is essential when dealing with mental illness amongst Africans. It is important for clinicians to know that Africa is a dynamic continent, which has its own cultural heritage, but also uses foreign contributions in the field of science and technology (Mboya, 1999). Swartz (1998) explains culture as a set of guidelines inherited by people of a particular society. These guidelines direct people on how to view the world and experience it and behave in relation to other people, the natural environment and to supernatural forces. Culture is also about ways of passing these guidelines from one generation to another and should therefore be preserved by nations.

In this chapter the manner in which culture could influence psychopathology will be explored. Since cultures are not static, but develop and change, it could be expected that cultural change would be associated with changes in the symptom presentation of

depression among Africans. Accordingly, reference will be made to the role which cultural change, and more specifically acculturation, plays in depression.

### 3.2 PREVALENCE OF DEPRESSION ON THE AFRICAN CONTINENT

Early studies of depression yielded considerable controversy in the literature by giving the impression that this illness is rare or almost non-existent in Africa. According to German (1987), until 1957, 13 out of 14 authors reported that depression was rare and if it existed, it was believed to be short-lived and less severe among Africans. Jegede (1979) reviewed previous research on the prevalence of depression in Africa and summarised the statistical results in order to give insight into the origin of these conclusions. These results are presented below as follows:

YEAR	AUTHOR	PREVALENE OF DEPRESSION
1936	Gordon	saw no cases from 120 cases in Kenya
1936	Watson	0.06 per 1000 in Malawi
1950	Tooth	0.03 per 1000 in Ghana
1951	Carothers	25 out of 1508 in Kenya
1953	Lamont and Blignaut	3 among 258 admissions in South Africa
1956	Smartt	15 of 252 admissions in Tanganyika
1958	Tewflik	3 of 304 admission in Uganda

The average prevalence from the above statistics is less than 2% and this data constitute the source of the widely held belief (until about 1960) that depression was rare or practically non-existent in Africans.

The main contributing factors implied to have misled people to the belief that depression was rare in Africa, are highlighted by both Prince (1968) and German (1987). These include that early prevalence statistics in Africa were based mainly on hospital statistics, consequently ignoring the large numbers of mentally ill people who were never admitted to hospital, those who were treated by traditional doctors in the

village and those convicted to prisons. Factors relating to cultural practices and belief systems of Africans were also not considered when these conclusions regarding the prevalence of depression among Africans were made. In addition, many patients experience difficulties in gaining access to treatment after the onset of significant symptoms and social disability (Van Os, 2000), and this may also contribute to under-representation in prevalence statistics. Africa lacks the wide range of mental health facilities that Western countries have, where 90-95% of mentally and emotionally disturbed persons are catered for in Europe and North America. This lack of facilities could lead to low rates of consultation with mental health professionals, and the consequent under-diagnosis of depression among Africans (German, 1987).

However, the view that depression is rare in Africa has changed. Between 1957 and 1968, a number of papers were published, indicating that depression was a common condition in Africa (German, 1987). A breakthrough in the diagnosis of depression was thus reached when reports from several researchers emerged to show that depressive illness is a common phenomenon among Africans and that differences seem to be determined partly by the clinical picture and partly by cultural differences.

In support of this view, Asuni (1967), Prince (1968), and German (1972) report that although depression is a common phenomenon in Africa, Africans when depressed rarely report feeling unhappy and that ideas of worthlessness and guilt are relatively rare and suicide uncommon. The predominant symptom from depressed Africans is reported to be hypochondriac in nature.

In 1977, in Zambia, Rwegellera and Mambwe (1977) reported similar results that depression was as common in Africa as in any Western country. These researchers reported that confusion about the rarity of depression in Africa was created by practices followed by some of the hospital-based psychiatrists. They did not regard the diagnosis of a mentally ill African patient as important in the practice of psychiatry and ignored using the standardised version of the International Classification of Mental Disorders (ICMD), asserting that it was irrelevant to African psychiatry. Psychiatrists and nurses also commonly initiated treatment with patients before a firm

diagnosis was made. A psychiatric patient would be categorised as *not yet diagnosed* until these psychiatrists and nurses entered a diagnosis in the file of a patient, whom they actually never saw. This practice led to many patients being discharged without a diagnosis, thus further creating the impression of rarity of depression in Africa.

In order to obtain accurate information regarding depression at that time, Rwegellera and Mambwe (1977) requested the attending psychiatrist to make a firm diagnosis before treatment was commenced. From this it was possible to provide a diagnosis based on a clinical interview, in contrast to the initial practice where diagnoses were made without seeing the patient. When the system of first diagnosing patients was imposed, it became clear that depression was not as rare as it was thought to be. The results of this study showed that 53% of all admitted cases were diagnosed as Affective disorders, with endogenous depression being predominant. If the old practice of treating patients without a diagnosis were to be followed, this diagnosis would have been missed. This figure of afflicted people could still have been higher if it was not for problems of language, Africans being unfamiliar with the western mental health system, and negative attitudes towards mental illness.

Similar studies confirming that depression was common in Africa were reported by various other authors, including Hollifield, Katon, Spain and Pule (1990), Jegede (1979), Orley, Blits and Wing (1979), Pretorius (1986) and Strebel and Msomi (1999). According to Jegede (1979), depressive illnesses, as well as suicide rates have been on the increase in Africa since 1960. In a comparative study, Orley, Blits and Wing (1979) found that Ghanaian women from two villages were more depressed than women in London. A study by Hollifield et al. (1990) was performed on a small scale in Maseru to determine the prevalence of panic disorders and Major Depression among the Basotho people. The results showed a higher prevalence of depression as compared to panic disorders. In Nigeria Ifambumuyi, (1983) reported a considerable degree of psychological disturbances in Africa which is especially more prevalent among women.

According to Gijana and Louw (1981), the commonest psychiatric disorders diagnosed at the psychiatric clinics of Umtata General Hospital in South Africa were Schizophrenia, Depression, Epilepsy and Anxiety Disorders. In this study, the second most common clinical category was depression, forming 16.1% of the whole sample. Although these authors found that depression was common, it was hardly ever a presenting affective symptom, since it was frequently masked by a *smiling face* and by physical complaints. It was found that African patients might volunteer information concerning their physical symptoms, such as recurrent long lasting headaches in the mornings, but would not say anything about the remaining symptoms related to depression. The latter symptoms need to be carefully elicited from the patient.

A study done by Pretorius (1986) from the University of Cape Town reported a higher occurrence of depressive symptoms among rural African language speaking students than among white urban students.

Strebel and Msomi (1999) carried out an archival epidemiological study at the Trauma Centre for Survivors of Violence and Torture in the Western Cape. Gender and racial differences related with demographics, diagnosis and management were looked into during hospitalisation and on discharge. The results of this study showed that the major diagnostic categories overall were Mood disorders (Major Depressive episode, Bipolar Disorder and Dysthymia) and Schizophrenic disorders. It was found in this study that the majority of Black and Coloured patients received the diagnosis of Schizophrenia and Mood disorders, whereas white patients were mainly diagnosed with Mood disorders and Substance-related Disorders.

The conclusive impression gained from these studies is that it was widely believed until around 1960, that depression was rare among Africans and subsequently, the general agreement was that depression is an illness that commonly afflicts Africans. The diagnosis of depression in Africans has been beset with considerable difficulties mainly due to the clinical picture of the patients. The culture-dependent nature of certain symptoms, especially Somatisation, complicates diagnosis by mental health clinicians that were trained within a Western framework. In view of the growing

awareness that depression often presents with somatic symptoms, care must nonetheless be taken not to oversimplify physical symptoms as representative of depression, because not all physical symptoms are psychiatrically related.

The diagnosis and management of depression among Africans could be enhanced if the following guidelines, proposed by Jegede (1979) and German (1987) are taken into consideration:

- (a) a careful history-taking should be done in order to get all the information of the patient's personal life, hereditary and premorbid personality, which could help in the discovery of depression;
- (b) multiple instruments should be utilised for the assessment of depression; in order to make assessment comprehensive rating scales and questionnaires should be designed for Africans;
- (c) psycho physiological methods should be used in the study of depression in carefully selected groups, for example using the EEG to make differential diagnoses;
- (d) governments and leaders should be convinced of the importance of these disorders and their impact on social, security and development stability;
- (e) European and North American models for the management and control of mental disorders need to be modified instead of being blindly applied to Africans.

### **3.3 CULTURAL RELATIVITY IN THE SYMPTOM MANIFESTATION OF DEPRESSION**

The reliability of research methods that emphasised the rarity of depression in Africa have been questioned for not investigating the factors that contributed to the belief that depression was almost absent in Africa. According to German (1972), the opposite was happening in Europe and North America. In these countries, data and theories about psychiatric disorders were expanded in an attempt to fully understand the influence of customary practices, cultural, economic and religious factors on the practice of clinical psychiatry.



Binitie (1975) produced a factor analytical study of depression across cultures (African and European) in hospitals in Nigeria and London. This study showed that depression in Africans was characterised by a depressed mood, somatic symptoms and motor retardation, whereas among European people with depression presented with depressed mood, guilt, suicidal ideas, motor retardation or anxiety. Both groups lost interest in work and the environment, and a depressed mood was central to the diagnosis of depression.

According to Jegede (1979), Europeans and Americans describe the classical symptoms of psychotic depression as severe depression of mood, guilt feelings, hopelessness and nihilistic delusions, whereas these psychological symptoms are according to most writers rare in African communities (Asuni, 1994; Prince, 1968).

Prince (1968) reviewed studies that were published between 1895 and 1957 and found that the majority of those papers pointed to European-African differences in the presentation of depression. Several researchers (Binite, 1971; German, 1969; Jegede, 1979; Olatawura, 1973; Raskin & Cook, 1975; Simon, Vinkorf & Barlow, 1995) came to similar conclusions – that depression does not assume a universal form when present. The symptoms of depression in Africans were found to be different from those commonly found in Western communities. There is a general view that among Africans, a depressed mood is usually not associated with an illness, and that they present with somatic symptoms when they are depressed, in contrast to white patients who often show cognitive disturbances and depressed mood. Common symptoms of somatisation are complaints referable to every system of the body, including headaches, heat in the head, weakness, generalised body pain without precise topography, gastrointestinal tract problems, dizziness and bodily sensations.

According to Jegede (1979), Africans put specific significance to somatic symptoms for depression. His understanding of this statement is that somatic symptoms are a reflection of socio-culturally-determined attitudes as to what constitutes an illness. If people have physical complaints, they are regarded as sick and this is more acceptable than when they are complaining of *psychological symptoms*.

Ndetei and Muhangi (1979) undertook a study with psychiatric patients suffering from anxiety and depressive states in Kenya. The universal complaint between the two groups was headaches. Similar results reported by Prince (1968) were that most patients with symptoms of depression only complained of headaches. There were no patients complaining of feeling sad or anything to suggest depression. The impression created by these findings was that although affective disorders could be common in Africa, patients seem to ignore them as illnesses and regard depression as unimportant in determining hospitalisation. It was therefore uncommon for patients to be admitted with depression. Admission in Africa was mainly considered when patients presented with somatic symptoms or when they presented with a psychosis with violent behaviour (Ndetei & Muhangi, 1979).

In Nigeria, Asuni (1965) found that the commonest symptoms associated with depression were low back pain, disturbances in sleep patterns, appetite and indigestion as well as weight problems. The majority of these patients scored very high on objective scales of depression and was diagnosed with Major Depression. Ideas of worthlessness and self-depreciation were very rare and suicide uncommon. Most of the women complained of feeling weak and ill. Sadness was denied as a primary phenomenon and when they were sad, it was only because they were ill. The physical symptoms improved after treatment with antidepressants and psychotherapy. Others were given electroconvulsive therapy (ECT) and responded well to this treatment.

In another study conducted by Makanjuola and Olaifa (1987) in Nigeria, the most frequent symptom presented by depressed patients was insomnia. Other accompanying symptoms in these patients were bodily sensations, appetite disturbances, headaches and pressure in the head, fatigue and restlessness.

The conclusions derived from these studies support the notion that depression may be common in Africans, in spite of the fact that its clinical presentation differs from countries in the West. In this regard, the findings of many studies on depression in Africa reveal that Africans tend to focus on physical symptoms, rather than on the

emotional content of depression. The impression formed from these findings is that Africans do not widely characterise depression as an illness. Also, when they are depressed, they do not recognise it as such. Another interesting revelation that emerged from reviewing previous studies was about the rarity of guilt feelings, suicidal ideation, ideas of worthlessness and self-reproach. The explanation for this could be related to the level of sophistication where traditionally-oriented people tend to mask depression, and more enlightened and urban people having tendencies to express their depression in a psychological manner (this is discussed in greater detail below). Psychiatric illnesses, including depression, have furthermore historically been associated with stigma in all racial groupings and this also applies to black communities. This is likely to lead to many Africans avoiding consulting with mental health professionals, believing they should rather cope with the symptoms by themselves (Verster & Gagiano, 1995).

#### **3.4 CHANGES IN SYMPTOM MANIFESTATION OF DEPRESSION DUE TO CULTURAL CHANGE**

Cultural change involves various processes, which may occur concurrently, but are not identical in meaning and effect. These processes include the dynamism of cultural development, acculturation, and urbanization.

Cultures are dynamic and they continuously develop and change. The nature of this change varies according to complex ecological, technological, economic, social and political processes. Important historical events, technical and scientific developments, new knowledge, economic progress – these and other events necessitate alternative ways of thinking about existence and lead to new modes of experience.

Acculturation refers to the process whereby cultural patterns (or segments thereof) undergo changes due to systematic and continuous influence by another culture(s) (Coertze, 1968). Through this process, one culture adopts products, thought patterns and ways of life of another culture and this results in greater similarity between them. With regard to the clinical presentation of mental disorders, this could imply that the

way, in which such disorders are interpreted, experienced and expressed, could also change in the direction of *how* it occurs in the dominant culture. In the South African context, Western cultures have exerted a great influence on the indigenous African cultures. Westernisation is the assimilation of aspects of the western life style, values, norms, and other aspects of the western culture, and is thus a specific form of acculturation.

The effects of acculturation are not uniform for all members of society. Members of a society are generally on different levels of acculturation, both horizontally (that is, in the same generation), and vertically (across different age groups). The influence of one culture on another is also never so pervasive that it is taken over completely and that it affects all spheres of life. In most instances, elements of the old culture are retained, and this varies across different spheres of life. What is taken over differs from community to community, from one geographical area to another and from individual to individual. It also varies in accordance with the specific situation in which a person finds himself at a particular time -- in one context, he may present with traditional psychological processes, but in another context he may use mechanisms acquired under the influence of another culture (Coertze, 1968).

With regard to the relationship between cultural change and the experience of health and illness, Swartz (1986: 276-7) suggests "(a) that it may be possible to hold a range of potentially conflicting attitudes to illness simultaneously, and (b) that there may be an interaction between the nature of a misfortune and the explanation given to it. These observations question the notion of a linear movement away from the 'traditional' towards the 'modern'." Bhana (1987) reports similar findings with regard to Indian South Africans who tend to conceptualise the etiology of mental disorders largely in terms of Eastern constructs but find both Eastern and Western orientations equally acceptable with respect to treatment. Knowledge of the traditional African worldview, though essential for understanding Black South Africans, will only reveal a limited perspective on their view of illness. There is ample evidence in the literature (for an overview, see Swartz, 1986) that Black health and illness concepts in contemporary society incorporate both traditional African as well as Western

biomedical views. Accordingly, multifaceted diagnostic approaches and service delivery systems (based on the different views of illness) are required.

Urbanisation relates to an increase in the number of people who live and work in towns and cities, either as a result of migration from rural to urban areas, or as a result of the natural increase in the number of people born in urban areas. As Reader (1963) points out, urbanisation can occur in the absence of westernisation. However, on the African continent, urbanisation is often associated with increased exposure to western influences. At an individual level, it is difficult to operationalise the concept urbanisation and in order to achieve some measure of reliability one can, for example, define urbanisation in terms of an index such as *period of continuous residence in a particular geographical area*, but this obviously does not account for all the dynamics of urbanisation.

Through acculturation, westernisation, and urbanisation, people's interpretation of illness such as mental disorders may change, and this could be associated with changes in symptom presentation. With regard to westernisation, this implies that the way in which African patients present with disorders such as depression could become more similar to that of their western counterparts.

According to Jegede (1979) and Daynes (1984), the level of westernisation affects the way Africans understand and express depressive symptoms. Jegede's (1979) findings in Kenya showed that people who were more educated and urbanised were inclined to express their depressive symptoms with more psychological symptoms, whereas uneducated patients from rural areas showed their depression with predominantly somatic symptoms. This implies that a multi-factorial conceptual framework should be used to understand depression, and provision must be made not only for culture-specific issues, but also for universal processes.

### 3.5 THE ROLE OF CULTURE IN PSYCHOPATHOLOGY

A patient is a carrier of culture, and his experience of himself, his behaviour and his interaction with others are influenced by the beliefs, customs, thought patterns and symbolism of the culture that he belongs to (Schlebusch, Wessels & Rzakowolsky, (1990). In South Africa, psychiatry shows the importance of cultural practices in different cultures. Mental illness in the Black community is believed to be caused by witchcraft, ancestral wrath and failure to honour cultural practices. The majority of Black people often consult with traditional healers in order to deal with this misfortune (Pretorius 1986; Savov, 1997). There are various ways in which culture could influence psychopathology:

In the South African literature, the concept *stress* has been used to explain the role of culture in psychopathology (e.g. Swartz, 1987). Certain psychosocial stressors may be more prevalent in particular cultures, or may occur more frequently in particular combinations, with the result that certain syndromes may occur more frequently in a particular culture than in other cultures (Gottlieb, 1997).

According to German (1987), Africa is afflicted by social evils such as famine, poverty, social breakdown and drug trafficking, which contribute to mental ill health. There is a wide range of issues in Africa, which have an important bearing on mental illness and mental health, such as break-up of family structure, population mobility due to political upheaval, socio-economic shifts, and other deprivations. The losses implicit in such occurrences could play a role in the development of depressive disorders. Other stressors, which repetitively occur in traditional, black society and which are related to depression among black women are related to the marginal position of a woman in the family of her in-laws, and childlessness (Schoeman, 1985).

A theme that has recurrently been described in literature on Africa is the communalistic nature of Black society. The Northern-Sotho say *motho ke motho ka batho* which, when literally translated, means a person is a person in terms of other people. This implies that life outside an interpersonal matrix is impossible. Mbiti

(1969: 108-9), an East African philosopher, refers to the essentially communalistic African view of man and says: "Only in terms of other people does the individual become conscious of his own being, his own duties, his privileges and responsibilities towards himself and other people. Whatever happens to the individual happens to the whole group, and what happens to the whole group happens to the individual. The individual can only say: "I am because we are; and since we are, therefore I am". This is a cardinal point in the understanding of the African view of man." Manganyi (1973: 30) writes about the *communalistic* orientation towards life and the *corporate personality* of blacks. This contrasts with the solipsistic Western view of man, which accepts the individual and not the group as the basic unit of psychic reality.

Due to acculturation, the sense of community has been eroded to some extent. Manganyi (1973: 20) states: "Our spirit of communalism was gradually eroded until we were left with individualism and its stable-mate materialism". Solidarity among other things means that people have to share. This sharing is all embracing, since it involves not only the sharing of material things, but also the sharing of suffering and the possible joys of being-black-in-the-world.

In accordance with this interpersonal view of man, mental illness is also to a great extent, but not exclusively, interpreted in terms of relationships between people. The holistic and communal African view of illness is summarised by Corin and Bibeau (1980: 207) as follows: "Through examinations of diagnostic and therapeutic orientations, we discover that illnesses are generally not seen by Africans as located in a single isolated individual. The significance of a disease in any individual is often grasped by the African more in terms of interpersonal relationships or of a possible threat to the group than in personal terms, and treatment may embrace the social context as well as the person."

Authors such as Schlebusch et al. (1990) and Wittkower and Prince (1974) postulate that with regard to some mental disorders, the basic *structure* of the disorders based on universal psychophysiological reactions, are universally the same. The *content* of the disorders, i.e. their symptoms or their overt manifestations, could, however, be

pathoplastically shaped by culture (for example, cultural beliefs may mould the contents of hallucinations and delusions). With regard to other disorders, however, there may be differences in *structure*, rather than content (cf. Wittkower & Prince, 1974).

The foregoing implies that, despite culture-specific manifestations of psychopathology, universal symptoms and processes can also be distinguished. To account for the simultaneous presence of both universal and culture-specific features of behaviour, Schlebusch et al. (1990) distinguish between *illness behaviour* (a social concept) and *disease* (an underlying biological substrate, which is universal). They argue that illness behaviour reflects differences across cultures. Culture pathoplastically shapes the final presentation of the disorder. These authors also refer to the distinction between disease (the malfunctioning of biological and/or psychological processes) and illness (which refers to the psychological experience and meaning of perceived disease). "Illness then is the disease shaped into behaviour and experience" (Schlebusch, et al., 1990: 224). Such behaviour and experience is influenced by culture and manifests as a *sick role*. The experience of disease, i.e. illness, is influenced by personal, social and cultural reactions to disease and thus subject to cultural variability.

Cultures also provide *models* for the interpretation and experience of illness and healing. These *models* can be interpreted with reference to the construct cosmology (or worldview). The latter is "essentially a (cognitive) attempt to make sense of the world, to impose meaning" (Hammond-Tooke, 1981: xiii). It refers to shared thought patterns and symbolism in terms of which a group of people interpret reality and attach meaning to experience: The way they conceptualise and experience their environment and their own existence. It relates to a set of cognitive schemas that they have of themselves and of their world. White (1984: 2) says: "A psychological perspective, frame of reference, worldview, or cultural ethos is a set of assumptions, beliefs, values, ideas, and behaviour shared by a particular group of people that are transmitted from one generation to the next. This composite set of values, ideas and beliefs provides people with a way of interpreting reality and relating to others and a



general design for living. The cultural ethos or worldview functions like a set of glasses that focuses reality, filters impressions, and gives meaning to events." To the extent that cosmology or worldview permeates all aspects of life, it will also provide schemas for the interpretation of psychological events (such as mental disorders) and scripts for how such events are lived (e.g. symptom presentation).

### **3.6 SUICIDE**

#### **3.6.1 Epidemiological data on suicide**

When Barraclough (1988) studied international variation in the suicide rate of 15-24 year olds across 70 member states of the WHO for the period 1972-1984, he found that epidemiological data pointed towards differences across cultures with regard to the incidence of suicide, but the dynamics of this are not clear. Some of the factors cited in his study as causes of this variation, are cultural differences and religious influences.

In Africa, similar to the views on depression, earlier research reports (Prince, 1967) pointed to the rarity of suicide among blacks, and later research (e.g. German, 1987) also supported the view that suicide occurs less frequently among traditional, stable African communities than in societies which are subjected to rapid social change.

Reeler (1987) reports that in general, there have been increasing rates of suicide and parasuicide in African countries. In South Africa there has been an alarming increase in suicide attempts among teenagers. The reasons for this are not immediately apparent, but there is evidence to suggest that young people increasingly use parasuicide as an inappropriate problem solving way to escape from tension (Bosch et al., 1987).

According to a review by the Medical Research Council (MRC) of South African mortality in 1984 (Medical Research Council, 1987), the age group 15-<25 years

represented the highest incidence (35,14%) of suicide among black females. In black males the highest incidence (30,48%) was in the age group 25- < 35 years.

In a study of 452 children and adolescents (new cases, up to the age of 18 years) who were seen in a psychiatric context during the period 1 January 1988 to 5 September 1988 at Baragwanath hospital, 25 were cases of parasuicide, i.e. 5,5% of the sample (Schoeman, Robertson, Lasisch, Bicha & Westaway, 1989). (The catchment area of Baragwanath is mainly Soweto and Johannesburg and the patients seen were thus predominantly urban Africans).

### **3.6.2 Universal, culture-specific and individual correlates of suicide**

Suicide, and patterns of suicide, as is the case with all mental disorders, is multi-determined and the etiological factors vary from person to person. Although stress could be used to explain the precipitants and causes of suicide, elevated stress in the months prior to the incident is complex and multifactorial, interacting with the individual personality.

In the discussion of the role of culture and cultural change in psychopathology (see paragraph 3.5), reference has already been made to the universal and culture-specific nature of mental disorders. In the following paragraphs, this is elaborated upon, with specific reference to the correlates of suicide. In this regard, three levels of analysis can be distinguished:

#### ***3.6.2.1 Universal correlates***

A question that arises, is whether cultures differ with regard to the relationship between suicide and stressors. Cross-national studies indicate considerable overlap in what is experienced as stressors. This is illustrated with reference to a study, which was apparently multi-cultural, in which Bosch, Schlebusch and Wessels (1987) found the following prominent precipitating factors among 567 adult parasuicides (aged 20-79) in Durban:

- (a) *Interpersonal problems* (72,3%): This included, inter alia, problems in the patients' relationships with a parent, the family, peer group conflict and marital problems.

In South Africa, various factors have contributed to family disintegration. *Acculturation* – or rather *deculturation* (Pilay & Schlebusch, 1987; Wassenaar, 1987) has had a detrimental effect on family integration and has also been linked to parasuicide. This was borne out in studies among the South African Indian population, and is specifically applicable to the middle and upper classes of Indian society (Wassenaar, 1987). In this regard, a gradual shift from extended to nuclear family systems, the simultaneous exposure to conflicting customs, expectations and life style ideals (e.g. with regard to courtship and marriage), together with the associated deviation from accepted cultural norms, have been implicated in suicide.

This finding is not unique to South Africa. Disjuncted family relationships have also been implicated elsewhere in the etiology of suicide (Petronis, Samuels, Moscicki & Anthony, 1990). In San Diego for example, a suicide study involved an investigation into 204 cases of suicide, with ages ranging from 19-80. Rich, Warsrad, Nemiroff, Fowler and Young (1991) found that interpersonal conflicts, separations, and rejections were the predominant stressors associated with suicide during adolescence and early adulthood. Adolescents may struggle to establish their own identity and to become independent from their parents. They are also vulnerable to rejection from their peer group. In early adulthood, isolation becomes problematic if lasting intimate relationships are not forged. Career choices and the loosening of parental support also contribute towards the experience of separation.

A related finding is that of Pan and Lieh-Mak (1989), who studied male and female parasuicides in Hong Kong. They found that interpersonal problems, present in 61% of the cases, were by far the most common precipitants of parasuicide in both groups. In addition, they found that significantly more female subjects admitted to

interpersonal conflict than male subjects. This included relationship problems with their spouses or cohabitants, or with friends of the opposite sex.

(b) *Substance use* (15,3%), mainly alcohol

Again, this finding by Bosch et al. (1987) is not unique to South Africa. The same trend has been found in international studies. Pritchard (1988: 89) says: "...it is well established that alcoholism is the second most common psychiatric disorder associated with suicide." Petronis et al., (1990) also found population subgroups in which suicide attempts occurred with greater than expected frequency to include active cases of alcohol abuse-dependence syndrome.

(c) *Social problems* (12,3%), mainly unemployment and financial difficulties.

Many international studies have implicated unemployment and financial strain in suicide. Pritchard (1990: 73) says, "the association between unemployment and physical and mental ill health is now established beyond reasonable doubt". Platt (1984, quoted by Pritchard, 1988: 85) reached the following conclusion: "We can confidently state that there is an association between unemployment and suicide, but we cannot specify the nature of this association". That unemployment is detrimental to both physical and mental health is a common-sense truism. At the same time it is a major cause of poverty, which is associated with the *health divide*. It is also well established that unemployment generates psychosocial distress associated with lowered self-esteem, depression, family tension and social isolation.

Platt and Kreitman (1990) found that "the highest (parasuicide) rate is consistently found among the long-term unemployed. In particular, men without work for over a year experience between twice and five times the risk of parasuicide than those unemployed for under a month, and 12-18 times the risk compared to their employed counterparts" (p. 59). Pritchard (1990) also states that the long-term unemployed is especially prone to a sense of despair and hopelessness. Unemployment exposes the

potentially vulnerable person to breakdown. There is a danger that this leads to a sense of being dis-enfranchised and increased alienation (Pritchard, 1988).

Platt and Kreitman (1990: 60) found that parasuicide reaches a turning point and starts to decline with growing unemployment. They remark this "could also in part be due to a quite different process, namely the reduction in stigmatisation associated with unemployment as the number of individuals involved becomes progressively larger and unemployment status becomes less deviant."

Limited information is available with regard to the role of socio-economic factors in suicide in South Africa. In Faul's study (1987) of 54 black parasuicidal youths seen at Ga-Rankuwa Hospital near Pretoria, 83% came from families with a monthly income of R500 or less. In another South Africa study, Wassenaar (1987) confirms that there are indications that unemployment is an important precipitant of parasuicide in the lower socio-economic classes.

### ***3.6.2.2 Cultural-specific correlates***

In addition to universal processes, it must be recognised that what constitutes a stressor in one community will not necessarily be a stressor in another. Whether it is experienced as a stressor or not, will depend on the values and life style in the particular community. There might also be a greater prevalence of specific stressors in particular communities.

Various culture-specific issues related to suicidal behaviour have been investigated. One such issue relates to patterns of handling *aggression*. Beatrice Whiting (quoted by Barnouw, 1973) described the Paiute in Oregon as exerting strict control over aggression so as to ensure the solidarity of the family unit. For example, if one were to express aggression overtly, one could be accused of sorcery. Despite this control, aggression sometimes did break loose and was also turned inwards, resulting in suicide.

According to Wassenaar (1987), the majority of the parasuicides among the Indian adolescents he studied were precipitated by the termination of a romantic relationship; a high proportion of these terminations were initiated by parental pressure, as arranged marriages still occur. Pillay and Schlebusch (1987) also ascribe the preponderance of parasuicide among female Indian adolescents to cultural factors: Indian females are traditionally restricted and subjected to subservience to males, which could, in the vulnerable, act as a stressor. Acculturation, in the form of female emancipation, has changed this, but this has, at the same time, lead to role discrepancies and increased psychosocial stress with parasuicidal potential.

### **3.6.2.3 Individual correlates**

The existence of stressors at group level does not imply that all group members will experience such factors as stressful. Whether this will happen, will depend on the individual's perception of the issue, whether he or she regards it as a threat and/or whether he/she perceives him-/herself as having the necessary skills to cope with it (Sheridan & Radmacher, 1992).

### **3.6.3 The relationship between suicide and other psychiatric diagnoses**

Although suicide and parasuicide may occur together with conditions not attributable to a psychiatric disorder, mental disorder is the largest single etiological factor in suicide (Pritchard, 1988). Bosch et al. (1987) found among 567 parasuicides in a psychiatric unit in Durban, that Adjustment Disorder, mainly with depressed mood, was the most common psychiatric diagnosis (50,1%), followed by Affective disorders (42,1%) in which Dysthymic Disorder (22,6%) and single episodes of depression (19,5%) featured prominently.

The research of Bosch et al. (1987) conducted in a psychiatric unit in a general hospital reveals that only 1,5% of the parasuicides were associated with Schizophrenia. In a study conducted in a psychiatric ward, Schlebusch et al. (1986) found that the majority of the patients who committed suicide suffered from

Schizophrenia, followed by Affective disorder and Alcohol dependence. Males were diagnosed either with Schizophrenia or Alcohol dependence and females with Affective disorder.

Pan and Lieh-Mak (1989) studied male and female parasuicides in Hong Kong and found that 23,6% of the subjects had a psychiatric disorder, the most common disorders being Schizophrenia and Depressive Disorder.

In a study of murder-suicide (Rosenbaum, 1990) it was found that the large majority of perpetrators suffered from depression.

Cohen, Test and Brown (1990) investigated schizophrenic suicides and found that in addition to a high frequency of clinical diagnoses of Schizophrenia, the majority of the patients also had at some time received diagnoses of Affective or Schizoaffective disorders. "This observation suggests that patients at highest risk for suicide may present with mixed, ambiguous, or changing patterns of signs and symptoms" (p. 604).

The role of serious psychiatric disorder such as psychoses, depression and substance use in suicidal behaviour alerts us to the early detection of such instances and the problems associated with cross-cultural diagnoses, with special reference to depression.

### **3.7 MISDIAGNOSIS OF DEPRESSION**

#### **3.7.1 Introduction**

According to Asuni (1994), depression is commonly underdiagnosed and underrated in primary care. According to Glaser, Wheeland, Segreti, Goldberg, Eli and Amsterdam (1998), depression is commonly missed in the presence of disorders such as thyroid diseases. A worldwide survey conducted by the Global Alliance of Mental Illness Advocacy Network (GAMIAN) (1988), in South Africa, showed that doctors

other than psychiatrists frequently fail to identify depression in the presence of anxiety. It was found that when anxiety coexists with depression, there is a marked overlap. This causes difficulty to distinguish between the two disorders. As a result, a significant number of depression and anxiety, patients are misdiagnosed. The difficulty to identify depression is compounded by patients who delay to seek help for depression.

Gangat, Naidoo and Simpson (1987) conducted a study in Durban with Indian families of people who committed suicide. The results from this study showed that at the time of their death, these patients had signs and symptoms that were strongly suggestive of depression. Yet at the time of their death, none was being treated for depression. Few had received treatment and none had been referred for specialist attention. These findings suggest that depression is often unidentified, leading to unnecessary delays in diagnosis and management, with the result of increasing psychiatric morbidity.

The results of the studies cited above, present the impression that progress in the proper management of depression in Africa will only be made when the diagnosis of depression is given the primary importance it rightly deserves. In the following paragraphs, various reasons related to misdiagnosis of depression are discussed:

### **3.7.2 Language problems**

Indigenous African languages do not translate directly into English, especially insofar as technological, scientific or medical jargon is concerned. As a result, mental health professionals dealing with depressed Africans may be unable to understand the expressions of patients and this may lead to misdiagnosis of depression.

According to Majodina and Johnson (1983), language is an important limitation when dealing with depressives in the African setting. They found that although English was an official language in Ghana, the majority of the people did not understand or speak English. This implies that administering internationally standardised instruments without checking the level of understanding with Africans could yield wrong results.



Clinicians are advised to exercise extreme caution to identify the literacy level of their subjects.

Rwegellera and Mambwe (1977) conducted a study in Zambia and reported that non-African mental health workers were experiencing language problems in their contact with Africans who could not communicate in English. These workers depended on the help of interpreters in order to engage themselves in conversations with African patients during consultations. The problem was compounded by some of the interpreters who were lacking a good command of the English language.

After considering various terms used in African languages, the author of the present study came to the conclusion that there is no specific word in the African community in South Africa that translates directly into depression as it is conceptualised in Europe and America. People use idiomatic expressions such as *my heart is sore*, *my spirit is low*, or *I have a broken heart*. This situation is compounded by the fact that there are few Black mental health workers, especially psychologists and psychiatrists, who cater for the Black population. As a result white psychologists, who may not be able to understand or speak an African language, provide psychological services.

### **3.7.3 Cultural factors**

Reference has already been made to the role that culture and cultural change play in the occurrence of mental disorders. It was indicated above that the way in which African patients present depression, is likely to lead to under-diagnosis and misdiagnosis. According to Noordehaven, Vundenick and Lincoln (1996), when western systems of management (including diagnosis) are imposed on Africans, the outcome is likely to be more unfavourable, than when allowance is made for conditions and cultures applicable to the African continent. According to Noordehaven et al. (1996) limitations in knowledge of African culture is likely to lead to a course of action where Africans are being interpreted from a western perspective, without taking these patients' realities into consideration.

#### **3.7.4 Attitudes towards mental illness and mental health care**

Cultures shape attitudes towards the mentally disordered (Schlebusch et al., 1990) and define what a community regards as mentally disturbed behaviour. De Vos (1974) accounts that there are different expectations with regard to mentally deranged behaviour in different communities. For example: "In some cultures, the psychotic is expected to be dangerous and excitable. One may suppose that with such an expectation, there will be a higher incidence of aggressive behaviour in one culture, as compared with another, induced by defensive aggressiveness in dealing with an emotionally or mentally aberrant individual" (De Vos, 1974: 552).

Attitudes towards mental illness influence the extent to which people make use of mental health services and this in turn affects the extent to which depression is identified.

In 1992 Westaway and Wolmarans carried out a study of attitudes towards psychology, psychiatry and mental illness, using a large number of students in tertiary education, and a smaller number of psychologists, general practitioners, members of the public, patients and staff in a psychiatric hospital in Cape Town. The findings of this study showed that a marked difference of attitudes existed between the different samples, and that the extent of a person's knowledge about mental illness, as well as the degree of contact with mental health professionals and their services, were important influences on the attitudes of respondents.

The results showed that third year psychology students had negative attitudes towards psychology, but that the attitudes of final year students were more positive than those held by students in their first year of studying psychology. With both the student and the patient sample, only a small minority indicated that they would first seek help from general medical practitioners. The psychiatrist was considered to be the most appropriate professional to deal with mental illness.

Members of the public were more optimistic with regard to the efficacy of psychological and psychiatric treatment as compared to general medical practitioners. Although mental health care professionals were viewed in a favourable light, most respondents indicated that they would nevertheless prefer to approach a friend in times of psychological distress. Many general practitioners favoured psychiatrists over psychologists when dealing with emotional or mental problems; psychologists favoured a psychologist and the general public a friend. The results also showed a marked lack of knowledge among members of the public and general practitioners with regard to the complexities of mental illness.

According to Makanjuola and Olaifa (1987), Nigerians would normally rather not consult a psychiatrist due to rigid cultural beliefs, misconceptions, stigma and taboos attached to mental illness. Masking of depression is therefore both socially and culturally convenient. Therefore, depression in this case can be masked by somatic complaints and by socially and culturally defined symptoms.

In a study in Zambia, Rwegellera and Mambwe (1977) found that mental hospitals were under-utilised for admissions by Africans. Government hospitals run on Western models were new and alien to the majority of the indigenous people of Africa. Rwegellera also found that it was unlikely for depressed Africans to consult a doctor for their symptoms, and in addition, their relatives might not regard them as ill at all. Traditional healers would probably more likely be consulted than Western clinicians. It was furthermore found that patients were weary of being diagnosed with depression, as this was seen as a stigma.

### **3.7.5 Assessment instruments**

The use of reliable and valid assessment instruments contributes to the accurate diagnosis of depression. In a study conducted by Strauss, Gagiano, Van Rensburg and De Wet (1995), in a general practice in one of the rural areas in the Orange Free State, it was found that 16% of the patients had Major Depression. There was only a 42% chance of correctly identifying a patient with depression without the use of a

screening device, whilst there was a 97% chance using a screening device that correctly identified a patient with depression. Strauss et al. (1995) concluded that there is a high prevalence of Major Depression in the general population, but that it goes undetected by general practitioners, especially in rural areas. The advantages of using screening questionnaires are clearly demonstrated in this study.

According to Carney et al. 1998, depressive disorder may go unnoticed or receive suboptimal management if clinicians do not use several depression instruments to identify it. These authors recommend that studies be done to define the accuracy, acceptability and efficiency of specific instruments in different cultures to ascertain the presence of a depressive mood.

Internationally, there are a number of renowned instruments available to assess depression. These include the Self-Rating Depression Scale (SDS) the Hamilton Rating Scale for Depression (HSRSD) the Minnesota Multiphasic Personality Inventory (MMPI) the Beck Depression Inventory and the Depression Index (DEPI).

### **3.8 AGE AND DEPRESSION**

A literature search was conducted to identify South African literature that deals with relationship between age and depression in Black communities. In contrast to the amount of international literature, only three South African studies could be identified. These studies are reviewed in the following paragraph:

According to Gijana and Louw (1981), a survey of clinical records kept at the outpatient psychiatric clinic of Umtata hospital showed a 70% prevalence of depression in the age group of 21-39 years. Another study by Gillis et al. (1991) was done in the Cape at Khayelitsha with elderly people staying in shacks. Symptoms of psychological distress and depression in the elderly black women were strikingly marked. In this group, many

were uneducated and had poor accommodation. The findings showed that 66% had symptoms of depression warranting further investigation and 34% would have been treated for a depression. Socio-economic and cultural factors, poverty and differential magnitude of life events were associated with depression among this group of elderly people. A study among Black patients done by Strauss et al. (1995) in the Orange Free State, found that Major Depression affects mostly patients younger than 45 years, while more complicated episodes are seen among patients aged 65 years and older.

### **3.9 GENDER AND DEPRESSION**

In a study of gender and depression in Cape Town, Mitchell and Abbott (1987) found that females more often presented with depression than males. They found that depression was approximately twice as common in females than in males. Stebel and Msomi (1999) also found that Mood disorders occur more frequently among women than among men, with white women in the majority. According to APA (2000) studies in the USA and Europe showed that depressive episodes occur twice as frequent in women as in men, and that women are thus at significantly higher risk than men to develop especially Major Depression.

Stereotypes among general practitioners may serve as a bias against the diagnosis of depression. For example, depression may not be suspected in young unmarried men as often as in middle-aged married women (Westaway & Wolmarans, 1992).

### **3.10 CONCLUSION**

The following conclusions are drawn from the literature review presented in this chapter:

Methodological limitations (such as biased sampling) and lack of comprehensive assessment methods led to early researchers underdiagnosing depression in Africa,

whereas more recent researchers emphasise that depression is as common as in the West.

Africans more often present with physical symptoms than their white counterparts when depressed. However, the phenomenon of masked depression has also been observed among white depressives. Urbanised and educated Blacks are more likely to present depression in a manner similar to their white counterparts, and probably also understand depression better than rural indigenous people.

Models developed in Europe and America for the management (including diagnosis) of mental disorders are often used with Africans, without thoroughly scrutinising their suitability in an African setting.

There is a scarcity of mental health workers with an African cultural background in developing Africa.

To conclude, the differences between Africa and the developed world with regard to the diagnosis of depression, seem to be determined in part by the understanding of the disease and partly also by cultural differences and widespread illiteracy that exist among Africans. It is currently unanimously agreed that depressive illness is a common feature in Africa. The conflict is brought upon by differences in the nature of symptoms, where the clinical aspect in Africans, to our knowledge, is different from that presented by non-Africans (Gallagher, Moore & Chernoff, 1995).

## CHAPTER 4

### MEASUREMENT INSTRUMENTS USED IN THE STUDY

#### 4.1 INTRODUCTION

Psychological tests are valuable tools that can score and summarise responses according to defined guidelines. In clinical practice, a well-chosen test battery allows one to systematically examine the components of a syndrome. From this a diagnosis can be provided that will be valuable when the treatment programme for a patient is decided upon. Such measures are useful to establish the validity of the diagnosis and to delineate its symptomatic range.

According to McDowell and Newell (1996), depression scales rank among the best-established health measurements. Most of these scales have received rigorous testing and have been used in numerous studies conducted in many countries. The instruments assessing depression reflect the divergence of conceptual approaches to depression and also the fact that depression is a syndrome rather than a single entity. Since no *one* symptom is diagnostic of depression, a measurement for the assessment of depression has to cover several dimensions.

For the purpose of the current study, two self-rating scales (the BDI-II and MMPI-2) were used since they are easy to administer and because they assess various facets of depression. The Rorschach Inkblot test was also included because it does not require a high level of reading proficiency in English. With regard to the MMPI-2, the focus was placed on the Depressed Suicidal Ideation Critical Item Scale (Butcher & Williams, 1996), while other indexes or scales were also examined. With regard to the Rorschach, the Depression Index (DEPI) and the Suicide Constellation (S-CON), scored according to Exner's (1993) system, were examined.

In the following paragraphs, the BDI-II will be described first, thereafter the MMPI-2 and lastly the Rorschach (with reference to Exner's (1993) Comprehensive System).

Underlying each of these instruments are theoretical principles about the nature of the psyche and specifically depression, and how the latter can be assessed. The chapter is accordingly concluded with a discussion of these theoretical principles.

## **4.2 THE BECK DEPRESSION INVENTORY, SECOND EDITION (BDI-II)**

### **4.2.1 History of the test**

According to various authors (Farmer, Chubb, Jones, Hiller, Smith & Borysiewicz, 1996; Robinson & Kelly, 1996; Steer, Ball & Ranier, 1996), the BDI is a highly researched instrument with more than a thousand different scientific studies having been carried out with it. Piotrowski (1996) reports that the BDI ranks among the top twelve psychological instruments that are used most frequently by mental health professionals. According to McDowell and Newell (1996), the BDI is one of the best depression screening tools available and is often included in psychological test batteries. The instrument has been translated into many languages, including French, Danish, Spanish, German, Chinese, Turkish and Polish. Compared to another established scale such as the Self-Rating Depression Scale (SDS), the BDI has a broader coverage of the somatic aspects of depression.

The first version of the BDI was released in 1961 (Beck, Ward, Mendelson, Mock & Erbaugh, 1961). The 1961 BDI was derived from clinical observations about the attitudes and symptoms frequently displayed by depressed psychiatric patients and infrequently by non-depressed psychiatric patients. The clinical observations were based on verbal descriptions by patients and chosen to assess the intensity of depression, but not to reflect a particular theory of depression. It consisted of 21 depressive symptoms and attitudes, which were rated from zero to three in terms of intensity.

In 1971 a revised edition of the BDI was released and later copyrighted in 1978, referred to as the Beck Depression Inventory 1A. According to Beck and Steer (1995), many researchers were initially unaware of the upgraded version and



references in most of the research studies that had incorporated the BDI, continued to cite the original 1961 version. In 1993 Beck and Steer published a technical manual for the scale. In this manual, slight revisions of the recommended score ranges were done to interpret the level of severity of depressed symptoms.

As a result of several refinements made to the definition of depression, especially with the advent of the American Psychiatric Association's Diagnostic and Statistical Manual on Mental Disorders (Third Edition, Revised and Fourth Edition) (DSM-III-R and DSM-IV), the BDI was revised. A new BDI-II, which was more compatible with the DSM-IV and whose symptoms corresponded to the diagnostic criteria listed in the DSM-IV for depressive disorders, replaced the original one. This was released in 1996 (Beck, Steer & Brown, 1996).

Whereas the initial BDI only related to the current feelings of the patient, and the BDI-1A to the feelings of the preceding week, the period for the BDI-II ratings was increased from one week to the preceding two weeks, including the present day – *today*, which was in accordance with the DSM-IV criteria for depressive disorders (Beck, Steer & Brown, 1996; Steer & Clark, 1997). Apart from this, other instructions of the BDI remained unchanged.

The newly introduced items for the BDI-II are listed below:

- Agitation
- Concentration difficulties
- Worthlessness
- Loss of energy.

The following symptoms that appeared in the BDI-1A were dropped:

- Weight loss
- Body image change
- Work difficulty
- Somatic preoccupation.

Eighteen items addressing similar symptom domains in the BDI-IA were reworded in the BDI-II.

The wording for only three items of the BDI-IA remained unchanged:

Punishment feelings

Suicidal thoughts or wishes

Loss of interest in sex.

#### **4.2.2 Description of the BDI-II**

Like its predecessors, the BDI-II consists of 21 items to assess the intensity of depression in clinical patients and normal people, including adolescents aged 13 years and older. The minimum required reading ability is a Grade six level, according to American standards. According to Beck et al. (1996), the BDI-II reflects not only cognitive and affective symptoms but also somatic and vegetative symptoms of depression. For example, some suicidal patients may not express suicide ideation but may have actually stopped eating and sleeping.

On average, the BDI requires five to ten minutes to complete, but it may take longer than average for patients with severe depression or with Obsessive Disorders. Like in the previous editions of the BDI, the items in the BDI-II consist of a list of four statements arranged in increasing severity of particular symptoms of depression. Numerical values of zero, one, two, and three are allocated to each statement in order to indicate the degree of severity. The severity ranges from normal, mild, moderate, to severe. The total score is obtained by summing the ratings for each of the 21 items. The scores can range between zero and 63. The scoring can be done manually or it can be computer scored. (Beck et al., 1996)

The BDI is not intended to diagnose depression, although it is sensitive to it. High scores on the BDI cannot be taken as a diagnosis of depression, but rather as an indication of dysphoria. A patient could be termed as depressed only after a fuller clinical interview has been conducted. The BDI-II total score thus provides only an

estimate of the overall severity of depression, and not the diagnosis of depression. The following guidelines for interpreting cut-off scores are suggested for total scores:

0-13	minimal
14-19	mild
20-28	moderate
29-63	severe

(Beck, Steer & Garbin, 1988; Beck et al., 1996; Gillis et al., 1991).

The symptom and attitude categories of the BDI-II are as follows (Beck et al., 1996):

- Sadness
- Pessimism
- Past failure
- Loss of pleasure
- Guilty feelings
- Punishment feelings
- Self-dislike
- Self-criticism
- Suicidal thoughts
- Crying
- Agitation
- Loss of interest
- Indecisiveness
- Worthlessness
- Loss of energy
- Change in sleeping
- Irritability
- Change in appetite
- Concentration difficulties
- Tiredness or fatigue
- Loss of interest in sex

### **4.2.3 Psychometric properties of the BDI**

This instrument has been found to have clinical utility and to display reliable psychometric characteristics across a broad spectrum of both clinical and non-clinical populations (Beck, Steer & Garbin, 1988; Ben-Porath et al, 1995; and Osman, Downs, Barriors, Kopper, Gutierrez, & Chiros, 1997). The internal consistencies of the 1961 and 1978 versions of the BDI on two different samples of psychiatric patients were studied by Ben-Porath et al. (1995). The results showed that the two versions of the BDI possessed high levels of internal consistency, despite differences in the background characteristics of the sample and time frame that the patients were asked to describe. Concerning the BDI-II, Beck et al. (1996) state that the instrument possesses adequate reliability and validity for clinical purposes. Their study furthermore reveals that the BDI-II has non-significant correlation with gender, ethnicity and age.

McDowell and Newell (1996) reported that, when the BDI-II was compared with Zung's Self Rating Scale, the mean correlation was 0.76 in eight studies of psychiatric populations, and with the MMPI (Depression Scale) the mean correlations was 0.76 in seven studies of psychiatric patients.

### **4.2.4 Theoretical foundations of the BDI**

As stated earlier, the original development of the BDI was based on clinical observations of the attitudes and symptoms frequently described by depressed psychiatric, and not based on a particular theory (Beck et al., 1961; Mc Dowell & Newell, 1996). Although the origin of the BDI was based on empirical observations, Clark, Beck & Clifton (1999) developed a cognitive theory of depression, in which they described schemas regarding the self, emotional states, physical functioning, behaviour and motivation, which correspond to the dimensions of depression assessed by the BDI. There is thus a relationship between the BDI and the cognitive interpretation of the nature of depression.

When the BDI was developed, Beck took attitudes and behaviours specific to clinically depressed cases, and which were consistent with psychiatric literature on depression, and grouped them into 21 items. This approach continued throughout subsequent revisions of the BDI until it started synchronizing with the APA's DSM-IV. The principles underlying the DSM thus also contribute to the theoretical underpinnings of the BDI.

To the extent that the BDI assesses depression on the basis of a description of symptoms, it relates to the view that the presence of symptoms reflects an underlying illness. This places the instrument within the context of the biomedical model in clinical psychology. This model is based on a particular view of man, using an atomistic and reductionistic approach, as opposed to a holistic, descriptive understanding of the person (Clark et al., 1999).

The cognitive and the biomedical approach to depression are both discussed in greater detail in the last section of this chapter.

#### **4.2.5 African studies utilising the BDI**

The BDI has been employed in studies conducted among African students in Nigeria (Lester & Akande, 1995) and African TB patients in South Africa (Westaway & Wolmarans, 1992). The study performed by Westaway and Wolmarans indicated that the BDI is a reliable instrument, which can be easily administered to people with low literacy levels.

It would appear that only a few studies in Africa have been done in which the BDI was used. More studies are affirmatively needed to determine its usefulness in the African context.

### **4.3 THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY (MMPI)**

#### **4.3.1 Introduction**

Several researchers (Butcher & Williams, 1996; Hathaway & Mc Kinley, 1989; Pope, Butcher & Seelen, 1996) report that the MMPI is one of the most extensively used and widely studied measures of personality in psychology. It is widely used in clinical, forensic and occupational contexts. The MMPI is an objective instrument that can facilitate psychological treatment if incorporated early in the management of patients.

#### **4.3.2 Description of the MMPI-2**

Hathaway and McKinley first introduced the MMPI in 1943 to aid in diagnostic screening. A Revised Version was released in 1989 and this was called the MMPI-2 (Butcher & Williams, 1996).

According to Butcher and Williams (1996), the MMPI is suitable for people 18 years and older, with sixth grade reading levels. It takes approximately 60 to 90 minutes to complete the test, with individuals self-administering it by simply responding T (true) or F (false) to each of the 567 items, based on whether the statement applies to them or not. Manual scoring as well as computerised scoring can be done. To achieve accuracy and reliable results in the present study, the MMPI protocols were scored and interpreted by using the MICROTEST Q™ Assessment System software, distributed by NCS Pearson, Inc. in Lawrence, Kansas.

The MMPI-2 consists of various indexes and scales, including Validity Scales, Content Scales and Critical Item Scales. The focus of the study falls on the Critical Item Scales, since these scales can be used in clinical settings for the rapid diagnostic appraisal of patients, and to provide the clinician with clues as to possible problems the patient is experiencing. The following Critical Item Scales are of relevance to the present study: Depressed Suicidal Ideation, Acute Anxiety State, Somatic Symptoms and Family Conflict. The focus on Depressed Suicidal Ideation is evident from the

objectives of the study. Acute Anxiety State was included because of the commonly found relationship between depression and anxiety. Somatic Symptoms was included because of the reported frequency with which Black depressed patients present with somatisation (see Chapter three). Family conflict was included because of the important role that the family plays in communalistic societies (see Chapter three).

The Content Scales of the MMPI provide information about a person's personality, including his or her ideas, attitudes, beliefs, personality style and past or present problems (Butcher & Williams, 1996). By relating the Critical Item Scales to the Content Scales, information could be gleaned about how the Critical Item Scales are related to personality characteristics. The latter scales were thus compared to the following Content Scales: Depression, Anxiety, Health Concerns, and Family Problems.

Since the aim of the present study is to determine the value of the MMPI-2 for the diagnosis of depression, scores on the Validity Scales of the test were also examined.

#### **4.3.3 Scales used for determining the acceptability of a protocol**

A number of scales assess factors that could affect the validity of protocols. These scales are discussed next. This discussion is based on Butcher and Williams (1992); Hathaway and McKinley (1989) and Pope et al.,(1996).

##### **Cannot Say scale (Cs)**

The MMPI contains a *Cannot Say Score* (Cs), which is a measure of test validity and which shows the subject's co-cooperativeness with the psychological evaluation. The Cs score is simply the total number of the items the test taker did not answer, that is, the number of omitted items. If the individual has omitted more than 30 items within the first 370 items, the protocol is considered invalid because validity can be scored only from Items 1 to 370. Such invalid protocols should not be interpreted.

The following are possible reasons for item omissions:

- Defensiveness
- Indecisiveness
- Fatigue, low mood
- Carelessness
- Low reading skill

### **Lie scale (L)**

The L scale is a measure of co-operativeness and willingness to endorse negative self-views. This scale is comprised of 15 items which centre around assertion of great virtue. It contains items such as *At times I feel like swearing* (False) and *I do not always tell the truth* (False). The scale is based on the idea that individuals who attempt to claim excellent psychological adjustment will endorse items that indicate an extremely high moral character, more so than most people would claim.

T-scores higher than 60 indicate that subjects have tendencies to distort their responses by claiming that they are excessively virtuous and want to present themselves in an overly favourable picture. If the L score is greater than 65, the individual is claiming an unrealistically favourable view of his or her moral character, psychological adjustment and virtue that is not found among people in general.

The following descriptions apply to people with elevations on the L scale:

- Unwilling to admit even minor flaws and denying to have problems.
- Unrealistic claiming of virtue.
- Claiming excessively high moral standards.
- Outright effort to fake about motives or adjustment.
- Personality adjustment problems.

### **Consistency scales (VRIN and TRIN)**



The Variable Response Inconsistency (VRIN) and True Response Inconsistency (TRIN) scales are two new scales in the MMPI-2 that determine the validity of the profile. These scales are based on an analysis of the consistency or inconsistency of the individual's responses to the items.

### ***True Response Inconsistency (TRIN)***

This scale is used to assess the tendency of some individuals to respond inconsistently to items that should, in order to be consistent, be endorsed in a particular way. TRIN consist of 20 pairs of items in which a combination of two True or False responses is semantically inconsistent. For example, both "*Most of the time I feel blue* and *I am happy most of the time*" cannot be answered in the same direction if the subject is responding consistently to the content. T-scores for TRIN greater than 80 indicate inconsistent responding.

TRIN can aid in the interpretation of scores on the L and K scales. An individual who therefore inconsistently responds *false* to the items will have elevated scores on scales L and K that do not reflect intentional defensiveness. On the contrary, an individual whose TRIN score indicates an inconsistent *true* responding will have low scores on L and K that do not reflect a particular honest response pattern.

### ***Variable Response Inconsistency (VRIN)***

The VRIN scale is made up of 49 pairs of items with True/False, False/True, True/True, and False/False patterns that represent inconsistent responses. Answering True to *I do not tire quickly* and False to *I feel tired a good deal of the time*, or vice versa, are for example inconsistent responses. The sum of the number of the inconsistent responses indicates whether the protocol is valid or not. If an individual has endorsed unrelated symptoms that do not reflect a clear and consistent pattern, the profile should be regarded as invalid and it should not be interpreted. If the T-score for VRIN is 92 or more, the protocol is invalid.

The VRIN scale may be used to help interpret a high score on the F scale. For example, if F is high and VRIN is low to moderate, this will rule out the possibility that the F score shows random responding.

### **Infrequency scales: F and F(B)**

#### *The F scale*

The F scale of the MMPI contains 60 items that represent a wide range of symptoms and aberrant attitudes. This scale is used to detect the tendency to claim excessive psychological symptoms or to exaggerate one's adjustment problems. The idea underlying the F scale is that individuals, who attempt to claim psychological adjustment problems that they do not have, will actually go to extremes and endorse symptoms from broad and inconsistent problem areas.

A T-score of 90 or above casts doubt on the usefulness of a protocol. High F scores generally reflect:

- An invalid profile
- Possible symptom exaggeration
- Malingering
- Confusion
- Reading problems
- Severe psychopathology

#### *F (B) scale*

The 40-item F(B) or F(Back) scale found in the latter part of the items, was developed for the revised MMPI-2 to detect possible deviant or random responding. The F(B) scale assesses exaggerated responding by examining infrequent responses to items in the latter part of the MMPI-2 booklet. Some subjects may alter their approach to the items and begin answering in a random or unselective manner. Since the items on the

F scale occur earlier in the test, before item number 370, the F scale may not detect deviant response patterns occurring later in the booklet.

The following should be taken into consideration when interpreting the F(B) scale:

- (a) If both the F(B) and the F scales are elevated above  $T = 110$ , no additional interpretation of F(B) is indicated, for the reason that the Clinical and Content Scales may be invalid by the F scale criteria.
- (b) If the T-score of the F scale is valid (below 89) and F(B) is below  $T = 110$ , then a generally valid approach is indicated throughout the booklet.

Interpretative hypotheses for elevated F(B) scores are:

- Possible symptom exaggeration
- Faking psychological problems
- Confusion, reading problems
- Random responding
- Severe psychopathology

### **The K Scale**

The K scale (often referred to as a suppressor scale because of its association with lowering psychopathology on the clinical scales) was developed as a measure of test defensiveness. It is used as a correction for the tendency to deny problems. As a corrective factor, K modifies five MMPI scales: Hypochondriasis (Hs), Psychopathic deviate (Pd), Psychasthenia (Pt), Schizophrenia (Sc), and Hypomania (Ma).

The K scale contains items that are much less *obvious* in content than the L scale. These items are critical in nature, for instance, *Scolding hurts me terribly* (False), *I frequently find myself worrying about something* (False), and *At times I feel like swearing* (False). Most of the items on the scale are endorsed False, reflecting the scale's function as a measure of problem denial. The K scale has been shown to assess an individual's willingness to disclose personal information and to discuss his or her problems.

High scores (T above 65) reflect an unco-operative attitude and reluctance to disclose personal information, thus casting doubt on the validity of the protocol. Low scores (below a T of 45) suggest openness and frankness.

#### **4.3.4 Content Scales**

##### ***4.3.4.1 Origin***

According to Butcher and Williams (1992), the most comprehensive and psychometrically sound approach to assessing item content dimensions of the MMPI was developed by Wiggins in 1966. With the revision of the MMPI, Wiggins' Content Scales were deleted because they contained objectionable items. New homogenous items were added to provide additional content areas describing behavioural features, which the client acknowledges (Butcher, Graham & Williams, and Ben- Porath, 1990).

The assumption with the MMPI-2 Content Scales is that endorsement of the items comprising a particular scale indicates admission of the symptoms and attitudes contained in the items. These Content Scales are thus interpreted as summaries of the clients' admission to particular problem areas. This allows the clinician to use the descriptive characteristics reflected in the scales' items to describe the behavioural features that the client acknowledges. For example, a client with high scores on HEA (Butcher & Williams, 1996) could be described as experiencing excessive somatic complaints across several body systems. Such a person is then likely to show a great deal of concern for his or her ailments, and to seek attention for these concerns.

In summary it can be deduced that the Content Scales can often help clinicians to understand the implications of elevated scales. It can allow them to either confirm or reject hypotheses regarding certain behavioural features found in a particular scale. For example, if the person has a high Psychopathic Deviation (Pd) score but a low Antisocial Practices (ASP) score and a high elevation for Family Problems (FAM),

the elevation on the Pd scale is more likely due to family dysfunction rather than to antisocial features.

#### ***4.3.4.2 Areas covered by the Content Scales***

The Content Scales are grouped into four: internal symptomatic behaviours, external aggressive tendencies, negative self-views and general problem areas (social, family, work and treatment). These main areas are further divided into the following sub-categories:

##### **Internal symptomatic behaviours**

ANX: Anxiety

FRS: Fears

OBS: Obsession

DEP: Depression

HEA: Health Concerns

BIZ: Bizarre Mentation

##### **External aggressive tendencies**

ANG: Anger

CYN: Cynicism

ASP: Antisocial Practices

TPA: Type A Behaviour

##### **Negative self-views**

LSE: Low self-esteem

##### **General problem areas**

SOD: Social discomfort

FAM: Family problems

WRK: Work interference

TRT: Negative treatment indicators

For the purpose of this study, the following content scales were selected for further investigation due to their relevance to the objectives of the study:

ANX: Anxiety

DEP: Depression

HEA: Health concerns

FAM: Family problems

#### ***4.3.4.3 Description of the Content Scales relevant to the present study***

The Anxiety, Depression, Health Concerns and Family Problems Content Scales are next described according to Butcher, Graham, Williams (1996) ; Ben-Porath (1990):

##### **Anxiety (ANX)**

High elevations on ANX are T-scores greater than 65. High scores indicate the endorsement of many of the anxiety symptoms included in the scale. Patients with high scores on ANX report general symptoms of anxiety including tension, somatic problems (e.g. heart pounding, shortness of breath), sleep difficulties, worries and poor concentration. They fear losing their minds, find life a strain, and experience difficulties in making decisions. They appear to be readily aware of these symptoms and problems but are not willing to admit to them.

##### **Depression (DEP)**

High elevations of DEP scores are T-scores greater than 65 and this characterises individuals with significant depressive thoughts. Such persons report that they are feeling blue, uncertain about their future, and uninterested in their lives. They are likely to brood, be unhappy, cry easily, and feel hopeless and empty. They may report

thoughts of suicide or wishes that they were dead. They may believe that they are condemned or that they have committed unpardonable sins. Other people may not be viewed as a source of support.

### **Health Concerns (HEA)**

Individuals with high scores on HEA report many physical symptoms across several body systems. Included in these are gastrointestinal symptoms (e.g. constipation, nausea and vomiting, stomach trouble), neurological problems (e.g. convulsion, dizzy and fainting spells, paralysis), sensory problems (e.g., poor hearing or eyesight), cardiovascular symptoms (e.g. heart or chest pains), skin problems, pain (e.g. headaches, neck pains), and respiratory troubles (e.g. coughs, hay fever). These individuals worry about their health and feel more ill than the average person.

### **Family Problems (FAM)**

High scorers report considerable family discord on FAM. Their families are described as lacking in love, being quarrelsome and unpleasant. They even may report hating members of their families. Their childhood may be portrayed as abusive and their marriages are regarded as unhappy and lacking in affection.

## **4.3.5 Critical Item Scales**

### ***4.3.5.1 Origin***

Koss, Butcher and Hoffman (1976) refer to Grayson's publication of 38 items in 1951 and Caldwell's more comprehensive list of 69 items. These items were termed *critical items*. Both of these lists were drawn up intuitively to reflect the most serious deviant behaviour found in a clinical setting.

Since these items had not been validated to determine if a response to them is related to the actual behaviour of the patient, there was a serious concern among researchers

about their diagnostic usefulness as accurate indicators of general malfunction. This criticism was based on the fact that the critical items were extremely deviant in nature and that it would probably only alert the clinician of serious pathology of psychotic proportion ( Koss, Butcher & Hoffman, 1976; Lachar & Wrobel, 1979).

Using these critical items singly was regarded as too risky as compared to using scales of multiple items. This is due to the fact that it may be possible for a patient to misread or mismatch a single item, which would invalidate the item as a correct sample of behaviour. In contrast, when interpretation is based on several items, the influence of such errors is reduced.

Following an earlier attempt by Grayson and Caldwell to group the individual items, Lachar and Wrobel (1979) carried out a further study to develop clinically useful categories of critical items. These categories of items summarised the problems that motivate patients to seek treatment and also indicated the diagnostic concerns of clinicians. The categories are presented below:

- Anxiety and tension
- Depression and worry
- Sleep disturbances
- Deviant thinking and experience
- Deviant beliefs
- Antisocial attitudes
- Problematic anger
- Somatic symptoms
- Substance abuse
- Family conflict
- Sexual concern and deviation

In addition to the above Critical Item Scales by Lachar and Wrobel, the Koss-Butcher Critical Item Scales should also be mentioned (Butcher & Williams, 1996). The following Koss-Butcher Critical Item Scales are relevant to this study: Acute Anxiety



State and Depressed Suicidal Ideation. In addition, the following Lachar and Wrobel Critical Item Scales were examined: Somatic Symptoms and Family Conflicts.

#### ***4.3.5.2 Description of Critical Item Scales relevant to the present study***

The Critical Item Scales were empirically derived on the original MMPI and survived into the MMPI-2. These items separate an empirically defined crisis group from other patients and are described next:

#### **Acute Anxiety State (Koss-Butcher Critical Items)**

This set of critical items relates to the presence of worry and dread, including complaints of fear, tension and anxiety. The number next to the item refers to its original number in the test booklet.

- 2. *I have a good appetite.* (F)
- 3. *I wake up fresh and rested most mornings.* (F)
- 5. *I am easily awakened by noise.* (T)
- 10. *I am about as able to work as I ever was.* (F)
- 15. *I work under a great deal of tension.* (T)
- 28. *An upset stomach bothers me several times a week.* (T)
- 39. *My sleep is fitful and disturbed.* (T)
- 59. *I am troubled by discomfort in the pit of my stomach every few days or oftener.* (T)
- 140. *Most nights I go to sleep without thoughts or ideas bothering me.* (F)
- 172. *I frequently notice my heart shakes when I try to do something.* (T)
- 208. *I hardly ever notice my heart pounding and I am seldom short of breath.* (F)
- 218. *I have periods of such great restlessness so that I cannot sit long in a chair.*  
(T)
- 223. *I believe I am no more nervous than most others are.* (F)
- 301. *I feel anxious about something or someone almost all the time.* (T)
- 444. *I am a highly-strung person.* (T)

463. *Several times a week I feel as if something dreadful is about to happen.* (T)  
469. *I sometimes feel that I am about to fall to pieces.* (T)

### **Depressed Suicidal Ideation (Koss-Butcher Critical Items)**

The following set of items relates to any form of depression, including depressive episodes and reactive depression, as well as the desire to attempt to commit suicide. The number next to the item refers to its original number in the test booklet.

9. *My daily life is full of things that keep me interested.* (F)  
38. *I have had periods of days, weeks, or months when I couldn't take care of things because I couldn't "get going".* (T)  
65. *Most of the time I feel blue.* (T)  
71. *These days I find it hard not to give up hope of amounting to something.* (T)  
75. *I usually feel that life is worthwhile.* (F)  
92. *I don't seem to care what happens to me.* (T)  
95. *I am happy most of the time.* (F)  
130. *I certainly feel useless at times.* (T)  
146. *I cry easily.* (T)  
215. *I brood a great deal.* (T)  
233. *I have difficulty in starting to do things.* (T)  
273. *Life is a strain for me much of the time.* (T)  
303. *Most of the time I wish I were dead.* (T)  
306. *No one cares much about what happens to you.* (T)  
388. *I very seldom have spells of the blues.* (F)  
411. *At times I think I am not good as other people.* (T)  
454. *The future seems hopeless to me.* (T)  
485. *I often feel that I'm not as good as other people.* (T)  
506. *I have recently considered killing myself.* (T)  
518. *I have made lots of bad mistakes in my life.* (T)  
520. *Lately I have thought a lot about killing myself.* (T)  
524. *No one knows it but I have tried to kill myself.* (T)

### Somatic Symptoms (Lachar-Wrobel Critical Items)

These items relate to the excessive concern with physical complaints that are judged by doctors to be psychological in nature or exacerbated by psychological factors. The number next to the item refers to its original number in the test booklet.

- 18. *I am troubled by attacks of nausea and vomiting.* (T)
- 28. *An upset stomach bothers me several times a week.* (T)
- 33. *I seldom worry about my health.* (F)
- 40. *Much of the time my head seems to hurt all over.* (T)
- 44. *Once a week or oftener I feel suddenly hot all over, for no real reason.* (T)
- 47. *Pains almost never bother me over the heart or in my chest.* (F)
- 53. *Parts of my body often have feelings like burning, tingling, crawling, or like "going to sleep."* (T)
- 57. *I hardly ever feel pain in the back of my neck.* (F)
- 59. *I am troubled by discomfort in the pit of my stomach every few days or oftener.* (T)
- 101. *Often I feel as if there is a tight band around my head.* (T)
- 111. *I have a great deal of stomach trouble.* (T)
- 142. *I have never had a fit or convulsion.* (F)
- 159. *I have never had a fainting spell.* (F)
- 164. *I seldom or never have dizzy spells.* (F)
- 175. *I feel weak all over much of the time.* (T)
- 176. *I have very few headaches.* (F)
- 182. *I have had attacks in which I could not control my movements or speech but in which I knew what was going on around me.* (T)
- 224. *I have few or no pains.* (F)
- 229. *I have had blank spells in which my activities were interrupted and I did not know what was going on around me.* (T)
- 247. *I have numbness in one or more places on my skin.* (T)
- 255. *I do not often notice my ears ringing or buzzing.* (F)

295. *I have never been paralysed or had any unusual weakness of any of my muscles.* (F)
464. *I feel tired a good deal of the time.* (T)

#### **Family conflicts (Lachar-Wrobel Critical items)**

These items relate to problems such as disagreements with or hostility towards family members other than the spouse. The number next to the item refers to its original number in the test booklet.

21. *At times I have very much wanted to leave home.* (T)
1. *I have very few quarrels with members of my family.* (F)
125. *I believe that my home life is as pleasant as that of most people I know.* (F)
288. *My parents and family find more faults with me than they should.* (T)

#### **4.3.6 MMPI diagnoses**

The MMPI was not originally developed with the view to make clinical diagnoses. However, many MMPI scales have proved to have good correspondence with clinical groups, especially with the categories of the DSM-IV (Butcher & Williams, 1996). The computer programme used in the present study generates clinical diagnoses, but these diagnoses should not be the primary consideration in reaching a clinical diagnosis. In the present study, diagnoses generated by the MMPI were examined, and then compared with the BDI-II and the information obtained through the Structured Questionnaire.

#### **4.3.7 Psychometric properties of the MMPI**

According to Strassberg (1997), since the introduction of the MMPI-2, a number of investigators have attempted to examine empirically the psychometric properties of the test's Content Scales. In general, these studies have reported favourably on the criterion-related validity of at least some of its scales. A concurrent validity study was

done of the MMPI-2 Content Scales, designed to assess symptoms of Anxiety (ANX), Depression (DEP), Low Self-esteem (LSE), and Anger (ANG) (Ward, 1997). The results showed that these scales have a strong concurrent validity and that their ability to provide valid information is beyond that which is provided by more traditional MMPI-2 clinical and validity indices.

Ward (1997) accounts that the MMPI-2 as a measure of anxiety and depression is able to show a full description of psychopathology in these areas. In accordance with Strassberg (1997), Ward (1997) also evaluated the ANX and DEP Content Scales for internal consistency. The results showed that the MMPI-2 Content Scales had adequate internal consistency reliabilities and construct validity.

#### **4.3.8 Theoretical foundations of the MMPI**

Underlying the MMPI is a number of assumptions about the nature of the human psyche. This includes an atomistic view, in which it is accepted that the psyche consists of *components*, such as various affects and cognitions that can be distinguished from each other. The MMPI does, however recognise the complexity of the human psyche, and makes provision for various dimensions of psychological functioning, including cognitive, affective, somatic and interpersonal facets. It also recognises the role of environmental factors, such as the work and family environment. In this sense, it shows affinity with the biopsychosocial model, which developed out of the criticism of the narrow focus of the biomedical model (Sheridan & Radmacher, 1992).

The MMPI is also based on the assumption that the various facets of the mind can be measured and quantified, thus seeking for general patterns in behaviour that are not context bound. It further assumes that individuals can be compared on these dimensions. It thus stands in contrast to post-modern approaches, such as social constructionism (e.g. Gergen, Hoffman & Anderson, 1996), that emphasise the context-boundedness of psychological experiences.

The various scales of the MMPI can be interpreted in conjunction with each other to identify possible causes for behaviour. For example, if a high score on Low Self-esteem occurs in conjunction with high scores on Family Problems, hypotheses could be formulated regarding the causative role of family dynamics with regard to self-esteem. The scale thus lends itself to psychodynamic inferences. Interpretations are based on a linear view of causality, and are thus associated with the modernistic paradigm in psychology.

To the extent that the MMPI can generate nosological diagnoses of patients, it is based on the view that particular configurations of symptoms can be used to infer an underlying disease entity. This is based on the biomedical approach, which is also situated in the modernistic paradigm.

#### **4.3.9 Conclusion**

Despite extensive search, the author could not find any literature on the use of the MMPI among Black South Africans. The MMPI does, however, cover dimensions that are potentially very useful for the study of depression among Black patients. Reference has already been made (see Chapter three) to the role of somatisation in the way in which depression presents itself among Black patients. Apart from the Depression Content Scale and the Depressed Suicidal Ideation Critical Item Scale, the MMPI also contains scales to assess somatic preoccupations. In Chapter three it was also indicated that the way in which syndromes (such as depression) present, might be subject to the level of acculturation of Black South Africans. Since the MMPI assesses both somatic and cognitive-affective dimensions, it might prove to be useful for assessing this syndrome in a population characterised by cultural transition. To the extent that low self-esteem, family problems and work-related problems play a role in depression, the MMPI Content Scales that deal with these aspects, could also be useful for assessment of depressed Black patients.

There are, however, some ways in which the MMPI might not accommodate the thought patterns and symbolism of Black South Africans. There are no Content Scales

or Critical Item Scales that relate specifically to the metaphysical dimension. It has been well documented (e.g. Mbiti, 1969; Ngubane, 1977; Setiloane, 1976; Vilikazi, 1997) that this dimension plays an important role in the way in which Africans, especially those who adhere to the traditional African cosmology, interpret illness, including mental disorders.

The MMPI is unlikely to be useful for all sectors of the Black population. It requires a reading level of Grade six according to American standards, and this mitigates against its use among large groups of the South African population.

It can be concluded that the MMPI is valuable in the sense that it allows one to systematically examine the components of a syndrome and also in the sense that it is able to provide diagnoses on the basis of which a treatment programme can be initiated for patients. It is a useful measure to establish the validity of a diagnosis and to delineate its symptomatic range.

#### **4.4 THE RORSCHACH INKBLLOT TEST: A COMPREHENSIVE SYSTEM**

##### **4.4.1 Background**

Hermann Rorschach, a Swiss psychiatrist, began to experiment with ambiguous inkblots around 1910 and this led to the development of the Rorschach Inkblot test. Rorschach died in 1922, at an early age, after having devoted himself to a serious study of the inkblots for a comparatively brief period (Exner, 1974).

In the Rorschach Inkblot test, a standard set of 10 inkblots serves as stimuli for associations. The blots measure 7 by 9 ½ inches. Five of the cards are in black and white and the remaining five are in colours (Kaplan & Sadock, 1997).

According to Exner (1974) the Rorschach has stimulated great interest, extensive use and considerable research since its introduction. In the 1940s and 1950s, its name was almost synonymous with clinical psychology. While flourishing as an important tool

for the practitioner, the technique was often reported to be baffling to the researcher and irritating to those with strong allegiance to stringent measurement theory. Criticism of the test, both founded and unfounded, has been widespread. As its clinical status increased, attacks against it became more serious and seemingly extreme. Many have judged its worth with contempt and have advocated its abandonment, while others have defended the technique, purporting it to be one of the most effective of the clinical instruments (Exner, 1974).

In the third quarter of the twentieth century, Klopfer (1954) and Exner (1974) noted that a great deal of research with regard to the Rorschach had accumulated, but that this was never brought together in book form. Exner (1974) observed that by 1955 more than 3000 articles had appeared concerning the test and by 1957 each of the five major Rorschach systems (Beck, Hertz, Klopfer, Piotrowski, and Rapaport-Schafer) had crystallised fully. However, none of the above systematisers began with the intention of creating a Rorschach system that would be distinctly different from that of Rorschach himself, or different from other Rorschach authorities.

All these factors motivated Exner to undertake a comparative analysis of the best previously developed approaches to the test. It included previous research initiated between 1967 and 1972 that might be relevant to decisions about the format and basic components of an approach to the Rorschach. Although this appeared to be a good idea to many of the Rorschach users, there were arguments against this undertaking, including the following (Exner, 1994):

- (a) First, the Rorschach was no longer in its youth. It was more than fifty years since the publication of Rorschach's classic monograph on the Rorschach, and more than forty years since Beck, Klopfer, and Hertz began developing their respective approaches to the test. Therefore the test was well established and a new approach to the test was regarded as unnecessary.
- (b) Second, at the time there had been a decreasing emphasis on psychological testing and projective methodology in particular. The Rorschach no longer



held the place of distinction, as once was the case. This de-emphasis occurred, in part, because of the expanding role of the clinician in the professional world. Therapeutic skills were afforded more emphasis in training, and assessment in general was often relegated to a minor position. The result was that students received less formal training in traditional methods of psychodiagnostics. Whether this de-emphasis was appropriate was argued extensively, but its very existence seemed to mitigate against any new Rorschach approach.

- (c) A third element arguing in favour of maintaining the *status quo* of the Rorschach was that the existing approaches to the test appeared to work quite well in the clinical situation. The Rorschach had been the most frequently used instrument for assessment since 1940. Since it worked well, and the test was being used extensively, any new approach seemed both presumptuous and extraneous.
- (d) Finally, Exner personally was ambivalent to undertake this work. During the period from 1962 to 1968, he had many close contacts with most of the systematisers and he came to regard them with great affection. During these six years, he had many interviews with Beck, Klopfer, Hertz, and Piotrowski and sometimes became hesitant that the project could not be completed because of their substantial differences. David Papport had died before Exner settled down to develop a new system, but had warned him to *know all the Rorschach*. This is what stimulated the idea in Exner to continue with the project.

Despite the negative criticism of the Rorschach Inkblot test, Exner was determined to develop a new and comprehensive system. Some of the motivating factors were as follows (Exner, 1994):

- (a) The systematisers themselves: Samuel Beck consistently maintained that the Rorschach was *incomplete* and publicly encouraged *young researchers* to

continue its investigation. In a meeting Exner had with Bruno Klopfer, the latter encouraged a *sequel* to the comparative analysis, suggesting that while the intersystem differences may have been acceptable, and even healthy at one time, the obvious proliferation of the test could only diminish its ultimate usefulness. Zygmunt Piotrowski encouraged Exner to consider the use of computers to study the test, and Marguerite Hertz exuded an atmosphere of enthusiasm for the Rorschach that encouraged people around her.

- (b) A second major source of encouragement to the undertaking was from the students of the test. They believed that if Exner's approach were to be successful, it would yield methods that could be easily taught and implemented.

In order to minimise the proliferation of the test into many different approaches – in other words, to provide some reasonable standardised base from which the Rorschach could be used, researched, and further developed, Exner's Comprehensive System was introduced (Exner, 1974). The first Rorschach Research Foundation, usually referred to by the nickname Rorschach Workshops, was established in 1972. Large numbers of people, consisting of examiners, researchers, assistants, project directors and associates, have been involved in the Rorschach Workshops since its inception. Early into that period the Comprehensive System was formulated and has continued to develop. As researchers accumulated new data, additions and changes were made to the System.

According to Vincent and Harman (1991), the initial publication of the first volume of the Exner approach to the Rorschach was completed in 1973. It was published in 1974 as *The Rorschach: A Comprehensive System*. Its subsequent three volumes (Exner, 1978, 1986; Exner & Weiner, 1982) and a Workbook (Exner, 1989) that were published are regarded as proof that the Rorschach scoring is psychometrically sound. According to Armstrong (1991), the standardisation of procedures and scoring by Exner has stimulated considerable research, confirming many of the predicted behavioural correlates of test scores. The focus on valid and reliable scoring,

generating structural summaries and establishing interpretations based on verifiable norms has invigorated the use of the Rorschach. The widespread research that has been done based on Exner's approach, has provided evidence of its reliability and validity, and has counteracted the belief that the Rorschach is intuitive and unscientific.

The structure of the Comprehensive System closely parallels that of the traditional systems. It focuses on procedures, scoring, interpretation, and research problems and methodologies. It can readily be learned or adopted by the experienced Rorschach clinician. Most importantly, it is designed to provide the Rorschach community with a common language and a common methodology. The System, if administered competently, scored correctly and interpreted wisely in accordance with established principles, provides the user with information regarding the psychological organisation and functioning of the subject. However, if the protocols are brief and contain less than fourteen answers, the record is not interpretatively valid (Exner, 1995).

When it became apparent that a form on which to record data from the protocols would be useful, a Structural Summary Blank was created soon after 1974. It culminated into a four page form, the first page being for basic demographic data, the second page for recording of scores sequentially, a third page containing a structural summary and the fourth page containing representations of the blots on which locations can be scored.

An important achievement of Exner's approach has been the development of various constellations or indexes, namely the Suicide Constellation (S-CON), Depression Index (DEPI), Hypervigilant Index (HVI), Schizophrenia Index (SCZI), Coping Deficit Index (CDI), and Obsessive Style Index (OBS). These constellations were empirically derived to predict clinical phenomena and to assist in differential diagnosis. The S-CON and the DEPI are relevant to this study, and are discussed next.

#### 4.4.2 The Depression Index (DEPI)

##### 4.4.2.1 Development and description of the DEPI

According to Fontaine and Jones (1997), Exner and Weiner published the first Depression Index (DEPI) in 1982. The index consisted of the following five indicators:

1. Vista responses
2. Colour Shading Blends
3. Achromatic colour responses
4. Morbid content scores
5. Egocentricity index

The index was initially found to be effective in distinguishing depressed persons from non-patients. There was however some uncertainty about the original DEPI. Subsequent studies found that, although it correlated significantly with the MMPI Depression Scale, it did not distinguish between the depressed and non-depressed subjects, especially in the case of adolescents. While the false positive rate was extremely low, the false negative rate was exceedingly high, often greater than 60% for some groups of clearly depressed subjects. Consequently a positive DEPI signaled the presence of a significant depression, while a negative DEPI was virtually meaningless (Exner, 1993).

In 1986 Exner began revising the DEPI as an indicator of clinical depression, and called this the DEPI-R. This time the subjects were divided into *emotionally depressed*, *cognitively depressed* and *helpless*. The emotional and cognitive groups were collapsed into one and used in the study to examine the DEPI-R. The revised DEPI (Exner, 1993) consisted of the following seven DEPI indicators. Where five or more conditions are true, the presence of depression is indicated (Exner, 1995).

- 1)  $(FV + VF + V > 0)$  OR  $(FD > 2)$
- 2)  $(\text{Colour Shading Blends} > 0)$  OR  $(S > 2)$

- 3)  $[3r + (2)/R] > .44$  AND  $Fr + rF = 0$  OR  $3r+(2)/R < .33$
- 4)  $MOR > 2$  OR  $(2xAB + Art + Ay > 3)$
- 5)  $(Afr < .46)$  OR  $(Blends < 4)$
- 6)  $(Sum\ of\ Shading > FM + m)$  OR  $(Sum\ C' > 2)$
- 7)  $COP < 2$  OR  $([Bt + 2xCl + Ge + Ls + 2xNa]/R > .24)$

When the DEPI is positive, it is important to review the variables in it to determine if the positive variables are related more to affective or cognitive features. Each of the indicators comprises of particular combinations of determinants, content or location scores. Some of the DEPI variables appear to be directly related to affective experience (Colour Shading Blend, C', and the Affective Ratio). Vista, S, Number of Blends, and the Sum of Shading could also have affective connotations. Other indicators are related to cognitive activities or attitudes (FD, Egocentricity Index, Morbid Content Responses and Ideation scores, and the Intellectualisation Index).

Khouri and Greenway, (1996) compared the MMPI, Millon Clinical Multivariate Inventory (MCMI) and the DEPI for detecting depression. Their study indicated that the three tests are comparable in their sensitivity to detect depression. However, high scores on the relevant dimensions of the MMPI and MCMI are not specific to depression and misclassify a substantial percentage of non-depressed patients as being depressed. The DEPI has a lower rate of false positives and a higher specificity than the other two tests. However, according to Meyer (1993), each of the variables used in the constellations was empirically derived to predict clinical phenomena and assist in differential diagnosis. These reports overall suggest that Rorschach's indices are promising psychometric markers for depression.

Vincent and Harman (1991) reported contrary results. In a study undertaken with a comparative sample consisting of adult non-patients and schizophrenic patients, together with patients with character disorders and depression, Exner's system was used to score the data and all patients with less than 14 responses were excluded from participating. The results of this study showed the Rorschach to be valid only for Schizophrenia, with little differential utility for depression and character disorders.

These authors suggest that such controversy could be resolved by replicating previous validation studies performed by (Exner, 1995).

#### ***4.4.2.2 Considerations when interpreting the DEPI***

According to Exner (1995), a DEPI of 5 is likely to indicate the presence of depressive features in a subject's present condition, although not necessarily a diagnosable primary Affective disorder. In turn, a DEPI of 6 to 7 is likely to identify the presence of either a major depressive episode or a tendency to become chronically pathologically depressed. This empirically derived cutting score for the DEPI has clinical significance that the DEPI may contribute to psychodiagnosis by virtue of yielding only a few false positives. Subjects with an elevated DEPI usually turn out to be pathologically depressed, whereas non-patients rarely show a DEPI of 5 or more, regardless of their age.

A DEPI of 4 or less may reflect important components of depressive mood states. However, a DEPI of less than 5 is meaningless as an index of depression and provides no information whatsoever concerning whether or not an individual can be diagnosed as depressed or not. False negative findings with DEPI are common. Exner (1995) advises clinicians to think about the probable presence of serious affective disorder when the DEPI score is elevated but to avoid dismissing the possibility of Affective disorder just because the DEPI is less than 5.

The Rorschach variables scored in the DEPI reflect emotional and cognitive variables, and do not measure coping capacities of people with helplessness depression. People with the latter form of depression often present with bland or dull rather than depressed affect and with noncommittal rather than negative cognition. Consequently they tend to not have elevated scores on the DEPI. The DEPI as currently constituted is sensitive primarily to endogenous depression and should not be expected to identify depressive reactions that are not sufficiently persistent, severe or recurrent to warrant diagnosis of Major depressive disorder or Dysthymia (Exner, 1995).

Overall, Exner (1995) suggests that the Index can be used to alert clinicians to the presence of depression but that it cannot identify Major Depression. The suggestion further suggests that clinical sensitivity often leads interpreters to identify depression that would otherwise go undetected.

#### **4.4.3 The suicide constellation**

Suicidal behaviour is often associated with Affective disorders. Although people who harm themselves display a wide range of personality styles and patterns of psychopathology, the most common psychological concomitant of suicidal behaviour is a depressed constellation of dejection, discouragement, hopelessness and self-loathing (Exner, 1995).

The value of projective psychological testing in determining suicide cannot be overemphasised. As financial resources for inpatient mental health care are increasingly becoming limited, psychological measures could be used to predict the need for hospitalisation and length of stay. Through the Rorschach, patients' phenomenological world and their perceptions could be entered. The way in which they interpret their environment could be recreated, and predictions could be made of self-destructive, acting-out behaviour. In clinical practice, the utilisation of a comprehensive test battery along with observational and historical data, represents the most effective way to accurately assess suicidal potential (Exner, 1993).

Silberg and Armstrong (1992) point out that when the perceptions, affects, and behavioural styles of patients are revealed in a test like the Rorschach, it potentially provides rich information for the assessment of suicide risk in the individual. The psychological state that shows profound self-destructive impulses can be captured by the variables in the Comprehensive System Suicide Constellation (S-CON) developed by Exner in 1986. The S-CON was developed from data on subject's aged 18 years or older. It was taken from a population of patients of whom 83% subsequently committed suicide and this index is thus empirically derived.

The most efficient cutting score is the presence of eight out of twelve indicators of the S-CON. If any eight of the variables are positive, a patient of 18 years or older should be identified as being at risk for suicidal behaviour. On the other hand, a S-CON of less than eight should not be interpreted to rule out the possibility of suicidal behaviour. As is the case with the DEPI, the strength of the S-CON lies in its low rate of false positives, and an elevated S-CON must be taken as an indication of suicidal risk. There is, however, also the possibility that false negatives will occur, that is, that truly suicidal people may not elevate on the S-CON.

The S-CON consists of the following indicators:

1.  $FV + VF + V + FD > 2$
2. Colour Shading Blends  $> 0$
3.  $3r + (2)/R < .31$  or  $> .44$
4.  $MOR > 3$
5.  $Zd > +3.5$  or  $Zd < -3.5$
6.  $Es > EA$
7.  $CF + C > FC$
8.  $X+ \% < 7.0$
9.  $S > 3$
10.  $P < 3$  or  $P > 8$
11. Pure H  $< 2$
12.  $R < 17$

#### **4.4.4 Description of indicators on the DEPI and S-CON**

The indicators on the DEPI and S-CON will be described in accordance with Exner (1995) in the following paragraphs. Since there is some amount of overlap between these two indices, they will thus be discussed together. Additional comments about the scoring of certain variables appear in Appendix A.



**4.4.4.1**      **DEPI:**             **$(FV + VF + V > 0)$  OR  $(FD > 2)$**   
                   **S-CON:**             **$FV + VF + V + FD > 2$**

Vista is a three-dimensional effect based on shading. It is scored **V**, **VF**, or **FV**, depending on the extent to which form is present in the response (see Appendix A). According to Exner (1993) Vista responses relate to a person attempting to handle anxiety introversively. Such people distance themselves from problematic situations. They experience painful internal feelings, and show symptoms of feeling inferior and depressed. This is associated with guilt feelings and the potential of being suicidal. According to Exner (1995), the presence of Vista response (**V**) in the structural summary reflects negative attitudes towards the self, the world and the future.

In **FD** (form based dimensional response), the elements of size and/or shape of contours, but not shading, are used to articulate a three dimensional image (see Appendix A). FD responses are postulated to be related to painful introspection and being critical of oneself, features, which are common in depression and suicide. Depressives are often found to be stimulated towards introspection by their psychopathology. The affect delay in operations noted in the pure form (Pure F) answers, is also applicable to FD, i.e. self examination as a form of coping with affective urges, a process that delays the discharge of affect through a type of reasoning which centres on the self. In other words, introspection and reasoning which centres on the self, may be a form of coping with affective urges.

If the value for FD exceeds 2 or if the value for V exceeds 0, it suggests that some unusual self-inspecting behaviour is occurring. If this occurs in a protocol containing a reflection response, it probably signals the presence of a conflict state with regard to the self-image. If the Egocentricity Index is lower than average in such a protocol, it suggests an unusual frequency of self-inspecting, probably relating to positive self-value. FD answers are generally a positive sign, unless they occur with substantial frequency. Conversely, V responses signal the presence of some irritating affective experience being produced by self-inspection. Few V or FD responses in an adult

indicate a possibility of subjects being less involved with self-awareness, and with a tendency to be naïve about the self.

- 4.4.4.2**      **DEPI:**            *(Colour Shading Blends > 0) OR (S > 2)*  
                  **S-CON:**          *(a) Colour Shading Blends > 0*  
                                  *(b) S > 3*

There are two types of blends that are of specific relevance with regard to affect. Shading Blends refer to a blend of shading indices, e.g. C' Y, V, or T, which suggests that the individual experience considerable dysphoria. Colour Shading Blends are for example FT.FY, FV.FC', or C'F. YF. The Colour Shading Blends occur much more frequent than Shading Blends. The presence of Colour Shading Blends reflects mixed feelings that prevent people from enjoying themselves. Colour Shading Blends represent a form of simultaneous presence of pleasure and pain, and occur more frequently in depressed and suicidal patients. Regardless of whether Colour Shading Blends is situational or chronic it should be interpreted in the context of other findings.

Uses of White Space (S) (see Appendix A) can often add information concerning some of the affective characteristics of the subject. All systematisers of Rorschach scoring systems have emphasised that a distorted contact with reality is illustrated when white space occurs in considerable frequency. Where S responses occur in large numbers, it represents negativism or oppositional tendencies and it could also reflect the patient's reality testing. Furthermore, it could relate to anger and aggression. The proportion of S responses in the total protocol indicates the effort being devoted to defence of autonomy. If S is less than two, it should not be regarded as significant but as indicating a natural form of self-assertiveness. If the value of S is Three or more it might indicate hostility.

Elevated S responses can indicate there will be a detrimental effect on the formation of harmonious social relationships. If the value of S is 4 or more and at least one of the white space answer was given in Card III, it indicates the presence of a very

negative, angry attitude towards the environment. This is a trait-like feature, which may have a negative influence on decision-making and on the subject's coping activities. Such people are often less tolerant in social interactions. If problems of control exist, where large numbers of S responses occur with poor form quality or with animal and inanimate movement responses (FM or m), or without any dominance of form, there is a high possibility of the presence of anger and negativism. Depressed patients tend to be negative towards the world and themselves, and such negative thoughts may lead to suicide ideation.

**4.4.4.3 DEPI:  $[3r + (2)/R] > .44$  AND  $Fr + rF = 0$  OR  $3r + (2)/R < .33$**   
**S-CON:  $3r + (2)/R < .31$  or  $> .44$**

The Egocentricity Index is calculated as:  $3r + (2)/R = 3(Fr + rF) + \text{Sum } (2)/R$

- (a) The symbol *r* refers to a reflection or mirror image based on the symmetry of the blot, and scored either *rF* or *Fr*, depending on the amount of form present in the percept (see Appendix A). In this entry, the sum of reflection determinants is multiplied by three, i.e.  $3(rF + Fr)$ , because of their scarcity in most records.
- (b) The notation (2) is used to denote two identical objects based on the symmetry of the blot (see Appendix A).

The Egocentricity Index provides an estimate of self-concern and possibly also self-esteem. The presence of reflection responses indicate that a narcissistic-like feature is strongly embedded in the psychological organisation of the subject and that it sustains favourable judgements concerning the self in relation to others. When this index falls above average, i.e. when it is .45 or greater for an adult, it is suggestive of tendencies in a subject to be over-involved with himself. In many cases, Egocentricity Index of higher than average indicates a subject who regards himself with high personal worth. In some instances however, this unusual preoccupation with the self may signal a marked sense of dissatisfaction with oneself. If the Egocentricity Index is below average in a protocol containing one or more reflection answers, it indicates that the person is in serious conflict regarding his or her self-image and self-value. In cases

where there are conflicts, there is a likelihood of extreme swinging of moods and of being dysfunctional (Exner, 1978, 1993).

If the Egocentricity Index is greater than 0.45 and there are no reflection responses, it signals an unusually strong concern with the self, that easily leads to neglect of the external world. If the value for the Egocentric Index is low average (i.e. .32 or less for an adult), it can be assumed that the subject's estimate of personal worth tends to be negative and the self-esteem is poor. Such people regard themselves less favourably when compared with others. This is often a precursor to depression.

A low Egocentricity Index in the absence of any reflections ( $Fr + rF$ ) is found when the depressed person compares him- or herself unfavourably with other people, whereas a high Egocentricity Index in the absence of any reflections ( $Fr + rF$ ) suggests an unusual preoccupation with the self (Brems & Johnson, 1990).

**4.4.4.4**      *DEPI:*       $MOR > 2$  OR  $(2AB + Art + Ay > 3)$   
                  *S-CON:*       $MOR > 3$

The heading of this paragraph contains two aspects, namely Morbid Content Responses and Ideation (MOR) and the Intellectualisation Index [ $2AB + (Art + Ay)$ ].

#### **Morbid Content Responses and Ideation (MOR)**

The MOR code is used for any response identified by either one of two classes of characteristics:

- (a) where the object is identified as dead, destroyed, ruined and spoiled, injured or broken for instance a broken mirror or a dead dog;
- (b) when an object is attributed to be clearly dysphoric in feeling, e.g. a gloomy house or unhappy person.

This is a special score derived from dealing with depressed patients and can also be used as a suicide indicator. Subjects with more than two MOR responses are negative

and pessimistic about their future, which could be indicative of depression. In this case the Rorschach imagery of depressed subjects often reflects their negative views of the world and the future e.g. *It's dark, there must be storm coming*. If MOR is greater than three, the subject is likely to have a marked disturbance in thinking and being pessimistic about positive outcomes, and suicide is suspected in such cases.

Morbid responses (MOR) also relate to depressing somatic concerns that the individual's body is weak, damaged, or deformed, vulnerable to physical harm, illness, and deterioration. (There is also another variable which signifies somatic concerns, namely the presence of more than one or two anatomy and X-ray (An + Xy) responses. These variables are frequent in all ages and indicate unusual preoccupation with the own body and the way it functions (Exner, 1993)).

#### **The Intellectualisation Index [2AB+ (Art+ Ay)].**

This index includes the special score AB (Abstract Content), which is used for human emotions or sensory experiences that incorporate a clear and specific symbolic representation, and the contents Art and Anthropology. It is calculated as two times the number of AB responses plus the number of Art and Ay contents. A high Intellectualisation Index signifies defensive use of Intellectualisation as a way of reducing the impact of emotional experiences. The use of these content categories is common among people who become very involved in their emotions, and who also experience discomfort with their emotions. When they experience intense emotions, such people are vulnerable to disorganisation, because the defence is not effective during intense emotional experiences.

#### **4.4.4.5 DEPI: (Afr < .46) OR (Blends < 4)**

This indicator contains two aspects, namely the Affective Ratio (Afr), and the number of Blends.

## The Affective Ratio (Afr)

The Affective Ratio is calculated as follows:

$$\frac{\text{Sum R (VIII+IX+X)}}{\text{Sum R (I+II+III+IV+V+VI+VII)}}$$

The Affective Ratio (Afr) was first suggested by Beck in 1944 who regarded it to represent the proportion of responses given to the last three cards more accurately than a percentage, as was recommended by Klopfer (1954). Afr is derived from the ratio of the number of responses given to the last three cards of the test as compared with the number of responses given to the first seven cards.

It relates to psychological receptiveness and interest to emotional stimulation and reflects a tendency to process these stimuli through cognitive operations. When present, it indicates that subjects are responsive to emotional stimulation by providing a proportion of answers to the last three chromatic blots. This response supports the notion that chromatic colour stimuli have the tendency to provoke more answers and it gives the impression that there is a link between responses to chromatically coloured stimuli and emotions.

An average Afr is suggestive of a willingness on the side of a subject to process emotional stimuli (as most people do, provided he/she is not chronically experiencing difficulties to control his/her emotions).

If the value of Afr is above average, it indicates that the subject is attracted by emotional stimulation. If the value of Afr is below average, it indicates a marked tendency to avoid emotional stimuli. Such people are usually uncomfortable around emotional stimuli, and as a result often become socially constrained or isolated. This symptom is commonly found among depressed patients. When depressed people experience difficulties to deal with emotions, the Affective Ratio is often low -- signifying withdrawal from emotionally charged situations (Exner, 1993).

Before receiving treatment, depressed and schizophrenic patients, more often than non-patients, tend to fall in the upper and lower extremes of Afr. After treatment, these patients show a normal distribution of Afr, while unimproved patients continue to have significantly higher or very low Afr's.

### **Blends**

Blends are scored in the Rorschach when more than one determinant has been used in the formation of a response. When this occurs during testing, each determinant is to be entered and scored separately, e.g. Form (F), Texture (T) and Shading (Y). More often only two determinants occur, but in rare cases three and even four are possible.

Since the subject gives more than one determinant in one answer, Blends indicate a complex activity at the time of the response and show that the subject has an abundance of resources readily accessible. In most instances this complexity will involve some sort of affective experience. Introversive subjects tend to give fewer blends than extroversives do. Blends occur more frequently in highly intelligent subjects and are infrequent in situations where the person is not able to interpret situations. Too many Blends may indicate a complexity of psychological activities and too few may indicate a lesser degree of complexity. If the proportion of blends is below average it indicates less sensitivity to oneself and the environment. The interpretation of blends should be based on both the quantity and substance. The absence of blends in the record of adults is a negative sign and indicates a form of psychological constriction, as can occur in depression.

#### **4.4.4.6 DEPI: (Sum of Shading > FM + m) OR (Sum C' > 2)**

A greater frequency of shading responses (SumSH) than the sum of animal and inanimate movement responses (FM + m) responses (Appendix A), point to an unusual amount of emotional distress. Larger numbers of achromatic colour responses (C') (see Appendix A) demonstrate extreme unpleasant internalised affect with dysphoric overtones.

**4.4.4.7 DEPI: COP < 2 OR (Bt + 2xCl + Ge + Ls + 2xNa)/R > .24)**

This indicator contains two aspects, namely Co-operative Movement (COP) and the Isolation Index (Isolation/R = Bt+2xCl+Ge+Ls+2xNa /R).

**Co-operative Movement**

The COP coding is assigned to any human, animal or inanimate movement response (M, FM, or m) involving two or more objects in which the interaction is clearly positive or co-operative. The positive or co-operative characteristic of the interaction must be unequivocal. Consequently, two people looking at each other or talking cannot be scored COP. Dancing will usually be coded as COP – provided that two or more objects are involved and there is a common focus or purpose of the dance, such as two people. The COP Movement is commonly found in line of priority in Card III, Card II, and Card VII. It occurs moderately in Cards I, VIII, IX and X, and very rarely in Card V. This response is almost nonexistent in Cards IV and VI.

**The Isolation Index**

This variable is related to social isolation. It comprises the sum of the primary and secondary contents in five categories, namely Botany (Bt), Clouds (Cl), Geography (Ge), Landscape (Ls) and Nature (Na) (refer also to Appendix A), with the raw sum for two categories (Cl and Na) being given a double weight. The sum of these variables is divided by the total number of responses.

The Isolation Index provides information regarding the way in which people view and respond to the social environment. With the exception of human and animal content, content categories in the Rorschach often have low frequencies. A conflict or preoccupation is however indicated when there is elevation in one of the categories. When Botany, Clouds, Geography, Landscape and Nature present in a protocol the indication may be that the subject is feeling socially isolated or withdrawn. When the



frequencies for these five contents are combined and calculated in relation to the number of responses, and when the two categories (Cl and Na) are given double weighting, they indicate negative social relations. Negativism and social isolation are common features of depression.

An elevated Isolation Index and a limited number of Co-operative Movement (COP) responses are seen in depressed patients who have lost interest in other people or social interactions.

#### 4.4.4.8 *S-CON: $Zd > +3.5$ or $Zd < -3.5$*

**Processing Efficiency ( $Zd$ )** is a difference score obtained by using the formula  $Z_{sum} - Z_{est}$ . It is a score that relates to processing efficiency, which shows if the input occurs with relative ease and whether it is accurate or not. If the value of  $Zd$  is less than -35, this signifies an under-incorporative form of scanning activity. The indication is that subjects are rushing and acting haphazardly, neglecting the critical bits in a stimulus card. Some people are able to process new material easily and appear comfortable with the process, whereas others seem less secure about their processing operations. The latter group of people will exert more effort to make sure that every feature has been explored. These people will be identified through using the  $Zd$  score.

A  $Zd$  with a value greater than 3.5 indicates an over-incorporative style, an enduring traitlike characteristic that prompts the subject to invest more effort and energy into scanning activities. Although over-incorporation may be less efficient because of extra effort, Exner (1993) views it as an asset, because the subject has been cautious and thorough in scanning, and by so doing ensures that all stimulus cues are included in the input.

This score occurs more often in psychiatric patients and indicates potential problems with cognitive processing. Cognitive problems are often found in depressed patients.

**4.4.4.9 S-CON:  $E_s > EA$**

**Experienced Stimulation ( $E_s$ )** relates to current stimulus demands and is obtained as follows:  $\text{Sum FM} + m + C' + T + \text{all Y} + \text{all V}$ , in which

- (a) FM and m respectively refer to animal and inanimate movement;
- (b) T refers to Shading Texture in which the shading components of a blot are translated to represent tactual phenomena, and can be scored either T, TF or FT, depending on the extent that form is used in the response;
- (c) Y refers to Shading Diffuse responses, in which the light and dark features of the blot are used, and can be scored either as Y, YF or FY, depending on the extent to which form is used in the response.
- (d) V refers to Vista, which is a three-dimensional effect based on shading, and is scored V, VF, or FV, depending on the extent to which form is present in the response.

**EA** refers to **Experience Actual** and is calculated as  $(\text{SumM} + W\text{sumC})$ , in other words the sum of all human movement responses (M) and weighted values for chromatic colour responses (FC + CF + C). The presence of EA in a protocol relates to the use of resources, in other words, how defences are organised and available to the subject. According to Beck (1960), an increase of human movement and chromatic colour answers represents the development of inner life and affective experiences, thereby increasing available resources. An EA with a value lower than 2.5 is more often among patients than among non-patients. Schizophrenics have higher EA responses, in which the manifest symptoms are more prominent and yet difficult to manage.

If  $E_s$  is greater than EA, it means that the stimulus demands exceed the available resources.

**4.4.4.10 S-CON:  $CF + C > FC$**

The Form – Colour Ratio ( $FC : CF + C$ ) refers to the modulation of affect. Its notation is  $FC: CF+C$ , with the total number of FC determinants on the one side of the equation, and the sum of the CF and C determinants on the other side. All the chromatic colour determinants are weighted equally in this ratio. If, for example the protocol contains 3FC responses, 1 CF response, and 1C answer, the ratio is 3:2. Appendix A contains a description of the scoring of FC, CF and C.

This ratio provides an index of the extent to which emotional discharge is modulated. FC responses reflect affective discharge that is more controlled by cognitive elements than is the case with CF or C responses. When the frequency of CF plus C responses is greater than the frequency of FC responses, the potential for lability of emotions is high. A decreased control over emotions could lead to a suicide attempt. Conversely, when there is an absence of CF or C responses; there is a possibility of excessive control of emotions.

Depressives tend to give few chromatic colour responses, whereas schizophrenics tend to give as many pure C as FC responses, and nearly twice as many CF's as FC's.

**4.4.4.11 S-CON:  $X+ \% < 70\%$**

$X+ \%$  refers to Extended Form Quality, and this percentage represents the proportion of good form usage throughout the record. The  $X+ \%$  is related to the use of the form features of the blot in a commonplace and reality oriented manner. It is therefore related to perceptual and/or mediational conventionality, taking into account that the calculation is based on the proportion of answers that are defined as commonplace by frequency criteria. A low  $X+ \%$  (less than 70%) signifies that a subject has tendencies to translate stimulus fields in ways that are more atypical. Common causes for this situation may be failure to maintain control over ideational impulses or failure to control affective experiences. Such inadequate control over ideation and emotions could lead to a suicide attempt.

Minus form quality is not uncommon, but it usually occurs in low frequencies. Exner (1993) reported that 87% of non-patients in a normative sample gave at least one minus form quality answer, whereas 99% of depressives commonly have one minus form. Higher frequencies are found among schizophrenics. Therefore, if the X+ % is low and the X-% is elevated, the impairment will be considerable and accompanied by serious interference with the capacity of the subject to make proper decisions. An elevated X-% indicates behaviour with greater inappropriateness. Should it exceed 25%, major impairment is likely to prevail.

**4.4.4.12 S-CON:  $P < 3$  or  $P > 8$**

Popular Responses (P) occur in I, III, V and VIII. The P is related to the ability to perceive and respond to commonplace features of the blot. Depressives tend to produce an average of five P responses or slightly more, with a mode of four and a median of five. A low frequency of P in the record of an adult indicates that the subject has not responded in the most conventional way, and this could be interpreted as unwillingness or inability to access the obvious. If the P is totally absent in Cards I, III, V and VIII, the interpretation may signal serious pathology or a marked sign of unco-operativeness. A low P may also be a signal of a more unique personality of a person. Given that P responses may be interpreted in many ways, it is always advisable to check the X+ % before making any interpretation of the P responses. On the other hand, many P responses in the presence of efforts to economise the use of resources may indicate an orientation towards the more simplistic, correct and conventional manner.

A high P is related to depression, which could be associated with suicidal tendencies. On the other hand, a low P could be an indication of serious pathology, which could culminate in a suicide attempt.

**4.4.4.13 S-CON: Pure H < 2**

Pure H is a precept of a whole human form. Human content (and animal content) appears more frequently than other contents. When a subject emphasises Human Detail (Hd), it may indicate constrictive defensiveness, pointing to anxiety, depression or intellectual limitations. A significantly low H has been found in criminals and delinquents. The H content is lower in Schizophrenia than in normal people and a positive relationship exists between the frequency of H and treatment effectiveness. The H can vary directly with cognitive development and the potential for social relations. It is an effective index from which to differentiate subjects who have withdrawn from social contacts.

When Pure H is scarce or not found in a protocol, it indicates a distorted view of others. The absence of Pure H is extremely rare in all age groups and failure to give at least two such responses should be a cause for concern connected with maladaptive social distance. The frequency of Pure H is useful in the interpretation of inadequate M responses in a record. For example, M production requires more ideational activity and perceptual differentiation than is the case with Pure H. If the subject gives inadequate M responses because of being non-ideational or because of a poorly articulated approach to the task, the presence of good form Pure H responses can help to rule out interpersonal abnormalities. However, if the quality of Pure H and of M is poor or inadequate, M will increase the likelihood of a pathological withdrawal from interpersonal interest and activities.

People, who are characterised by maladaptive social distance, may be more inclined to experience themselves negatively and remove themselves from society by committing suicide.

**4.4.4.14 S-CON: R < 17**

R refers to record length. This variable provides invaluable information for interpretation. R varies from one subject to another, although an average R for an

adult is between 17 and 27. Deviations from this range are not necessarily pathological. An R that falls below 17 could imply intellectual limitations, defensiveness, organicity, depression or malingering. None of this can, however, be confirmed or rejected simply by reviewing the number of responses, and other aspects of the responses need to be taken into consideration.

The depleted energy level associated with states of depression typically diminishes the number of responses and the complexity of a person's responses. Lethargic patients with lowered psychomotor functioning, rarely have much to say and often give responses less than 20. Even in cases where there are 20 or more responses, the answers are brief and unelaborated. The thematic imagery expressed by depressed persons is sometimes projected in low energy levels and described as *being tired*, *bored* etc. They often take much time to respond and their responses are delivered in a long-winded form (Exner, 1995).

#### **4.4.4 Theoretical basis of Exner's Comprehensive System**

Although the development of the Rorschach was based on the psychoanalytic approach, Exner (1995) maintains that the Comprehensive System is not based on any particular theoretical position. The descriptions provided above on interpreting the various content and determinant scores in order to obtain specifications of the uniqueness of individuals, as well as the meaning of the various indicators on the DEPI and S-CON, testify to a psychodynamic approach underlying the Comprehensive System.

Besides any other instrument of psychology, the Rorschach offers, according to Brickman (1992) a dynamic context that provides an unstructured and ambiguous experience in a defined framework. In psychology the Rorschach has been conceptualised in two different ways. First, as fantasy in which the responses are understood to symbolise underlying dynamics. The focus of the scoring and interpretation is therefore on verbal content. Second, the Rorschach is conceptualised as a catalyst of a perceptual cognitive task. In this case the test measures the

operations a person uses to organise ambiguous situations. Scoring and interpretation in this case focus on structure rather than on the content of the response. A joint cognitive-fantasy viewpoint enables us to investigate ways in which people's experiences determine how they construct and give meaning to an ambiguous reality (Armstrong, 1991).

#### **4.5 THE THEORETICAL UNDERSTANDING OF DEPRESSION IMPLICIT IN THE BDI-II, MMPI-2 AND EXNER'S COMPREHENSIVE SYSTEM**

##### **4.5.1 Introduction**

Freud's (1856-1939) psychoanalytical or psychodynamic view of human behaviour represents the first formal theory of the structure, dynamics and development of the personality. Psychoanalysis is fundamental to psychology, and much of psychological terminology is based on Freudian concepts. Since its inception, many other theories were developed in opposition to Freud's, but the former cannot be understood without a sound knowledge of Freud's theory.

The psychodynamic understanding of psychological functioning played an important role in psychology during the twentieth century. However, in the 1970's major conceptual and methodological shortcomings were raised regarding psychoanalysis and people started to question the validity thereof. Many researchers suggested a change in the manner in which human behaviour and specifically psychological disorders were understood or treated (Meyer, Moore & Viljoen, 1989).

After many years of using the psychodynamic model in the treatment of depression, (Clark et al. 1999) came up with a Cognitive Theory of depression. Although psychoanalysis is still used broadly to understand and interpret depression, the growth and status of the Cognitive Theory provides an alternative to the prevailing psychodynamic models of the 1960's. Since then it has become a significant psychological theory, having a significant effect on the way in which depression is diagnosed and treated.

The Rorschach Inkblot test was rooted in the psychodynamic approach. In this section, depression will be primarily explained with reference to the psychoanalytic approach. Although Clark et al. 1999 claim that the BDI is not based on a particular theoretical approach, it nonetheless has a close affinity with the biomedical model and with Cognitive Theory. The MMPI also leans on the principles of the biomedical model, and is further related to the biopsychosocial model. In view of this, the cognitive, biomedical and biopsychosocial approaches to depression will also be discussed.

#### **4.5.2 The psychoanalytic approach**

As mentioned above, Freud is the founder of the psychoanalytical theory. Although he was a medical doctor, his interest was in the manifestation of psychopathology in particular neurosis, with special interest in hysteria. His basic understanding of psychopathology was based on the view that repressed drives create psychological problems. In other words, the presenting symptoms are seen as expressions of unconscious conflicts or needs. The results of the symptomatic expression of conflicts or needs are the avoidance of the associated anxiety or depression (a primary gain), and the attainment of a sick role (secondary gain) (Robertson et al. 2001).

This theory is founded on Freud's subjective observations of his patients' behaviour. Despite the subjective methodology that underlies this theory, Freud's theoretical system contributed profoundly to psychology, and it has had important implications for the discipline (Clark et al. 1999). The scope of psychology as a system was considerably broadened when *unconscious* processes and phenomena were added to the study and the understanding of *consciousness*. For the first time, the dynamics of psychopathology was explained, and organised into an integral part of academic psychology. Freud's interest in neurosis gave him a broader insight into the psychodynamic functioning of normality and abnormality. This contributed to psychopathology being established as a sphere of interest in psychology that ultimately



led to the development of clinical psychology as a field of specialisation within psychology.

The psychoanalytic formulation of depression could be understood as follows:

**(a) Inwardly directed anger**

Depression is explained in terms of anger that is turned inwards as a result of early object loss that has become part of the depressed person's ego. Both the notion of a real or imagined *loss of a loved object* result in retroflected anger and this is the cornerstone of the psychoanalytic understanding of depression. In depression, psychoanalysts view the symptoms of self-criticism and self-recrimination, which are so prominent in depression, as supportive for the concept of retroflected hostility (Clark et al., 1999).

**(b) Introjection of loved object loss**

In an attempt to understand inwardly directed anger, psychoanalysts contrasted the intrapsychic processes involved in grief or mourning with those involved in melancholia or depression. Their view of normal grief is that it is a reaction to a loss of a real object for example, death of a spouse, whereas depression is identification with an imaginary object loss that is unconsciously identified with the ego or self. When the *lost object* is introjected as part of the ego, it is accompanied by regression to the oral phase of psychosexual development. In that way, anger becomes directed inwardly (oral introjection), rather than outwardly towards the real object (Mendelson, 1990).

According to Weintrobe (1998) it is important in the African Zulu culture to maintain a respectful and loving relationship with one's parents and grandparents. This in turn helps to maintain good health, good fortune and a sense of well being. A comparison of the psychoanalytic perspective with the African approach, reveals that the former maintains that a precondition for mental health is a thinking and feeling relationship

with a good internal object, where the good object also receives love and hate feelings and tolerates ambivalence. The ability to think and to express one's creativity and developmental potential is thus dependent upon maintaining relationship to a lively (good) internal object.

**(c) Severe superego demands**

According to Bemporad (1985), Freud later revised his initial position that depression is the outcome of inwardly turned anger as a result of early object loss. His modified view regarded the internalisation of a lost object as a normal process, and ascribed depression simply to an excessively severe superego.

**(d) Excessive narcissistic, oral and / or anal personality needs**

Other early theorists in the development of the psychoanalytic understanding of depression, emphasised the prominence of anal (obsessional) and oral (dependence) characteristics in the personality of depressives. According to Bemporad (1985), Rado's psychoanalytic theory of depression emphasises that depressed individuals are considered dependent on others and highly intolerant of external narcissistic deprivation. Their self-esteem is maintained by being dependent on others and they survive from the amount of love, acceptance and approval they receive from others. A small amount of disappointment is likely to trigger depression in highly dependent individuals if they do not win back the love they need.

**(e) Loss of self-esteem**

According to Mendelson (1990), other theorists consider a loss of self-esteem in which the ego finds itself in a hopeless and helpless state, as the cardinal feature of depression. These theorists put their emphasis on understanding depression in terms of ego deficiencies.

**(f) Deprivation in the mother-child relationship during the first year**

According to Gotlib and Hammen (1992), Klein, in an attempt to understand depression, turns to the quality of the mother-child relationship during the first year of life. She contends that a person becomes vulnerable to depression, if he/she did not develop a loving and secure relationship as a child, as it then becomes difficult to overcome ambivalence towards love objects. Such individuals as a result become vulnerable to depression as adults.

Despite its continuing influence, there remains considerable criticism and ambivalence with regard to the psychoanalytic theory and the treatment of depression. Firstly, many psychodynamic constructs cannot be operationally defined with sufficient precision to allow empirical investigations. Furthermore, when experimental research is attempted, predictions derived from the model are often not validated. In the area of depression, for example, the concept of retroflected anger is not well supported by empirical studies (Beck, 1967).

A second criticism is that psychoanalysis emphasises unconscious intrapsychic processes and early childhood experiences, rather than the patient's conscious negative self-verbalisations that are caused by ongoing distressing and undesirable life-experiences. Neglecting current cognitive processes related to patients' ongoing experiences, is a serious omission, and leads to clinicians overlooking important aspects of depression (Beck, 1967; Clark et al, 1999).

A third reason for discontent is that psychodynamic therapy is costly, lengthy and of questionable efficacy, not only for depression but also for other psychological disorders. Given its length, expense, and lack of superiority in efficacy over the briefer forms of therapy, it therefore cannot be made the treatment of choice. Follow-up studies of the effectiveness of long-term psychoanalytic treatment for depression are scanty (Mendelson, 1985). The controversy over the effectiveness of psychodynamic psychotherapy, as well as the increased demands for brief and

effective treatment, has therefore, since 1970, created a receptive environment for alternative approaches to depression (Bachelor & Raymond, 1996; Clark, 1999)

#### **4.5.3 The cognitive approach**

In the 1960's and 1970's behavioural theorists, with their famous *Learned Helplessness Theory* of understanding depression, coexisted with psychoanalytic theories. The behavioural approach nevertheless overlooked the importance of cognitive processes in depression, and criticism of both behavioural and psychodynamic theories and treatment of depression made significant contributions to abandoning the prevailing theories on depression, and using cognitive constructs to explain depression as an alternative approach (Clark et al., 1999).

Beck initially practiced as a psychoanalytic and psychodynamic psychotherapist. He developed his cognitive theory and therapy of anxiety and depression during the controversial period when the scientific nature of both the psychodynamic and behavioural therapies of depression was questioned. Beck's cognitive theory of depression is based on experimentation as well as on clinical observations. He rejected his own initial psychodynamic formulation of depression and embarked on a completely different approach to understanding and treating depression. This theory is discussed with reference to its two most important concepts, *automatic thoughts* and *schemas* (Bongar & Bleur, 1989):

##### **Automatic thoughts**

While treating depressed patients with psychoanalysis, Beck discovered that his clinical observations were inconsistent with psychoanalytic theory. It happened for the first time when one of his patients during a free association therapy did not report the stream of thoughts (automatic thoughts) that were taking place during the sessions. These thoughts were discovered by Beck to be negative in nature and he termed them *automatic negative thoughts*. They were fleeting, consistent, plausible and distorting reality. Beck (1976) noted that while patients were experiencing the first stream of

thought, there was another stream of self-critical thinking that they usually were not aware of. It became clear to Beck that patients were constantly communicating with themselves at the automatic level.

With the discovery of automatic thoughts from his clinical observations and the results of his empirical research demonstrating a general negativity towards the self and future, Beck began to formulate his cognitive theory of depression. The latter represented a fundamental shift in conceptualising depression in terms of thought disorders, as opposed to affective disturbances. In this model Beck emphasises cognitive variables to act as factors predisposing a person to depression. Vulnerability of a depressed-prone person is attributable to enduring negative attitudes about him-/herself, the world, and his/her future. (Clark et al., 1999).

## **Schemas**

Schemas are understood to be mental representations or stereotyped ways (cognitive structures) for screening, coding and evaluating the stimuli that impinge on the organism (Beck, 1967). They enable people to make sense of their environment by breaking it down and organising it into psychologically relevant facets. As such, schemas can be regarded as manifestations of cognitive organisations. However, schemas also direct all cognitive activities –whether they are ruminations, automatic thoughts, or cognitive processing of external events.

Information processing in depression can be understood in terms of the interaction of various types of cognitive schemas that lead to the perception of an actual or threatened loss of one's vital resources. Schemas of depression can be classified as follows:

- (a) Affective schemas, which represent the subjective state of dysphoria or sadness.
- (b) Idiosyncratic schemas, that involve themes of personal deficiency, self-blame and negative expectations, and dominate the thinking process.
- (c) Physiological schemas, involving a perceived state of fatigue.

- (d) Behavioural schemas, representing a response action-plan, characterised by withdrawal and inactivity.
- (e) Motivational schemas that represent a state of helplessness, lack of goal-directness or loss of pleasurable engagement.

Schemas have content and form which are sometimes problematic, as they tend to contain chronic misconceptions, distorted attitudes, invalid premises and unrealistic goals in a form which is inflexible, closed, and impermeable. For instance, a specific situation or stressor that would be expected to lower self-esteem might activate the depressive schemas in vulnerable individuals. Once activated, the schemas sensitive to depression cause the negative automatic thoughts and cognitive errors mentioned above.

According to Clark et al. (1999), cognitive theory focuses on four emotions that reinforce or motivate adaptive behaviour involved in the attainment of basic human needs. Sadness is evoked when there is perception of deprivation of needs. Anxiety arises if the subject perceives that deprivation will cause dangerous situations. If the subject perceives deprivation to be related with injustice and offence, then depression and anger will prevail.

Cognitive theory recognises a close connection between personality, emotions and psychological disorders. In this regard, Beck refers to the connection between the premonitory personality, cognitive structures and the development of depression. The cognitive theory considers schemas, modal activation, selective cognitive processing, and states of consciousness and attention as important aspects of a cognitive formulation of depression (Clark, 1999).

The cognitive organisation of the depressed, then, is characterised by the dominance of what Beck (Clark et al., 1999) refers to as the primal loss mode of thinking. Because of the automatic, involuntary nature of primal processing, the depressed individual is not readily able to recognise this bias or imbalance in the self-referent information processing system. In depression, the negative self-referent schemas of

the primal loss mode become highly activated as a result of negative life stressors. Once activated, these prepotent cognitive structures dominate the information processing system and lead to the negativistic interpretations and thinking that characterises the depressed state.

Blaney (1977) criticised Beck's cognitive model as being too imprecise and too accommodating of contradictory findings on depression, therefore making it relatively immune to disconfirmation, and thus unsatisfactory as a scientific theory. Blaney (1977) and Teasdale and Barnard (1993) argue that the key concepts, such as depressive schemas, are incompletely specified and too imprecise to serve as a valid model for experimentation. According to Teasdale and Barnard (1993), Beck's cognitive model of depression is clinical, rather than a scientific theory. This makes it inadequate as a guiding theory for experimentation on psychological disorders such as depression. Finally, the theory also fails to account for differences between cognitive and emotional phenomena.

#### **4.5.4 The Biomedical and the Biopsychosocial models**

The biomedical model has its roots in ancient Greece. Hippocrates, who is regarded as the father of medicine, emphasised that illness results from an alienation from the natural order. He advocated that healing takes place when the balance of the forces of nature is restored. Although this view is holistic in nature and regards the whole person as representing the essence of health, while not reflecting the atomism and reductionism characteristic of the modern biomedical approach, it did lay the foundation for the development of the biomedical model. It gave the field of medicine a perspective that focuses more on diseases than on health. According to this view, health can be defined in terms of an absence of disease (Feist & Brannon, 1988).

Galen, a Roman physician who lived in the second century A.D., was the first to focus on diseases as being attributable to specific causes such as pathogens. He advocated that a micro-organism or virus could cause a disease. This view was a breakthrough in the field of medicine in the understanding of illness and its causes. It

allowed medicine to make great strides in conquering or controlling many of the diseases that have ravaged humanity (Feist & Brannon, 1988).

The development of the medical disciplines, culminated in what has become known as the biomedical model, which is currently still a dominant paradigm. This paradigm was strongly influenced by Cartesian dualism, which regards the mind and body as separate entities. René Descartes (1596-1650) regarded the human body as similar to a machine, whilst he saw the mind as a different kind of spirituality. According to Descartes, the functioning of the mind and body was radically split apart (Wickramasekera, Davies & Davies, 1996).

The role of psychological factors in determining health and illness was considered very important before Cartesian dualism became an accepted mode of thinking. Premodern physicians believed that images and emotions were major influences on the disease process. In contrast, the biomedical model determines images and emotions as belonging to the mind and therefore not being capable of affecting the body. The discovery of external agents of disease such as bacteria, viruses, chemicals and vitamin deficiencies lent support to this view. Within the framework of the biomedical model, only biochemical factors are considered. Social, psychological and behavioural dimensions fall outside its narrow framework and are therefore ignored (Sheridan & Radmacher, 1992).

According to Foss and Rothenberg (1987), the biomedical model is based on the assumption that the principles and methodology of the natural sciences can be used in the health and mental health sciences to understand the genesis and cure of diseases.

The biomedical model focuses on the disease, rather than on the whole person. It accepts that each disease is a separate entity and due to a specific biochemical deviation within a person (Feist & Brannon, 1988; Foss & Rothenberg, 1987). According to Parkins and Pergarm (1974), the biomedical model emphasises the relationship between symptoms and abnormal physical signs on the one hand, and the underlying disorder of structure and physiology on the other hand. For this reason,



the manner in which disease interferes with normal structures and functions of the body is studied, with emphasis on outline of structure, mode of action, and the manner in which disease interferes with normal function. The importance of the patient's history and physical signs, which lead to an understanding of the pathological conditions underlying the abnormalities, cannot be overemphasised from the perspective of the biomedical model.

Investigations of the patient are designed to use the most relevant procedures required for establishing a particular diagnosis. The approach typically follows the systematically sequence of first taking the history, then conducting a medical examination and then following special investigations if necessary (Parkins & Pergarm, 1974).

The objective of the medical examination is to obtain complete information about the present and past illness and the environmental background with which an accurate diagnosis can be made. At the completion of the history there should usually be adequate information of the disease to enable a provisional or differential diagnosis to be made. The physical examination may confirm this diagnosis, or help to distinguish between two or three alternative diagnoses, which may have been considered. A precise diagnosis cannot always be reached from the history and physical examination. Frequently, a number of possible conditions must be considered and further ancillary investigations may be necessary (Parkins & Pergarm, 1974).

The idea that illness resides within the patient and is due to identifiable pathogens has lead to a growing dissatisfaction with the traditional biomedical model. David McClelland, one of the leading researchers in health psychology, described the biomedical model as a mechanistic model. He said that the biomedical model treats the body like a broken machine, that needs to be fixed by removing or replacing the ailing part or destroying the foreign body that is causing the problem. (Feist & Brannon, 1988)

The dissatisfaction was related to various factors. Major changes within the field of health, where the changing patterns of illness resulted in escalating costs for medical care, for example by using expensive medical examinations in an attempt to look for the cause, served as one stimulus to regard health and illness in alternative ways. Critics saw the biomedical model to be promoting specialisation and relying too much on costly treatment. An approach of less reliance on medical services, and more reliance on individual is advocated. In this instance the environment and personal behaviour are more crucial than medical care in determining who will be healthy and who will become ill (Parkins & Pergarm, 1974).

The narrow perspective of the biomedical model is broadened by another stimulus: There is a growing awareness that a large percentage of all patients who visit primary health care services suffer from diseases that are attributed to psychosocial problems, but manifested with physical complaints. The diagnosis, prevention and treatment of stress-related diseases and somatisation disorders require an approach that integrates psychological, physiological and social dimensions. Studies in the field (of for example family medicine), have proved the effective use of a broader model in dealing with such complaints while addressing the person in a holistic approach (Wickramasekera, Davies & Davies, 1996).

According to Papaikonomou (1991) there has also been a shift by medical practitioners towards acknowledging psychologists' important role within the medical setting. It is becoming increasingly more evident that, despite the fact that people can be assisted medically, their health or sense of wellbeing may not necessarily become enhanced. The person's environment may be more pressing and central to distress than the symptom itself.

The criticism regarding this model created challenges for health workers to broaden this approach to disease and to include the psychosocial, without having to sacrifice the medical model. In 1977 Engel (Feist & Brannon, 1988) advocated a model whereby the cultural, social, psychological and behavioural dimensions interacting with biochemical deficiencies are considered. Views such as this contributed to the

formulation of biopsychosocial model. This challenge implies a holistic (biopsychosocial) approach to patient care. The core of the holistic viewpoint is that mind and body are inseparable and mutually dependent. It is a unique way of representing a complex interaction of body, mind and spirit. When these elements are in harmony, a state of health exists, while illness erupts when this balance is disrupted (Papaikonomou, 1991).

There is great resistance to expanding the biomedical model to include psychological and social factors. This causes the biomedical model to have more power that goes beyond the limits of a scientific model. In spite of resistance, the biomedical model is facing serious challenges. The assumption that only the biological factors of health and disease are worthy of study and practice is not appreciated by many and falls under scrutiny. There is a growing awareness that health and illness have many dimensions. Social and psychological factors influence biological functioning and play a role in health and illness.

The biopsychosocial model does not suggest that biomedical influences should be disregarded. The model should be expanded by including psychosocial factors, without sacrificing the enormous advantages of the biomedical model. When the psychosocial factors form part of the model, the treatment approach will have the capacity of taking into account the human qualities of both patients and physician. This is seen as a more realistic approach, which encompasses the life styles of people and their impact to health and disease (Feist & Brannon, 1988).

The biopsychosocial model is based on the General Systems Theory with the assumption that systems exist within systems and nothing exists in isolation. This approach forces health practitioner to consider the effect of their treatment on the whole patient rather than dealing with the part they are trying to fix only. This differs from the biomedical model that neglects the whole because it excludes everything but biological factors. Biological factors should however not be underestimated in the treatment of a disease. (Feist & Brannon, 1988).

This broadening is also inherent in the approach of the present study, where cultural, social, behavioural, and medical dimensions are integrated. This includes examining the following:

- (a) Behavioural manifestations of depression, for example in the BDI-II and in the Structured Questionnaire.
- (b) The correlates of depression, such as health and family aspects as measured by the MMPI-2.
- (c) Affective, cognitive, interpersonal and self-perceptive aspects of depression, as measured by the Rorschach, the BDI-II and the MMPI-2.
- (d) Various facets of a person's functioning in a cultural, work and family context, and the stressors, problems and symptoms of depression.

#### **4.5.5 Conclusion**

There are certain parallels between the biomedical and biopsychosocial models, and the cognitive and psychodynamic approaches:

##### ***4.5.5.1 Linear causality***

All the approaches discussed above accept that there is a linear relationship between symptoms on the one hand, and an underlying disorder on the other hand. These approaches thus endeavor to comprehend an illness in terms of its causes. Whereas the biomedical model focuses on dysfunction of anatomical structures and physiological functioning, the biopsychosocial model gives recognition to additional aspects of human functioning. The psychodynamic approach focuses on adverse psychological experiences the person has gone through, while the cognitive model focuses on aberrant thought processes. The biomedical model determines these causes through the use of medical examinations and specialised investigations. In the cognitive and psychodynamic approaches clinical observations and psychometric assessments such as the BDI, MMPI or the Rorschach are used.

#### ***4.5.5.2 Focus on the individual***

Similar to the biomedical and biopsychosocial models, which focus on deviation within a person (in other words, the notion that an illness resides within the patient), the psychodynamic and cognitive approaches also focus on the dynamics of the individual. Although environmental factors, such as disjunctive interpersonal relationships, may be recognised as contributing to the disorder, the focus is on the individual's functioning, and not on the relationship between the person and the environment *per se*, as is the case in Systems Theory.

#### ***4.5.5.3 Nosological entities***

The biomedical model regards each disease as a separate entity. Similarly, the biopsychosocial model also accepts the presence of disease entities. In the earlier psychodynamic approach, efforts were made to explain the distinctive dynamics of the various psychological disorders. In the cognitive approach typical thought processes characteristic of a mental disorder, such as depression, are described. Mental disorders are thus regarded as separate entities that present as a complexity of symptoms.

#### ***4.5.5.4 Importance of the patient's history***

The biomedical model emphasises the importance of the patient's history, which leads to an understanding of the pathological conditions underlying the abnormalities. Similarly, the psychodynamic approach believes that events taking place in early childhood, such as object loss, contribute significantly to the development of a disorder.

## **4.6 CONCLUSION**

All three the instruments discussed in this chapter depart from an *etic approach* to diagnosis, in contrast to an *emic approach*. An **emic** approach requires that mind and

behaviour be interpreted in terms of the cosmology that is consensually validated in the culture of the people under investigation. Its point of departure is that psychological phenomena cannot be explained or understood in terms of the worldview of another culture. The use of foreign theoretical constructs is accordingly avoided. It also does not aim to generalise across cultures, but merely to understand phenomena in the context of a particular system of meanings (Lonner, 1979).

In contrast to this, an **etic** approach seeks to identify constructs, stimuli or molar psychosocial abstractions which are universal to all mankind (Lonner, 1979). In its radical form, it postulates that the structure and processes of the human psyche are fundamentally the same for all people, irrespective of culture. Provided sound methods are followed, the regular occurrence of psychological processes can be identified. It is thus focused on the essential, basic and universal aspects of mind and behaviour.

The BDI and the MMPI contain items that are assumed to be relevant to all people, irrespective of their culture. The Rorschach could lend itself to an emic approach, in which the psychological realities of people could emerge in the context of their own meaning systems. However, the Comprehensive System of Exner (1993) is based on variables and norms, which are accepted to have universal applicability.

The emic and etic approaches are not in opposition to one another but they represent different ways of understanding mental processes in their cultural matrix. They are not competitive, and both are legitimate. Each has its own objectives, methods, and theoretical principles. Bhana (1987:168) states: "One needs to abstract emics of behaviour and perhaps then aim towards the true etics of behaviour as applicable to all South Africans. In this way the procedure we eventually follow would explain the full range of a particular variable under study."

## CHAPTER 5

### RESEARCH PROCEDURE AND METHOD

#### 5.1 INTRODUCTION

This study attempts to identify a suitable and comprehensive approach for the diagnosis of depression among Africans. This includes determining the efficiency of the Minnesota Multiphasic Personality Inventory-2 (MMPI-2) (Butcher & Williams, 1996), the Beck Depression Inventory II (BDI-II) (Beck, Steer & Brown, 1996) and the Rorschach Comprehensive System developed by Exner (1974) in detecting depression among Africans. Data was collected from 162 depressed in-patients between 1998 and 2000.

In this chapter, the method followed for conducting this study is presented. The selection of participants, procedure of data collection, and the method of data analysis are described. The chapter commences with a description of the overall research design.

#### 5.2 RESEARCH DESIGN

Research paradigms incorporate fundamental assumptions, beliefs and values about the nature of reality and the scientific pursuit of knowledge. It was indicated in Chapter four that concepts such as *linear causality* and *nosological entities*, implicit in the theories underlying the measurement instruments that are used in this study, place these instruments in the domain of modernistic and positivistic science. The latter is explained next:

Modernism relies on logical reasoning, future-orientation and progressiveness. It has confidence in technology and science, and embraces the view that there are standards of beauty, truth and morality about which many people can agree (Neuman, 2000).

According to Neuman (2000), positivist social science played a central role in research in the social sciences during the twentieth century, and continues to be a prominent research paradigm. In the 1960's, after re-evaluating the social sciences, three approaches were identified which represented fundamental differences in outlook and alternative assumptions about social science research. These three approaches are positivism, interpretive social science and critical social science. Most ongoing social research is based on the first two, with positivism being the oldest and most widely used and seen as the most common philosophical outlook on science.

The positivistic approach in psychology is associated with modernistic thinking and is related to the influence that the natural sciences have had on psychology. Positivism believes there is only one logic of science and that all sciences should share a common set of principles and logic. Thus, the social sciences and natural sciences should use similar approaches and principles, but can differ with regard to their content (Neuman, 2000).

Central to the positivist approach, is a linear view of causality. Through manipulating an independent variable in order to observe its effect on the dependent variable, or by other means, efforts are made to identify causal relationships. Positivists regard social science as an organised method, which combines deductive logic with empirical observations of individual behaviour in order to reveal and confirm a set of probabilistic causal principles that can be used to predict general patterns of human activity (Neuman, 2000). The positivistic approach views social reality as consisting of phenomena that can be observed and measured (Smith, 1983; Neuman, 2000). Positivists prefer rigorous exact measures, and it is thus quantitative by nature. A quantitative approach proceeds from the positivist assumption that if something exists, it exists in some degree and can therefore be numerically measured. In this approach, the researcher remains detached, neutral and objective as she/he measures aspects of social life to determine laws and regularities in human behaviour (Smith, 1983; Stiles, 1993). Positivists argue for an objective science, which is value-free. They view science as a special, distinctive part of human activity that is independent of personal, political or religious values and without biases (Neuman, 2000).



Advantages of quantitative research are that it places emphasis on the objectivity and reliability of findings. Explanations must be clear and logical without contradiction, and it has to be consistent with observed facts. This puts a check on the system for creating new knowledge, and encouraging honesty (Neuman, 2000).

Although many researchers embrace the quantitative approach, those who criticise it believe positivism reduces people to numbers. They argue that it is more concerned with abstract principles or formulas, than with the actual lives of real people. Positivism may not always be appropriate in the social sciences, as all social phenomena cannot be accurately and reliably measured and if this were to be done the validity of the findings would be reduced (Neuman, 2000).

Positivists believe that scientific methods constitute a better way of seeking the truth than to use inferior ways of gaining knowledge, such as personal experience. In contrast to this, postmodernism is highly subjective in its research approach. The postmodernists, in their extreme form, reject all ideologies and organised belief systems, including all social theories. It strongly relies on intuition, imagination, personal experience and emotions. Postmodernists believe that causality cannot be studied, since life is too complex. They assert furthermore that research can never truly represent what occurs in the social world. They criticise and blame positivists for applying bureaucratic forms of control over people (Neuman, 2000).

### **5.3 PARTICIPANTS**

One hundred and sixty two subjects who gave informed consent to participate in the research were selected for this study. The study was carried out at a private practice in Pretoria, Gauteng Province. The age range of participants was between 18 and 50 years. (A more detailed description of the sample is given in Chapter six).

The sample was drawn from patients referred for psychological evaluation at the author's private practice. They were all Black patients from different parts of South

Africa. However, most of these patients came from the province of Gauteng, where the author's practice is situated. The practice serves mainly patients from the middle and upper income groups. It is a large practice, which serves between 40 and 80 new patients per month. The total consultations per month are between 700 and 1 200 patients. The practice comprises clinical (therapeutic), forensic and psychometric sections and also renders counseling services to people to enhance their quality of life.

The sample was selected based on the following inclusion criteria:

- (a) The minimum educational standard required for entry into the study was Form 12. This was done with the view that subjects must be able to read and understand the items in the BDI-II and the MMPI-2.
- (b) Since the MMPI-2 can only be used for patients of 18 years and older, and this was used to set a minimum age restriction for inclusion; all people younger than 18 years of age were excluded, but no upper age limit was set.
- (c) All patients visiting the practice were first administered the Structured Questionnaire and the BDI-II. If the BDI score was 25 or more (high, moderate or severe depression), the patient was provisionally included in the sample.
- (d) Using DSM-1V criteria, an experienced psychiatrist examined the patients to make a formal diagnosis. Patients who received the diagnosis of Dysthymia, Major Depression or Adjustment Disorders with Depressed Mood, were considered for inclusion in the sample.

The exclusion criteria was as follows:

- (a) Patients with organic brain damage, mental deficiency and other psychiatric illness, whether associated with a depressed mood or not, were excluded from the study.
- (b) Patients with a diagnosis of bipolar disorders and patients with depressive disorders not otherwise specified (NOS) were also excluded. These depressive disorders were excluded, in view of the fact that, in the researcher's experience in the practice over a period of approximately four

years, very few patients suffering from these disorders came for consultation. Eliminating them would also render a uniform sample.

- (c) Patients who were suffering from a severe medical condition, even if it was associated with depression, were excluded.

The exclusion criteria implied that floridly psychotic patients were not included in the study. Such patients were referred to Weskoppies hospital.

It must be noted that a sample of convenience was used. All patients who met the inclusion criteria that were seen at the researcher's practice during the cut-off period specified for research (1 October 1998 to 31 October 1999) were recruited as participants. All the subjects came from urban areas in Gauteng Province. Exclusion of people from the rural areas and the non-random nature of the sampling method could place limits on the generalisability of the results to Africans from rural areas.

#### **5.4 RESEARCH INSTRUMENTS**

The BDI-II, MMPI-2 and the Rorschach Comprehensive System were used in this study. These instruments have already been described in great detail in Chapter four. In addition, a Structured Questionnaire was compiled by the researcher and used in the study. Several dimensions, which are not covered in the above-mentioned psychological tests, were included in the questionnaire. The questionnaire was aimed to provide demographic and background information of the patients. It covered the following:

- Biographical data
- Referring sources
- The history of the complaint as stated verbatim by the patient
- The presenting symptoms
- The effects of the illness on the subject's occupation
- The presence of suicidal ideation or attempts
- The perception of the patient regarding the causes of the illness
- The existence of chronic illnesses

- Perceived stressors.

A copy of the Structured Questionnaire appears in Appendix B.

## **5.5 PROCEDURE**

### **5.5.1 Stage one**

Before the main study was started, the researcher conducted an exploratory study with 53 patients aimed at examining the nature and feasibility of the research topic and the procedure. In addition, the researcher wanted to familiarise herself with the administration and scoring of the research instruments.

### **5.5.2 Stage two**

The newly referred patients were first administered with the Structured Questionnaire and the BDI-II. An in-house registered psychometrist administered both the instruments and scored the BDI, before referring the patients to the researcher. The psychometrist assisted patients who struggled to complete either the BDI or the questionnaire due to literacy related or physical problems. The patients were then referred to the psychiatrist.

### **5.5.3 Stage Three**

The psychiatrist then carried out an examination and made a formal diagnosis. Subsequent to the psychiatric evaluation, the patients were hospitalised in a private hospital. At this stage, patients were either included or excluded in the study, depending on the diagnosis as stipulated in the inclusion criteria. If included, patients were at this stage informed of the nature of the research and formally asked for their consent to participate. They had the option to withdraw if they wanted to. None of the patients withdrew.

Two black psychiatrists were involved in making the DSM-IV diagnoses. They were both trained at the same institution and their diagnostic approaches could therefore be expected to be similar. The psychiatrist who initially assisted in the study became ill, and it was thought inadvisable to use the often-changing locums who were not adequately experienced, to assist in the study. A second psychiatrist was then approached and he assisted in diagnosing the patients – he assessed approximately two-thirds of the patients.

#### **5.5.4 Stage four**

In this phase, the researcher and another in-house psychologist (with experience in the Rorschach and specific training on Exner's approach) completed the testing by administering the MMPI-2 and the Rorschach. All patients meeting the criteria specified above, were administered the Rorschach and the MMPI-2 within the first day of hospitalisation.

#### **5.5.5 Stage five**

The fifth stage consisted of the scoring of the MMPI-2 and Rorschach protocols. For the MMPI, scoring and reports were generated through using the MICROTEST Q™ Assessment System software (not dated), while the Rorschach Interpretation Assistance Programme (Version 3.12) (1995) was used for obtaining reports on the Rorschach. As far as the BDI-II is concerned, administration, scoring and reports were done manually.

The researcher and the in-house registered clinical psychologists scored the Rorschach and crosschecked each other's scoring. Mastering the Rorschach was part of the researcher's training as a clinical psychologist. After qualifying, she also utilised this instrument. To familiarise herself with the Exner system, the researcher attended two two-day training workshops on the Exner method, prior to this study. As indicated above, a pilot study was done on 53 patients, which gave the researcher practice and

experience in scoring the Rorschach. During the scoring, a third clinical psychologist, who was well versed with the Exner system, was consulted when uncertainties arose.

#### **5.5.6 Stage six**

In this phase, a coding sheet for entering all the data was compiled, before being taken for statistical analysis. After the raw data was entered, it was (with the help of two trained assistants) scrutinised for wrong entries by the author. This process was repeated until all scores were entered correctly.

#### **5.5.7 Stage seven**

In the final stage, statistical analyses and interpretation of the results were done. The relevant statistical methods were decided upon in consultation with a statistician from the Department of Statistics at the University of Pretoria.

### **5.6 STATISTICAL ANALYSES**

All statistical analyses were done by means of the SAS software package and the Bio-Medical Data Program (BMDP) .

#### **5.6.1 Descriptive statistics**

According to Diekhoff (1992), descriptive statistics are numbers computed from data that describe the data's central tendency, variability and other characteristics. Three commonly used statistics are used to describe the typical or average score in a distribution, i.e. the central tendency, with the three measures being the mean, median and the mode. For the purpose of this study only the mean will be discussed.

The mean is the most frequently used measure of central tendency. It is that point in a distribution around which the deviations sum to zero. The mean is strongly influenced by extreme scores, and is pulled towards outliers in an exaggerated fashion. This

instability of the mean makes it an inappropriate measure of central tendency when outliers skew the distribution (Diekhoff, 1992).

The variance of a distribution provides information about how *spread out* the scores is around the mean of a distribution. It represents the average of each score's squared difference from the mean (Aron & Aron, 1994).

### **5.6.2 Item analyses**

Item analyses were done on the BDI-II and the Critical Item Scales of the MMPI-2. The following statistics are considered in item analyses:

#### **Item mean**

The average score on an item reflects the central tendency of the responses to the item. When an item's mean score falls close to the lowest or the highest possible scores that can be obtained, it means that nearly all the respondents either endorsed the item, or did not endorse it (Kline, 1986).

#### **Item variance**

The variance on an item reflects the distribution of scores around the mean. Items with a low variance contribute little to the distribution of the scores, and decrease the usability of the item for discriminating between people. Larger distributions contribute to larger variance on the scale as a whole. This means that the scale can better discriminate between respondents (Kline, 1986).

#### **Correlation between items and total scores**

According to Kline (1986), the ideal is to have items that form a homogenous, discriminating scale. In item analysis the method used most commonly to investigate homogeneity, is to correlate each item with the total score and to calculate the

proportion of the complete sample that endorsed the keyed response. Depending on the level of measurement, various indices are available for calculating the item-total correlation. If items are assumed to be on an interval level of measurement, the Pearson product-moment correlation can be used (Diekhoff, 1992; Kline, 1986).

The item-total correlation indicates the contribution made by the item to the total score. The magnitude of the correlation should always be considered when interpreting the meaning and importance of a statistically significant correlation. The higher the correlation, the better the item. Ideally, all items should correlate beyond 0.20 with the total scale (Kline, 1986). Since items with item-total correlations of 0.20 share less than 5% of the variance of the total score on a scale, only item-total correlations larger than 0.20 make meaningful contributions to the internal consistency reliability of a scale. On the other hand, if the item-total correlation is larger than 0.80, it means that the particular item shares approximately 65% of the variance of the total score. If the item-total correlation exceeds 0.80, it implies considerable overlap with other items, indicating that the item may thus not make a meaningful additional contribution. It could thus be concluded that r-values between 0.80 and 0.20 are satisfactory items.

### **5.6.3 Reliability analysis**

The total obtained variance of a measurement is made up of true variance and error variance. The more error variance there is, the less reliable the measurement is; the lower the error variance, the more reliable the instrument is. Reliability can, accordingly, be considered as the proportion of true variance to the total variance of the data yielded by an instrument (Kerlinger & Lee, 2000).

The coefficient alpha is one of the most important indices of reliability (Kline, 1986). It is a measure of internal consistency reliability, that is often used for scales or tests where the scoring format is not binary (Kerlinger & Lee, 2000), such as is the case with the BDI-II. The Kuder-Richardson formula 20 (K-R20) is a special case of the coefficient alpha, which is used for dichotomously scored items, such as the MMPI.



Although there is no set criterion to decide when a reliability coefficient is "large enough", Kline (1986) regards a reliability coefficient  $>0.70$  as acceptable.

The reliability of a measurement tends to increase with its length. Kline (1986) advises that about 20 to 30 items are needed for a test to be reliable.

#### **5.6.4 Validity**

According to Aron and Aron (1994) validity of a measure refers to whether the test indeed measures what it is supposed to measure. If it does, conclusions made on test results will subsequently be appropriate. If a measure is not reliable, that is, if it is not accurate or consistent, then such a measure will be invalid. Nevertheless, even if a measure is reliable, it may not necessarily be valid – it all depends on what is being tested and the conditions under which the test is used (Anastasi, 1968). Assessing validity is more difficult than assessing reliability. There are different kinds of validity and these are discussed below as follows:

##### **Content Validity**

Content validity refers to representativeness of the content of a measuring instrument. According to Anastasi (1968) content validity is a detailed evaluation of items in a test, in order to determine if it is appropriate and representative with regard to the behaviour under scrutiny. The question often asked when content validity is at stake is: *Is the content of test measure representative of the content being measured?* If the answer is no, the test lacks content validity. Content validity is then judgmental in nature. This means that each item of the test must be judged for its presumed representativeness of the content that the test must measure (Aron & Aron, 1994).

##### **Criterion-related validity**

Comparing the test scores with one or more variables or criteria, which are believed to measure the attributes under study, does this kind of validity. It refers to the

efficacy of a test to predict the behaviour under study (Anastasi, 1968). There are types of criterion-related validity including predictive validity and concurrent validity.

*Predictive validity* refers to the use of future performance criterion, whereas *concurrent validity* involves using the criterion at about the same time. It refers to the procedure of correlating scores from one test with another variable that directly measures the same thing. That is, the test is used to assess the present status of subjects. The latter is commonly applicable when a new test is to be validated. Predictive validation applies when a prediction is to be made, for instance predicting the success or failure of students using an aptitude test (Aron & Aron, 1994).

### **Construct validity**

Construct validity is commonly used in scientific research for its significance in promoting advances in determining the validity of theory and practice. Its importance is seen when it links psychometric notions and practices to theoretical notions, for instance the measuring of intelligence. In construct validity, a common question to be asked is:

*Which constructs or factors account for variance in the test?* Construct validity differs from other types of validity, in that it deals mainly with theory, theoretical constructs and scientific empirical inquiry, involving the testing of hypothesised relations (Aron & Aron, 1994).

### **5.6.5 Factor analyses**

In the present study, the structure of the BDI-II, in which the individual items are scored on a 4-point scale, was analysed by means of factor analysis. The MMPI-2 items are binary, and a factor analysis on such scales would not lend robust results (Diekhoff, 1992)

Diekhoff (1992) refers to factor analysis as a family of related techniques, used to examine the correlations between a set of variables, with the view to identify those

groups of variables that are relatively homogenous or have high-intercorrelated variables.

The fundamental logic of factor analysis is based on the idea that it is possible to statistically manipulate the empirical relationship among several indicators, to reveal a common unobserved factor or underlying hypothetical construct. Factor analysis thus tells the researcher how well the items or indicators relate to an unobserved factor or hypothetical construct (Kerlinger & Lee, 2000).

Factor analysis can be used for various purposes in scientific research. It helps researchers to construct indexes, to assign weights to items in an index, and to statistically reduce a large number of indicators to a smaller set. Of specific relevance in the present study, is that it can be used to test the unidimensionality of scales, in other words, the extent to which the individual items measure the latent construct in the factor. In this regard it can render evidence regarding the construct validity of a scale. Kerlinger and Lee (2000) point out that, in constitutive definitions, constructs are defined in terms of other constructs, and this is essentially what factor analysis does. Through factor analysis, it can be determined which items measure the same thing and to what extent they measure what they measure. This enables a researcher to investigate the constitutive meanings of constructs, and thus their construct validity.

Factor analysis usually proceeds in four steps (Korf, 1993):

- (a) The computation of a correlation matrix for all pairs of variables;
- (b) Performing factor extraction, which determines the factors necessary to represent the data. This step includes deciding on which method of factor analysis is to be used;
- (c) Rotation of factors, which will make the factors more interpretable;
- (d) If applicable, scores for each factor can be computed for each case, which can then be used for a variety of other analyses.

Factor analysis begins with calculating the correlation between the variables that are being examined. Following this, factor extraction is done. During factor extraction, a

specified model is fitted to the matrix of the correlation between the variables (for instance, the items in a test). This process involves estimating model parameters (such as factor loadings, communalities and correlation between factors – see below) that maximise the match between the predicted (according to the specified model) and observed correlation matrices (Wegener & Fabrigar, 2000).

In this study, the BMDP software package was used to calculate a maximum-likelihood factor analysis. In the latter, as in other methods of principal factor analysis, only the variance shared by the items is used to extract the factors. This is in contrast to principal component analysis, where the total variance is analysed (Diekhoff, 1992; Tacq, 1997).

The implicit aim of the present study is to reach a conclusion about how functional the research instruments used in the study, would be in the population from which the sample was drawn. With this in mind, the maximum-likelihood method was chosen. The latter deals with inferential statistics, by making a clear distinction between the intercorrelations of the sample and the (hypothetical) intercorrelations of the population. In this method, the population parameters are estimated in such a way that the observed sample data are *least surprising* (most likely). The term *likelihood* relates to the probability of the sample's results for given population parameters (Tacq, 1997).

Maximum-likelihood factor analysis thus produces parameter estimates that are the most likely to have produced the observed matrix of correlations between the items. The method entails that the correlation is weighted by the inverse of the uniqueness of the items. That is, correlations involving items with high uniqueness are given less weight than correlations between variables with low uniqueness. An iterative algorithm is then used in which the parameters are re-estimated and the factors are again extracted with the new parameters replacing the previous ones. This continues until negligible changes occur in the parameter estimates (Norusis, 1992).

Factors are interpreted by examining the correlation between the original variables and the factor, i.e. the loading that the respective variables have on the factor(s). The square of each factor loading tells us the proportion of variance explained by the item: Thus, if an item loads 0.84 on a factor, this means that approximately 58% of its variance is accounted for by means of that factor. The sum of the squared loading on a factor is called Eigenvalues, and this indicates the overall strength of the relationship between that factor and the original variables. In practice only factors with Eigenvalues of 1.0 or greater are considered to be stable (Diekhoff, 1992).

The interpretation of factors is facilitated by factor rotation, in which the original factors are redefined by being rotated. When oblique rotation is used, this will allow the factors to be correlated (Diekhoff, 1992). In the present study, a direct quartimin rotation was performed, which is an oblique rotation, given that any resulting factors would be expected to be correlated.

#### **5.6.6 Correlation analyses**

The relationship between the various scales that were examined in the study was determined by means of the Pearson product-moment correlation coefficient. To determine whether the scales were sensitive to age differences, the correlation between age and the scales was also determined. This statistic determines the strength and direction of the relationship between variables. In this regard, it can be used to determine the concurrent validity of measurement instruments.

#### **5.6.7 The Mann-Whitney U-test**

With the view to determine whether the scales were sensitive to gender differences, the Mann-Whitney U-test was used to compare the mean scores of males and females.

Siegel (1956) reports that the Mann-Whitney-U test is a statistical test which is used when the study employs two small independent samples and it also uses measurement, which is at most in an ordinal scale. The Mann-Whitney U-test is commonly applied

to data, which might be analysed by a t- test. It is therefore regarded to be the best alternative to the t- test because it does not have the same restrictive assumptions and requirements that are associated with the t- test. According to Siegel (1956) the Mann-Whitney U- test is more powerful than the median test because it considers the rank value of each observation, rather than its location only. Hence it uses more information in the data which will have results with a better representation.

## 5.7 CONCLUSION

The present study is conducted within the framework of the quantitative, positivistic approach. Various aspects of depression are measured by means of the BDI-II, the MMPI-2 and the Rorschach. Although the Rorschach is a projective test, and protocols could be interpreted qualitatively, the quantitative approach of Exner's (1993) Comprehensive System was used, thus placing it in a quantitative framework. Additional information about the 162 patients, who participated in the study, was gleaned from a Structured Questionnaire.

The usefulness of the above-mentioned instruments for the diagnosis of depression among Black adult patients was firstly examined by investigating their psychometric properties. This included item analyses, reliability analyses and factor analyses. The relationship between the various scales, and between the scales and the age of the subjects, was examined by means of correlation analysis. To examine whether there were gender differences in the scores obtained on the various scales, the Mann-Whitney U-test was used. Various aspects of the patients' background, as determined by means of a Structured Questionnaire were also related to the data obtained from the three psychological tests referred to above. The results of these statistical analyses are reported in the next chapter.

## CHAPTER 6

### RESULTS

#### 6.1 INTRODUCTION

The results of the study are reported in this chapter. Firstly, the results from the Structured Questionnaire, which was compiled by the author, are presented. This is followed by the results pertaining to the BDI-II, MMPI-2 and the Rorschach. The chapter is concluded with an examination of the correlation between the various scales investigated in the study.

#### 6.2 THE STRUCTURED QUESTIONNAIRE

##### 6.2.1 Demographic characteristics of the sample

The mean age of the sample was 32.4 years, with a range of 18 to 54 and a standard deviation of 7.5. The gender composition of the sample was 68.52% females and 31.48% males. The largest number of respondents was married (48.15%), followed by 40.7% singles, then 6.17% divorced and 3.09% widowed.

The occupational category was divided into professionals, students and the unemployed. The largest numbers of subjects were professionals (77.78%), followed by 16.05% students and 3.70% unemployed. The professionals were people with some form of post-school education, and included policemen, accountants, nurses, teachers, managers of companies and secretaries.

With regard to religion, the subjects were divided into groups in accordance with their membership of different churches. The largest percentage of participants belonged to the Roman Catholic Church (13.1%), followed by 12.5% of the Lutheran Church, then 9.4% of the Zion Christian Church and 5% of the Apostolic Church. The remaining 53.8% consisted of those subjects who belonged to various

other denominations. Only nine participants (5.6%) said they did not belong to any church.

## **6.2.1 Referral**

### ***6.2.1.1 Source of referral***

The patients were referred by friends (35.80%), followed by general practitioners (30.56%). In addition there was self-referral (22.84%) and referral by a family member (10.49%).

The percentage of 38.89% of patients was referred to a specialist physician because of medical complaints.

### ***6.2.1.2 Reasons for referral***

Table 1 summarises the reasons patients gave for referral according to thematic categories and frequencies with which the reasons appeared. It is important to take note that the frequencies do not add up to the sample size, since some patients gave more than one reason for referral. The frequencies thus do not refer to the respondents, but to the reasons for referral.



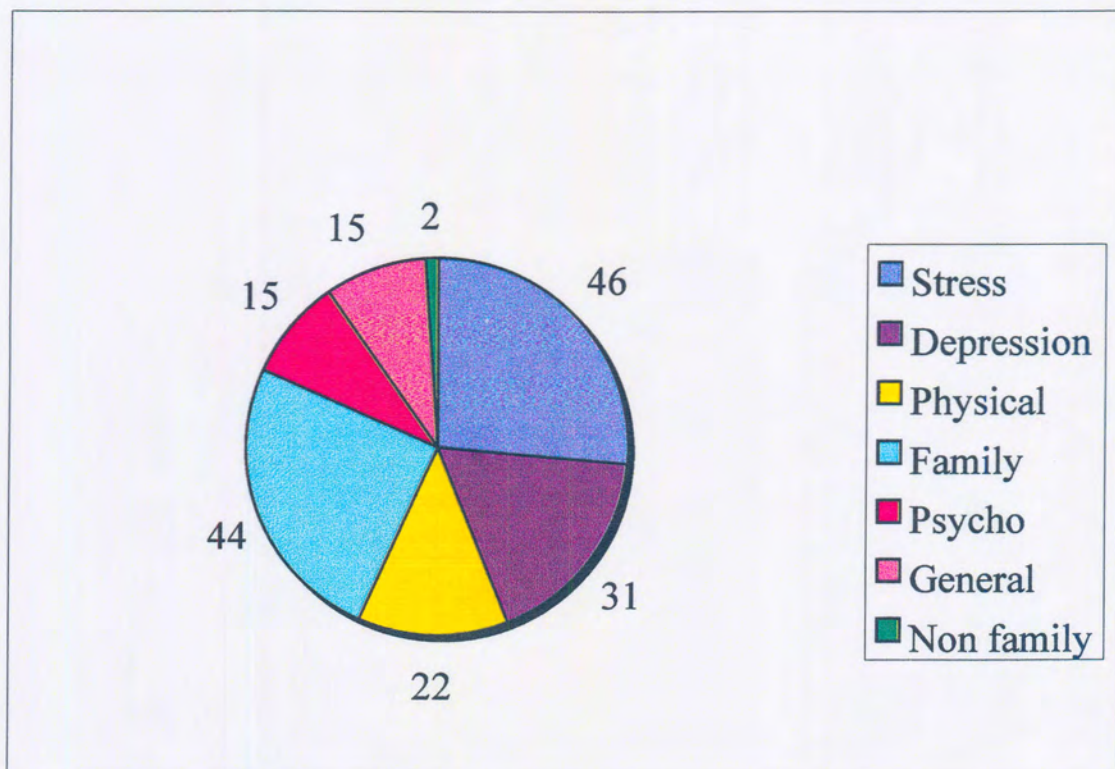


**Table 1: Reasons for referrals**

CATEGORY	REASON FOR REFERRAL	FREQUENC Y	%
Stress	Stress	46	26.14
Depression	Depression	28	15.91
	Suicide attempts / thoughts	3	1.70
	TOTAL	31	17.61
Physical complaints	Headaches	12	6.82
	Various pains	4	2.27
	Change in sleeping patterns	2	1.14
	Illness	1	0.57
	Dizziness	1	0.57
	Loss of energy, fatigue, or vitality	1	0.57
	Sweating	1	0.57
	TOTAL	22	12.51
Family	Problems with other family members	18	10.23
	Problems with spouse	15	8.52
	Death of a family member	11	6.25
	TOTAL	44	25
Psycho- pathological symptoms	Anxiety	6	3.41
	Personality problems (i.e. change in behaviour)	4	2.27
	Drinking problems	3	1.70
	Hallucinations	2	1.14
	TOTAL	15	8.52
General	Work problems	8	4.55
	Poorly defined personal problems	3	1.70
	Observation and therapy	3	1.70

	Motor car accident resulting in physical deformities	1	0.57
	TOTAL	15	8.52
Non-family	Death of non-family member	1	0.57
	Problems with non-family member	1	0.57
	TOTAL	2	1.14
TOTAL NUMBER OF RESPONSES		176	100

**Figure 1: Reason for referral**



From Table 1 and Figure 1, it appears that the main reason patients gave for referral was stress (26.14%) and family-related problems (25%). The problems with regard to family members included general relationship problems with other family members (10.23%), followed by problems with a spouse (8.52%), and the least frequent reason for referral being death of a family member (6.25%). The third most frequent reason for referral was depression (17.61%), followed by physical complaints (12.51%), notable headaches (6.82%) and various pains (2.27%). Small percentages of other physical complaints were also recorded.

Psychopathological symptoms as reason for referral amounted to 8.52%. Of this group, 3.41% of the responses related to anxiety, followed by 2.27% that related to personality problems. Insignificantly small percentages of the responses related to drinking problems and hallucinations.

### **6.2.2 Medical background**

Inquiries were made as to whether the participants suffered from a variety of illnesses. Only 7.6% of the patients once suffered from TB; 7.4% at some time or another suffered from asthma, 13.6% had a history of hypertension, 5.6% had a history of heart conditions, and 5.6% suffered from diabetes. Many patients reported they did not consume alcohol (95.1%). Nearly a quarter of the patients (22.2%) suffered from abdominal ulcers. At least 0.6% respondents reported being aware of their HIV status and 4.9% said they didn't know their status.

### **6.2.3 Presenting symptoms**

During the interview, verbatim notes were made of the patients' complaints. These complaints were regarded as their presenting symptoms, and were categorised into categories of symptoms, which are summarised in Table 2. The following five categories were used: stress, physical complaints, emotions (comprising depression, anxiety, anger and frustration), self-concept and a general category of other symptoms. The frequencies in Table 2 do not add to the sample size, because patients presented with more than one symptom.

**Table 2:**

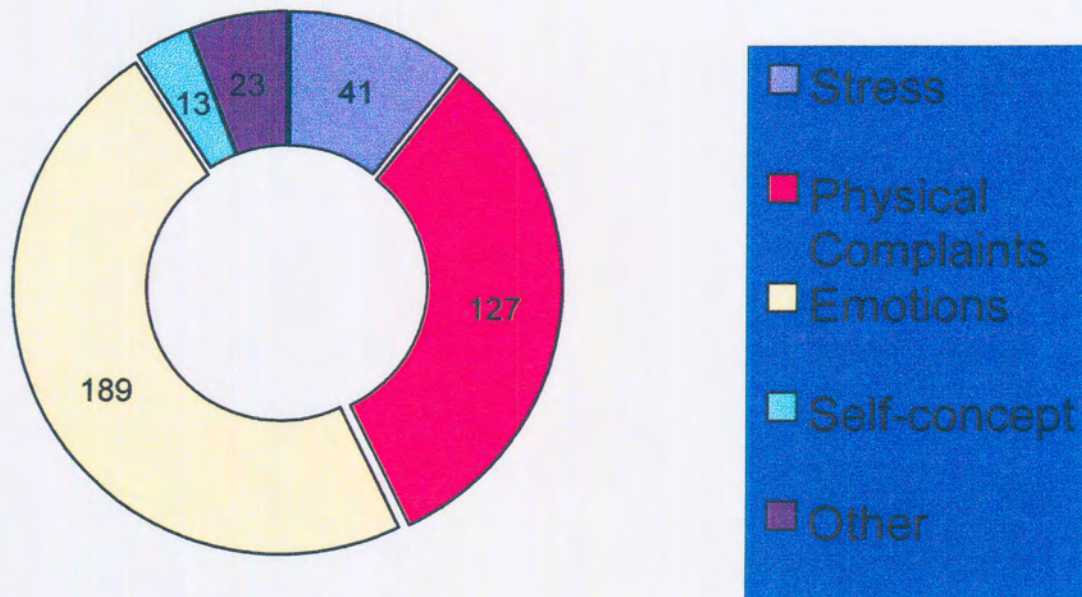
Presenting symptoms

CATEGORY	PRESENTING PROBLEM	FREQUENCY	%
Stress	Stress	41	9.4
Physical complaints	Headaches	30	6.94
	Sleeping problems	29	6.71
	Pains: abdominal, shoulders, neck and backache	22	5.09
	Fatigue and loss of energy	11	2.55
	Disturbed appetite	10	2.31
	Weight loss	4	0.93
	Unstable blood pressure	3	0.69
	Vomiting	3	0.69
	Palpitations and sweating	3	0.69
	Arthritis	2	0.46
	Allergy	2	0.46
	Shivering	1	0.23
	Loss of libido	1	0.23
	Sexual problems	2	0.46
	Sensations of heat	1	0.23
	Infertility	1	0.23
	Asthma	1	0.23
	Diabetes	1	0.23
	<b>TOTAL</b>	<b>127</b>	<b>29.36</b>
Emotions	Depression		
	Feeling depressed	33	
	Attempted suicide	4	
	Labile mood, tearful	24	
	Worried	18	
	Feeling hurt (i.e. emotional pain)	16	
	Guilt feelings	8	
	Feeling disappointed	7	



	Feeling demotivated	3	
	Feeling empty	3	
	Feeling rejected	3	
	Feeling destroyed	2	
	Having regrets	1	
	Loneliness	1	
	Loss of interest	1	
	TOTAL	124	
	Anxiety		
	Feeling confused	14	
	Anxiety	6	
	Fearful	5	
	Oversensitive	3	
	Restless	3	
	Tension	2	
	TOTAL	33	
	Anger and frustration		
	Uncontrollable anger, irritability, quarrelling	23	
	Frustrations	9	
	TOTAL	32	
	OVERALL TOTAL FOR EMOTIONS	189	
Self-concept	Low self-confidence and low self- concept	13	3.01
Other	Strange behaviour	4	0.93
	Alcohol abuse	4	0.93
	Antisocial behaviour	4	0.93
	Lacking control over life	3	0.69

Overwhelmed (in a positive sense)	2	0.46
Rape	2	0.46
Disorientation	1	0.23
Mental block	1	0.23
Materialistic	1	0.23
Extreme suspicion	1	0.23
TOTAL	23	5.32



**Figure 2:** Presenting symptoms

Physical symptoms constituted an overall total of 29.36% of the presenting symptoms. Among the physical complaints, headaches were mentioned by 30 patients and formed 6.94% of the total number of symptoms. Sleeping problems were mentioned by 29 patients (6.71% of the symptoms). Next were various pains (5.09%), whereas fatigue and loss of energy combined formed 2.55% of the presenting symptoms.

Affective symptoms constituted 43.09% of the complaints. Of this, 28.06% of the presenting symptoms were related to depression and this included specifically mentioning depressed feelings (33 patients), labile mood and being tearful (24 patients), being worried (18 patients), feeling hurt (16 patients), and other feelings associated with depression. This was followed by anxiety (33 patients, 7.63% of all the symptoms) and anger and frustration (32 patients, 7.4% of all the symptoms). Two other categories of complaints were also of a distinctive psychological nature (in contrast to physical complaints), namely stress (41 patients, 9.4% of the total number of symptoms) and low self-confidence and self-concept (13 patients, 3.01% of the total number of symptoms). An overall 5.32% of the responses related to a variety of symptoms, such as strange behaviour, alcohol abuse, antisocial behaviour, and having no control over one's life.

#### **6.2.4 Effect of the illness on work performance**

The patients were asked how the illness affected their work performance. The results were as follows: The highest affected area was a decline in productivity (47.7%), followed by concentration problems (23.47%), and 16.67% said that they could not cope with work at all. Loss of interest constituted 7.58% of the responses and experiencing relationship problems at work accounted for 4.56% of the responses.

### 6.2.5 Feelings about being ill

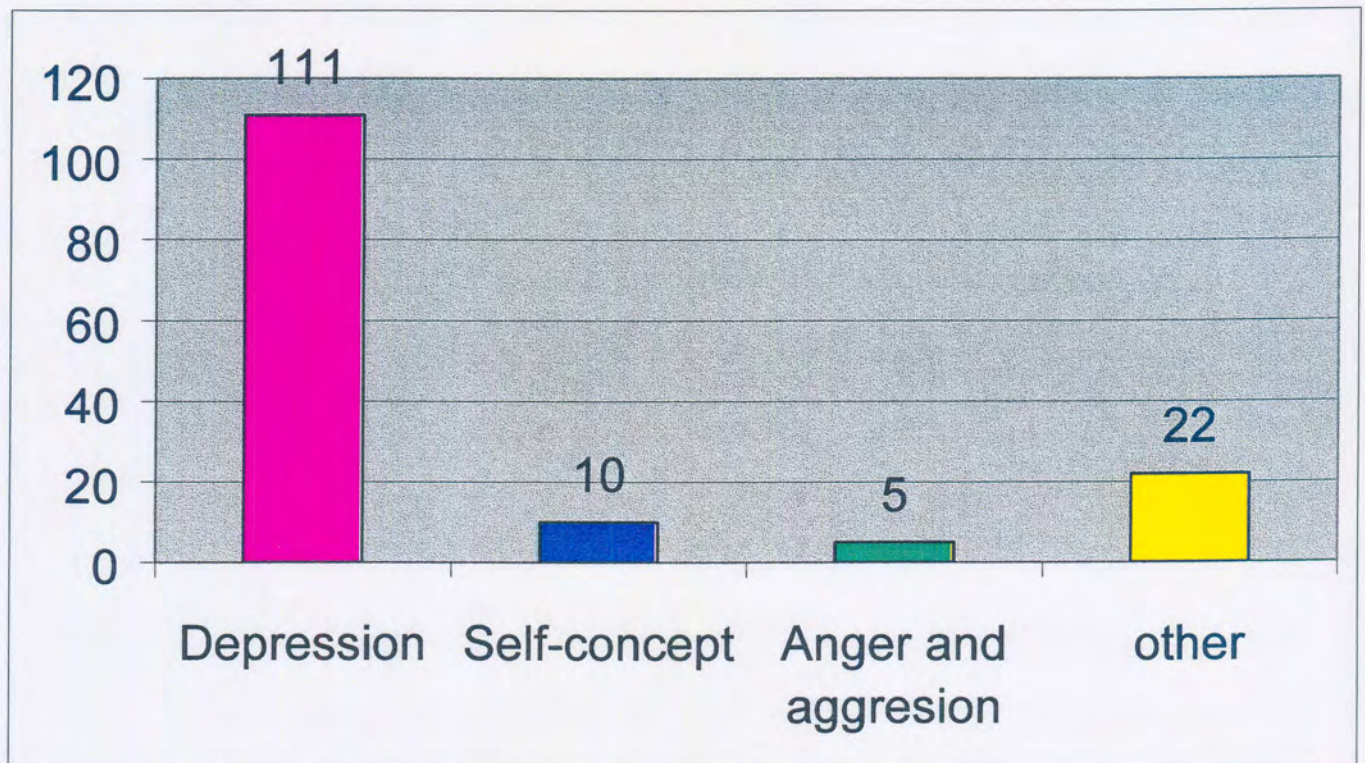
Patients were asked how they felt about being ill. Their responses are tabulated in Table 3 below:

**Table 3:**

Feelings about being ill

CATEGORY	FEELING	FREQUENCY	%
Depression	Depressed and frustrated	84	57.53
	Hopeless	14	9.59
	Guilty	3	2.05
	Disappointed	3	2.05
	Loss of appetite	3	2.05
	Want to withdraw	3	2.05
	Feeling tired	1	0.68
	TOTAL	111	76.00
Self-concept	Lowered self-concept	10	6.85
Anger and aggression	Angry	3	3.05
	Aggressive	1	0.69
	Irritable	1	0.68
	TOTAL	5	4.42
Other	Miserable and pressured	4	2.74
	Terrible and scared	4	2.74
	Bitterness	2	2.37
	Unbelievable	3	2.05
	Optimism	2	1.37
	Mad	1	0.68
	Irresponsible	1	0.69
	Feeling stupid	1	0.69
	TOTAL	22	13.05





**Figure 3:** Feelings about being ill

The frequencies reported in this table refer to the number of times a particular response was given, and not to the number of patients who gave the response. The patients' emotional reactions to being ill were divided into four categories, namely depression, self-concept, aggression and other. Table 3 indicates that 76% of the responses were related to depressed feelings. Eighty-four of the patients specifically mentioned that they felt depressed and frustrated. Lowered self-esteem, anger and frustration occurred only among a few patients.

#### 6.2.6 Feelings about self

The patients were asked how they felt about themselves. Their verbatim responses are summarised in Table 4:

**Table 4:**

Feelings about self

CATEGORY	FEELING	FREQUENCY	%
Positive feelings	Optimism	30	19.48
	Wants to get out of the situation (in an active, positive sense)	3	1.92
	TOTAL	33	21.40
Negative feelings	General negative experience of self	33	21.43
	Depression	16	10.39
	Having negative ideas	11	7.14
	Confused	10	6.49
	Helpless	6	3.90
	Hopeless	5	3.25
	Guilty	4	2.60
	Worried	3	1.95
	Angry and irritable	5	3.25
	Tried to motivate self	4	2.60
	Feeling stupid	2	1.30
	Irresponsible	1	0.65
	Isolated	1	0.65
	It breaks my heart	1	0.65
	Unsafe	1	0.65
TOTAL	103	66.9	
Physical	Physical sensation	3	1.95
	Felling ill	2	1.50
	Feeling weak	1	0.65
	Tired and disappointed	1	0.65
	TOTAL	7	4.75
Other	Neutral	2	1.30
	Feeling of having changed	8	5.20
	TOTAL	10	6.50

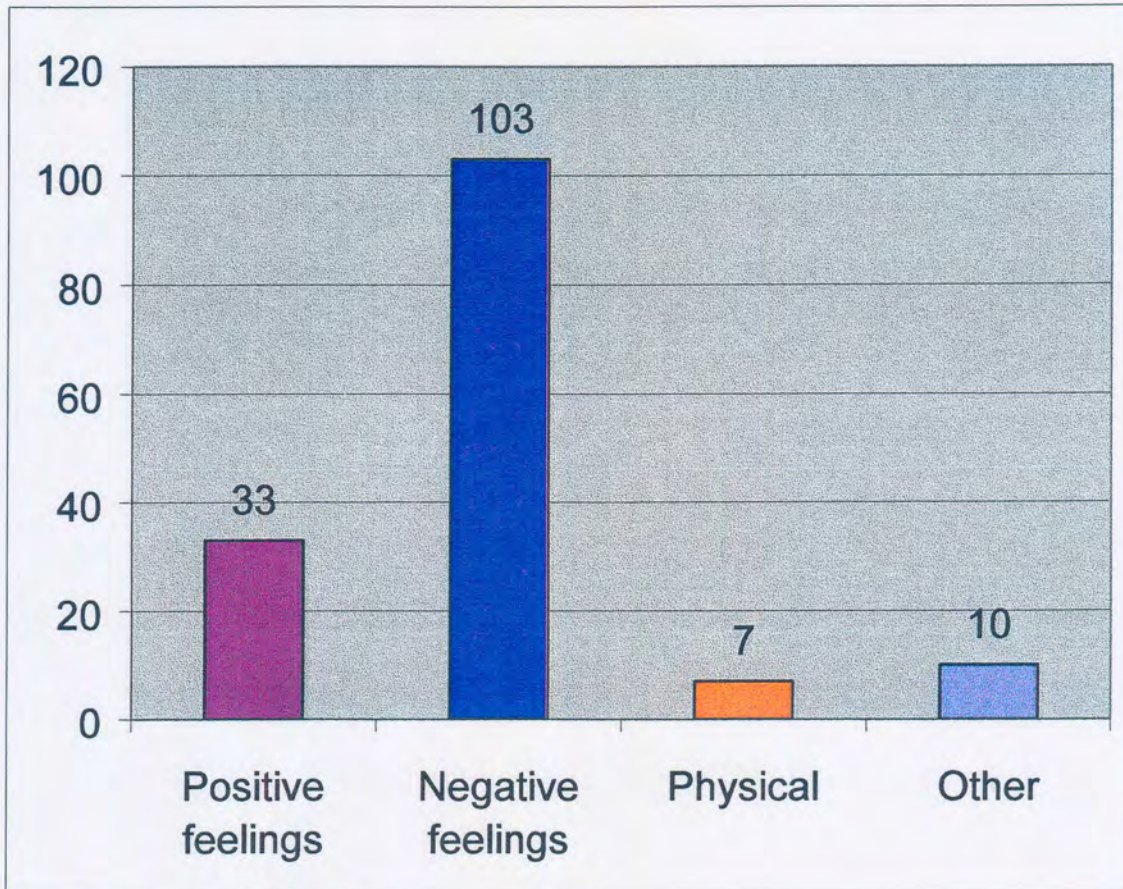


Figure 4: Feeling about self

The responses on feelings about the self were divided into four categories, namely positive feelings, negative feelings, physical and other. The highest reported feelings were negative feelings (66.9%) followed by positive feelings (21.40%). The negative feelings included among others a general negative experience of the self (21.43%), which included such things as not feeling good about the self, seeing oneself as a burden, loss of confidence in the self and feeling like a failure. Other negative feelings included depression (10.39%), having negative ideas (7.14%), and feeling confused (6.49%), with 3.90% of the responses relating to feeling hopeless and helpless. Feelings of anger and irritability constituted 3.25% of the responses, and feeling guilty amounted to 2.60% of the responses.

For the category of other, an overall of 6.50% of the responses was recorded and this mostly related to the feeling of having changed, whereas physical feelings comprised a total of 4.75% of the responses.

### 6.2.7 Physical complaints

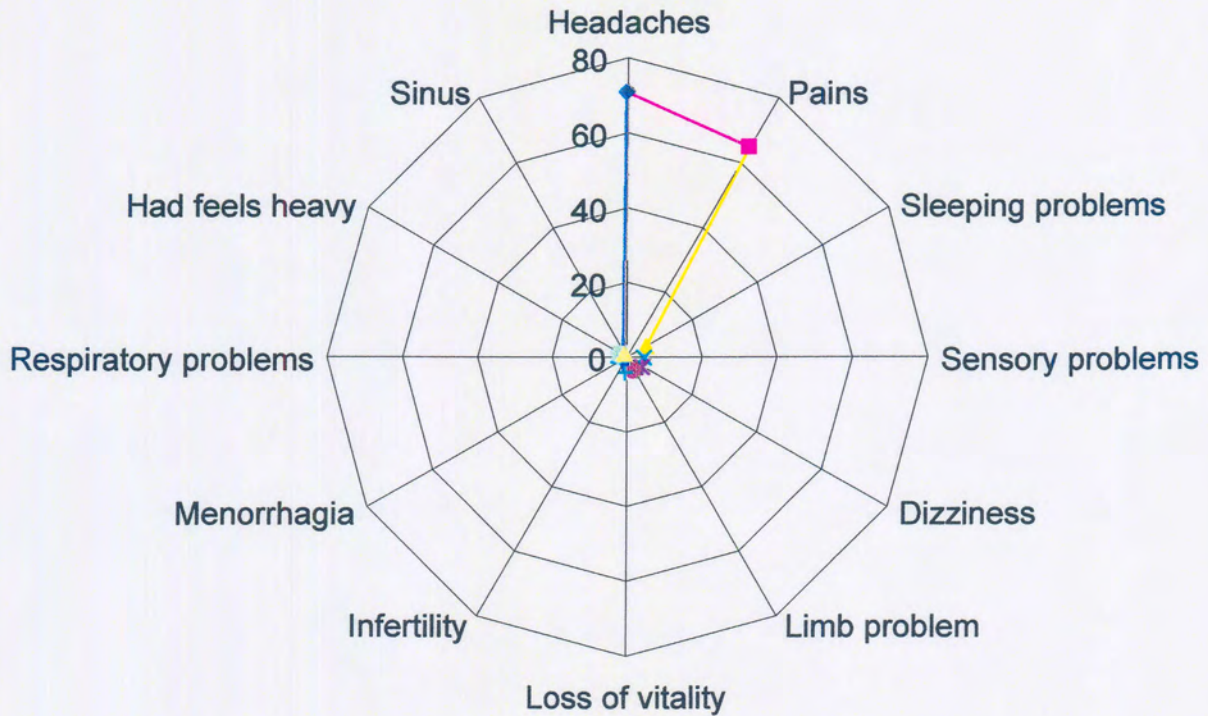
The frequencies reported in this table refer to the number of times a particular response was given, and not to the number of patients who gave the response.

The patients were asked whether they had any physical complaints. Their responses were written down verbatim, and subsequently classified. The results are presented in Table 5. This information differs from that provided in Table 2, where the patients' presenting symptoms as verbalised by them are reflected.

**Table 5:**

Physical complaints

PHYSICAL COMPLAINTS	FREQUENCY	%
Headaches	71	41.28
Pains	65	37.99
Sleeping problems	6	4.59
Sensory problems	5	2.91
Dizziness	5	2.91
Limb problem	4	2.33
Loss of vitality	4	2.33
Infertility	2	1.16
Menorrhagia	2	1.16
Respiratory problems	2	1.16
Head feels heavy	2	1.16
Sinus	1	0.58
<b>TOTAL</b>	<b>169</b>	<b>98.98</b>



**Figure 5:** Physical Complaints

As far as the physical complaints in Table 7 and Figure 5 are concerned, it is clear that the dominant complaint was headaches (41.28%), followed by general pains (37.99%).

### 6.2.8 Method of suicide attempts

Of the 162 patients, 21 reported that they had tried to commit suicide. The methods they used are reflected in Table 6.

**Table 6:**

Methods of suicide attempts

METHOD	FREQUENCY	%
Ingestion of toxic substance	9	42.86
Jumping form a building	4	19.05
Hanged him-/herself	3	14.29
Shot him-/herself	2	9.52
Stabbed him-/herself with knife	2	9.52
Threw him-/herself in front of a moving bus	1	4.76
Total	21	100

Table 6 shows that the most frequently used method for a suicide attempt was ingestion of toxic substances (42.86%), followed by jumping from a building (19.05%) and hanging (14.29%). Other methods used in attempting to commit suicide were shooting and stabbing oneself (9.52% for both) and lastly one patient reported that he threw himself in front of a moving bus.

### 6.2.9 Causes

In addition to verbalising their complaints (presenting symptoms, see paragraph 6.2.3), the patients also verbalised various problems, which were written down verbatim and subsequently coded. These responses were then interpreted as the patients' perceptions regarding the causes of the illness. In addition, they were asked direct questions about what they regarded as the causes of the illness. Inquiries were also made into the stressors the patients experienced, which could shed light on the causes of the illness. Thus, there were three ways of inquiry into the causes of the illness. The results are reported in the following three paragraphs:

### 6.2.9.1 Problems related to the cause of the illness

The frequencies reported in this table refer to the number of times a particular response was given, and not to the number of patients who gave the response. The problems mentioned by the patients are summarised in Table 7.

**Table 7:**

Problems given as the cause of illness

GROUP	PROBLEMS	FREQUENC Y	%
Family	Problems with spouse	62	27.9
	Problems with other family members	40	18.0
	Death of family members	19	8.56
	Illness of family member	7	3.51
	Separation of a family member	2	0.90
	TOTAL	130	58.9
Work	Work-related problems	27	12.1
Financial	Financial problems	16	7.21
Non-family	Problems with non-family members	7	3.15
	Death of a non-family member	7	3.15
	TOTAL	14	6.3



General	Problematic life	7	3.15
	Consulted traditional healer	6	2.70
	Sexual abuse	5	2.25
	Premature death of baby	5	2.25
	Bewitchment	3	1.35
	No friends	3	1.35
	Examinations	3	1.35
	Drug dependency	1	0.45
	Killed somebody	1	0.45
	Pregnancy	1	0.45
	TOTAL	35	15.7

In Table 7 the problems were grouped into family, work, financial, non-family and general matters. Problems with family members were regarded as the most important factor related to the cause of the illness (58,92 %). In this group, problems with a spouse ranked the highest by 27.93%, followed by 18.02% of the responses dealing with problems with other family members. Among other family problems reported, were death of a family member (8.56%) and illness of a family member (3.15%).

The second highest category included various general problems (15.75%). In this category, the highest frequency related to a problematic life (3.15%), followed by 2.70% of the responses dealing with consulting a traditional healer and 2.25% for both sexual abuse and the unexpected, premature death of someone. Bewitchment, no friends and examinations had insignificantly small percentages.

Other reasons for the illness were work-related (12,16%) and financial reasons (7,21%). The work-related problems included, for example, problems with colleagues, not being able to cope with demands at work or the workload, and long working hours. This was followed by 6.3% of the responses that related to problems with non-family members. In this category, general problems and the death of a person outside the family were reported to be related to the illness.





### 6.2.9.2 Causes of the illness

The frequencies reported in this table refer to the number of times a particular response was given, and not to the number of patients who gave the response.

During the interview, the patients were asked what they believed the causes of their illness were. The results are indicated in Table 8.

**Table8:**

#### Causes of illness

CAUSE	FREQUENCY	%
Problems with spouse	41	26.80
Problems with other family members	23	15.03
Death of family member	15	9.80
Cannot tolerate disappointment	13	8.50
Problems with non-family member(s)	12	7.84
Financial problems	11	7.19
Physical problems of self	9	5.88
Suspicion of witchcraft	9	5.88
General relationship problems	5	3.27
Has committed a criminal act	4	2.61
Death of non-family member	3	1.96
Not expressing feelings	3	1.96
Illness of family member	2	2.60
Over-sensitivity	1	0.65
TOTAL	151	99.97

The most frequently cited cause for the illness was related to problems with a spouse (26.80%), followed by 15.03% of the responses that related to problems with other family members (excluding the spouse), and 9.80% of the responses that related the illness to the death of a family member. The fourth most frequent cause was that the person could not tolerate disappointment (8.50%), followed by problems with non-family members (7.84%) and financial problems (7.19%). Both physical problems and being suspicious of witchcraft constituted 5.88% of the responses, followed by 3.27% references to general relationship problems and 2.61% for both illness of a family member and having committed a criminal act. The general impression gained from this is that the main problem areas were of an interpersonal nature.

### **6.2.9.3 Stressors**

The frequencies reported in this table refer to the number of times a particular response was given, and not to the number of patients who gave the response. In addition to the causes reported in Table 8, the patients were also asked what stressors they experienced. These results are reflected in Table 9.

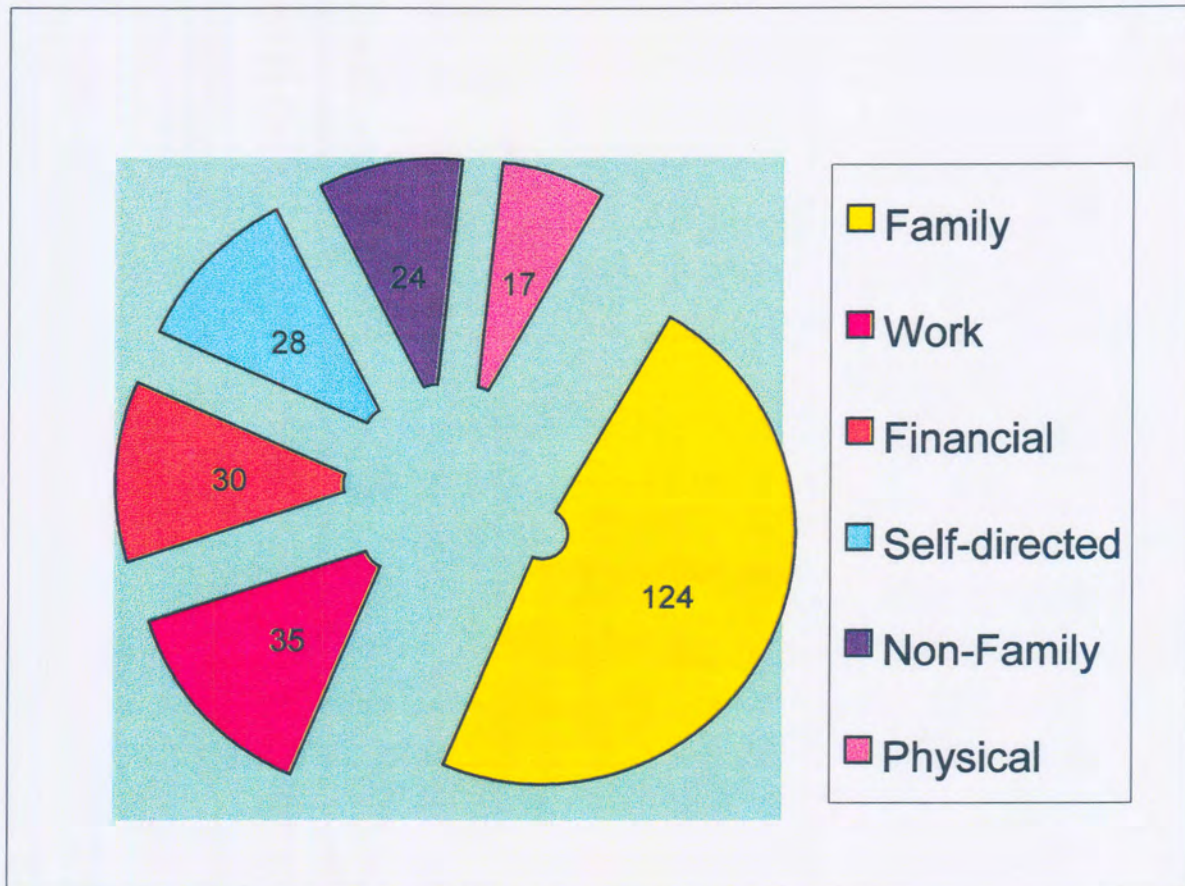


**Table9:**

**Stressors**

GROUP	STRESSORS	FREQUENCY	%
Family	Problems with spouse	55	20.9
	Relationship problem with other family members	29	11.0
	Death of a family member	17	6.49
	General family problems	12	4.58
	Illness of a family member	7	2.67
	Separation of family	2	0.76
	Divorce	1	0.38
	Conflict about a family house	1	0.38
	Telling the truth about an extra-marital affair	1	0.38
	TOTAL	124	46.7
Work	Work-related problems	34	13.9
	Working long hours	1	0.38
	TOTAL	35	14.3
Financial	Financial stress	26	9.92
	Unemployment	4	1.53
	TOTAL	30	11.4
Self-directed	Struggling with something you cannot deal with	9	3.64
	Poor self-image	6	3.29
	Loneliness	5	1.91
	Lacking motivation	3	1.05
	Feeling guilty	2	0.76
	Cannot talk to someone	2	0.76
	TOTAL	28	11.4
Non-family	General relationship problems	21	8.02
	Death of non family member	3	1.15
	TOTAL	24	9.17
Physical	Physical illness of self	12	4.58

Allergies	1	0.38
Sex problems	4	1.53
Lack of sleep (associated with excessive worries)	2	0.76
TOTAL	17	7.25



**Figure 6: Stressors**

With regard to stressors in the family, the most frequent stressor was problems with a spouse (20.99%). This was followed by relationship problems with other family members (11.07%). Death of a family member ranked third with 6.49%, followed by general family problems (4.58%). Other stressors mentioned with regard to the family, included illness of family members, separation of family and divorce.



A fairly large number of patients (35) mentioned work-related problems, and this constituted 13.98% of all the stressors that were mentioned. Thirty patients (9.92% of the responses) mentioned financial stress.

Issues related to the experience of the self formed 11.41% of the responses and were mentioned by 28 patients. This included problems such as struggling with something one cannot deal with, poor self-image, and feelings of loneliness and lack of motivation. This category of stressors had a depressive connotation.

The non-family group of stressors formed 9.17% of the responses. In this group, the highest reported stressor was general relationship problems (8.02%).

The last group involved physical stressors with a total percentage of 7.25% of the responses. In this category, physical illness was found to be the highest stressor (4.58%).

## 6.3 THE BECK DEPRESSION INVENTORY

### 6.3.1 Factor analysis

A Maximum Likelihood Factor Analysis with oblique (direct quartimin) rotation was used to examine the factor structure of the BDI-II. This resulted in six factors having Eigenvalues greater than one. The six-factor solution, however, did not render interpretable factors. The alpha coefficients for the six factors were also unacceptably low, and ranged between 0.53 and 0.65, and for two of the factors, the alpha was undefined, because only one variable was included in the factor.

Various other factor solutions were computed and with two factors, the alpha coefficients were 0.83 and 0.71, which was closer to the overall alpha of 0.87 for the total scale. The correlation between the two factors was  $r=0.50$ . Although this solution rendered better reliabilities, the two factors did not have a clear meaning.

The 21 BDI items were then constrained to load on a single factor, to examine whether a single factor could account for all the depressive symptoms. The analysis for a one-factor solution showed that all the items had factor loading larger than or equal to 0.30 and an overall alpha coefficient of 0.87. This one factor explained 24.85% of the variance of the scale. The factor loading for a one-factor solution appears in Table 10.

**Table 10:**

Factor loading on the BDI-II for a one-factor solution

ITEM NUMBERS	CONTENT OF EACH ITEM	FACTOR LOADING
12	Loss of interest	0.66
2	Pessimism	0.60
14	Worthlessness	0.58
3	Past failure	0.57
6	Punishment feelings	0.55
18	Changes in appetite	0.54
17	Irritability	0.54
20	Tiredness or fatigue	0.54
5	Guilty feelings	0.53
15	Loss of energy	0.51
1	Sadness	0.51
7	Self-dislike	0.49
13	Indecisiveness	0.49
9	Suicidal thoughts or wishes	0.48
11	Agitation	0.45
8	Self-criticalness	0.44
4	Loss of pleasure	0.41
19	Concentration difficulty	0.40
21	Loss of interest in sex	0.39
16	Changes in sleep pattern	0.38
10	Crying	0.30



### 6.3.2 Item analysis

For the purpose of item analysis, the items of the BDI-II were coded on a 4-point scale, ranging from 1 to 4. The descriptive statistics for each item appear in Table 11.

**Table 11:**

The BDI-II item analysis

ITEM NUMBER	ITEM MEAN	ITEM VARIANCE	ITEM-SCALE CORRELATION	NUMBER OF RESPONDENTS
1	2.772	1.226	.52	162
2	2.513	1.462	.59	160
3	2.284	1.253	.58	162
4	2.568	0.739	.46	162
5	2.154	1.069	.55	162
6	2.839	1.589	.59	161
7	2.174	0.864	.53	161
8	2.375	1.422	.50	160
9	1.870	1.162	.50	162
10	2.752	1.143	.38	161
11	2.735	1.207	.52	162
12	2.469	1.076	.67	162
13	2.611	0.880	.53	162
14	2.062	0.978	.61	161
15	2.735	0.788	.54	162
16	2.895	1.032	.43	162
17	2.574	0.961	.58	162
18	2.580	0.984	.58	162
19	2.360	0.889	.45	161
20	2.741	0.908	.54	162
21	2.421	1.212	.46	159



The item-total correlation ranged between 0.38 and 0.67, which is regarded as satisfactory in terms of the criteria described in paragraph 5.3. Since the subjects formed a relatively homogeneous group of patients who had been diagnosed as depressed, one would expect that the mean scores on the individual items would tend to be high, and that the item variances would tend to be low. This was the case for most of the items. All the items had a mean score greater than 2, except for item 9 (suicidal thoughts and wishes). Items 2 (pessimism) and 8 (self-criticalness) had the largest variances of all the items, but their mean scores were comparable to that of most of the other variables.

### **6.3.3 Mean scores and categories of severity**

The mean score on the BDI-II for the total sample was 31.34 out of a total possible score of 63.

### **6.3.4 Gender and age**

A Mann-Whitney U-test was performed to compare the scores of males and females, but no significant gender differences were found. There was also no significant correlation between age and BDI scores. Thus, given that the subjects had all been diagnosed as depressed, their mean score was relatively low, but the BDI-II did not appear to function differently in terms of gender and age.

## **6.4 THE MMPI-2**

### **6.4.1 Impression of the MMPI-2**

The subjects were asked various questions regarding their experience of the MMPI. The results are reported in the following paragraphs:

#### 6.4.1.1 Difficulty

The patients were asked whether they experienced difficulties answering the MMPI and the reasons for this. Of the patients, 48 (29.6%) said it was difficult. Of these 48 patients, 28 gave the reasons reflected in Table 12. Another group of 45 patients said it was realistic, in the sense that it was related to what is experienced in everyday life. Another four patients said that it revived their mind.

**Table 12:**

Reasons for finding the MMPI-2 difficult

IMPRESSIONS	FREQUENCY	%
Confusing	15	53.57
Complex	6	21.43
Too long	4	14.29
Could not concentrate	3	10.71
TOTAL	28	100

A large percentage of those patients who responded to this item said that they did not find it difficult. However, in the cases where it was found to be difficult, the main reason given was that the test was confusing.

#### 6.4.1.2 Tricky

The patients were asked if they experienced the MMPI as tricky and to substantiate their answer. A large number (102, i.e. 63%) answered that it was tricky. The results pertaining to 83 patients, who elaborated on their response, are presented in Table 13.

**Table 13:**

Reasons for finding the MMPI-2 tricky

IMPRESSION	FREQUENCY	%
Repetitions	34	40.96
Language	15	18.07
Contradictions	7	8.43
More than one option was possible	5	6.02
Negative questions	4	4.82
Reading one's mind	4	4.82
Other	14	16.87
TOTAL	83	100

Nearly 41% of the patients, who gave reasons for their answer, felt that the repetitions in the questions were to "catch them out". Nearly 18% felt that the way in which the questions are formulated (i.e., the use of words such as sometimes, usually, most and at times) was tricky.

#### 6.4.1.3 Confusing

When the patients were asked if they experienced the MMPI as confusing, 66 (40.7%) answered in the affirmative. The reasons given for experiencing it as confusing are reflected in Table 14.

**Table 14:**

Reasons for finding the MMPI-2 confusing

IMPRESSIONS	FREQUENCY	%
Repetitions	16	24.24
Unfamiliar with questions or the test	9	13.64
More than one option possible	6	9.09
Purpose of question not clear	6	9.09
Contradictions	5	7.58
Too long	4	6.06
Not sure whether to answer true or false	2	3.03
Not sure whether it refers to the present or the past	1	1.52
Felt drowsy	1	1.52
Other	16	24.24
<b>TOTAL</b>	<b>66</b>	<b>100</b>

Of those patients who said that the test was confusing, nearly a quarter said it was because of the repetitions in the test. Unfamiliarity with the test and the items in the test also caused confusion for nearly 14% of the patients. It seems as if the patients experienced the test as ambiguous, since 25.76% either said that the purpose of the test was not clear, that there were contradictions in the items, or that it was not always possible to select only one option.

#### **6.4.1.4 Boring**

Of the patients who were asked if they experienced the MMPI as boring, 36 (22.2%) answered yes and 21 of them gave reasons for their responses. Their explanations for their responses are reflected in Table 15. Nine (42.86%) of those patients who gave reasons for their answer, said it was too long and about one third also felt that the repetition of items created boredom. There were also patients who made positive comments; namely, that it was interesting and fascinating (64.60%) and two patients (3.13%) said it was "impressive".

**Table 15:**

Reasons for finding the MMPI-2 boring

IMPRESSIONS	FREQUENCY	%
Length	9	42.86
Repetition of questions	7	33.33
Could not concentrate	3	14.29
Questions not meant for his age	2	9.52
TOTAL	21	100

#### 6.4.1.5 Stressful

The patients were asked if they experienced the MMPI as stressful and 91 (56.2%) answered in the affirmative. The reasons given by 71 patients, who substantiated their answer, are reflected in Table 16.

**Table 16:**

Reasons for finding the MMPI-2 stressful

IMPRESSIONS	FREQUENCY	%
Too long	31	43.66
Needs you to think before answering	21	29.58
Felt tired	7	9.86
Language difficulties	5	7.04
True/false categories	3	4.23
Other	4	5.63
TOTAL	71	100

About 44% of the patients, who substantiated their answers, felt that the length of the test was stressful. Nearly 30% felt that they had to exert mental effort to be able to answer the questions. About 10% experienced the test as tiring.



#### 6.4.1.6 Helpful

When asked if the test was helpful, 132 (81.5%) said it did indeed help them. The reasons given by 79 patients, who elaborated on their answers, are reflected in Table 17.

**Table 17:**

Reasons for finding the MMPI-2 helpful

IMPRESSIONS	FREQUENCY	%
Promotes self-understanding	47	59.49
Tests mind and speed	12	15.19
Expresses one's feelings	8	10.13
Motivating	7	8.86
Will help to solve problems	5	6.33
TOTAL	79	100

About 60% of the patients indicated that they felt that the MMPI promoted their self-understanding. Nearly 15% said that the test assessed their minds and speed, which implies that it assesses their intelligence. About 10% felt that completing the test gave them the opportunity to express their feelings.

#### 6.4.1.7 Suggestions

The patients were asked whether they could make any suggestions regarding the MMPI; 89 patients responded to this item, and their comments are summarised in Table 18.

**Table 18:**

Suggestions

SUGGESTIONS	FREQUENC Y	%
To be shortened	31	34.8 3
Continue to use it	21	23.6 0
Remove repeated questions	16	17.9 8
Divide administration into two sessions	9	10.1 1
Do not mix true and false questions	5	5.62
Language too difficult	4	4.49
Vagueness of the questions	3	3.37
TOTAL	89	100

Thirty-one patients suggested that the MMPI should be shortened and nearly one quarter of them suggested that its use should be continued. About 18% suggested that the repetitions should be removed, and about 10% suggested that the test had to be administered in two sessions.

#### **6.4.1.8 Conclusion**

In general, the patients' view about the MMPI was positive. A percentage of 64% said that the MMPI is an interesting and fascinating instrument. Fifty-six percent of the subjects felt that the MMPI was realistic. About 60% felt that doing the test made one feel better about oneself. There were other positive reports too, namely that the MMPI is a realistic instrument and a motivational tool, that it tests the mind, helps one to express one's feelings, and helps to solve problems.

On the other side, 102 patients (63%) found the test to be tricky (particularly because of the repetitions and language), 91 patients (56.2%) found it stressful (particularly because of its length), and 66 patients (40.7%) found the test confusing (mainly because of the repetitions and since they were unfamiliar with the test). Only 36 patients (22.2%) found it boring (the main reason being its length and the repetition of items), and 48 (29.6%) said it was difficult, mainly because they found it confusing.

#### **6.4.2 Diagnoses according to the MMPI-2**

The computer program that was used to analyse the MMPI automatically generates clinical diagnoses that are derived from valid profiles of the MMPI. More than one diagnosis can be given for a particular patient. In the present study, the first three diagnoses for each patient were coded. These diagnoses are reflected in Table 19. Table 20 reflects the first diagnoses for the patients on the MMPI.





**Table19:**

Total number of clinical diagnoses according to the MMPI-2

CODE	DIAGNOSIS	FREQUENCY	%
6	Schizophrenia	34	20.99
12	Personality disorder	30	18.52
5	Substance abuse	17	10.49
7	Somatisation	16	9.88
8	Paranoid disorder	13	8.03
10	Anxiety disorder	13	8.03
14	Dysthymia	13	8.03
13	Affective disorder	9	5.56
17	Severe disturbance	5	3.09
1	No specific diagnosis	3	1.85
16	Major affective disorder	3	1.85
11	Compulsive personality disorder	2	1.23
15	Bipolar disorder	2	1.23
4	Schizoid personality disorder	1	0.62
20	Addictive disorder	1	0.62
	TOTAL	162	100

It is significant that the diagnoses most frequently made on the MMPI-2, were Schizophrenia (34 instances) and Personality Disorders (30 instances), whereas mood-related disorders only amounted to 27 instances, as follows: Dysthymia (13), Affective Disorder (9), Major Affective Disorder (3) and Bipolar Disorder (2).

**Table 20:**

First clinical diagnoses according to the MMPI-2

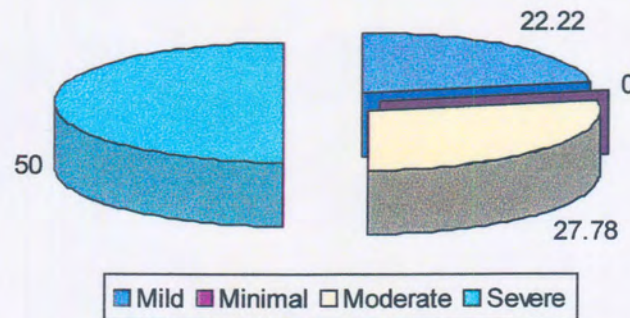
CODE	DIAGNOSIS	FREQUENCY	%
6	Schizophrenia	27	16.9
12	Personality disorder	16	10.0
7	Somatisation	12	7.5
14	Dysthymia	11	6.9
10	Anxiety disorder	5	3.1
13	Affective disorder	4	2.5
17	Severe disturbance	3	1.9
5	Substance abuse	3	1.9
15	Bipolar disorder	2	1.3
1	No specific diagnosis	2	1.3
16	Major affective disorder	1	0.6
8	Paranoid disorder	1	0.6
	TOTAL	87	54.5

As was the case with the total number of diagnoses, the most frequent first diagnoses were again Schizophrenia (27 patients) and Personality Disorder (16 patients). Eleven patients were diagnosed with Dysthymia and a further seven were also given Mood-related diagnoses (Affective disorder, Bipolar disorder and Major affective disorder).

To determine whether there was a gender bias in the diagnoses generated by the MMPI, adequate cell sizes had to be ensured. With this in mind, the relevant diagnoses were categorised into the following three categories, using the first diagnosis generated for each patient:

- (a) Schizophrenia
- (b) Mood-related Disorders (Affective disorder, Dysthymia, Bipolar disorder, and Major affective disorder)

- (c) Personality Disorders (Personality disorder, Schizoid personality disorder and Compulsive personality disorder).



**Figure 7:** BDI-11 categories of severity for MMPI diagnoses of mood-related disorder.

These categories were then used to compare males and females, but there were no significant differences between men and women ( $\chi^2 = 4.27, p=0.12$ ). It thus appears that there is not a gender bias in the diagnoses made by the MMPI.

For the valid protocols, the mood-related disorders (Affective disorder, Dysthymia, Bipolar disorder, and Major affective disorder) diagnosed by the MMPI and given as first diagnoses were compared with the DBI categories of severity (see paragraph 4.4.2). Figure 7 shows that 50% of the Mood-related Disorders were classified as severely depressed by the BDI, and approximately one-quarter were respectively classified as either mildly or moderately depressed. It must, however, be borne in mind that only 18 patients with valid protocols were diagnosed with Mood-related Disorders.

### **6.4.3 Analyses of the Validity Scales, Content Scales and Critical Item Scales of the MMPI-2**

Descriptive statistics were calculated for the T-scores on the various scales of the MMPI-2. Where relevant, the Mann-Whitney U-test was used to compare the scores of males and females, and the correlation between the scales and age was calculated. The results are given in the following paragraphs:

#### **6.4.3.1 Validity scales**

Table 21 reflects the descriptive statistics for the various validity scales of the MMPI-2 for the total sample, as well as for the valid and invalid protocols. The Mann-Whitney U-test was used to compare the means of the valid and invalid protocols. There were significant differences between the scores of valid and invalid protocols, except with regard to the L-scale. The scores for the invalid protocols were higher than those for the valid protocols on VRIN, TRIN, F and F (B). The scores for the valid protocols were higher than those for the invalid protocols on K and Cs. The mean for the valid protocols was also higher than the mean for invalid protocols for L, but the difference was not statistically significant.

**Table 21: Descriptive statistics for the Validity Scales of the MMPI-2**

SCALE	MEAN <sup>a</sup> FOR TOTAL SAMPLE	STANDARD DEVIATION FOR TOTAL SAMPLE	MEAN <sup>a</sup> FOR VALID PROTOCOLS	STANDARD DEVIATION FOR VALID PROTOCOLS	MEAN <sup>a</sup> FOR INVALID PROTOCOLS	STANDARD DEVIATION FOR INVALID PROTOCOLS	MANN- WHITNEY U-TEST
VRIN	69.96	14.42	64.89	10.83	76.15	15.83	1896.5 <sup>b</sup>
TRIN	70.32	15.20	65.37	11.04	76.35	17.27	2038.0 <sup>b</sup>
L	58.67	11.23	60.10	11.08	56.94	11.25	3770.0
F	93.57	20.97	80.74	11.53	109.21	16.53	746.5 <sup>b</sup>
K	43.52	11.46	45.30	10.61	41.35	12.12	4274.5 <sup>b</sup>
F (B)	92.47	20.76	81.65	67.97	105.66	15.74	1037.0 <sup>b</sup>
Cs	41.69	7.9	42.79	7.27	40.34	8.46	4002.5 <sup>b</sup>

<sup>a</sup> T-scores

<sup>b</sup>  $p < 0.05$

The scores of the men and women on the validity scales were compared by means of the Mann-Whitney U-test. There were no significant differences between men and women with regard to all the validity scales. Pearson product-moment correlation was calculated between age and the validity scales. The correlations varied between -0.03 and 0.10, and none of these correlations were significant.

The number of patients who obtained scores higher than the cut-off scores for the various Validity scales, is reflected in Table 22. It was especially on the L, F, F(B) and Cs scales that large numbers of patients obtained scores higher than the cut-off scores.

**Table 22:**

Frequencies above cut-off scores for validity scales

SCALE	FREQUENCY
VRIN	12
TRIN	17
L	67
F	87
K	9
F (B)	44
Cs	69

#### 6.4.3.2 Content Scales

**Table23:**

Descriptive statistics for the Content Scales of the MMPI-2 (total sample)

SCALE	MEAN*	STANDARD DEVIATION
Bizarre Mentation (BIZ)	79.26	15.55
Health concerns (HEA)	71.59	10.73
Depression (DEP)	70.99	10.82
Anxiety (ANX)	70.56	10.48
Work interference (WRK)	70.44	18.64
Fears (FRS)	69.07	13.64
Negative treatment indicators (TRT)	65.91	12.20
Family problems (FAM)	65.56	12.22
Cynicism (CYN)	64.77	9.85
Obsessiveness (OBS)	62.56	12.25
Low self-esteem (LSE)	62.44	10.79
Anti-social practices (ASP)	61.21	9.30
Type A (TPA)	61.18	12.34
Anger (ANG)	58.62	10.81



Social discomfort (SOD)	55.88	9.95
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\* T-scores

The patients scored relatively high on the following scales: Bizarre Mentation (BIZ), Health concerns (HEA), Depression (DEP), Anxiety (ANX), Work interference (WRK) and Fears (FRS).

The following Content Scales are of specific relevance for the present study: Health concerns, Depression, Anxiety and Family problems. The valid and invalid protocols were compared on these scales, and the results appear in Table 24. The scores for all these scales were higher for invalid protocols than for valid protocols, and the difference between the means was statistically significant in all instances, except for Anxiety.

**Table 24:**

Mean scores on valid and invalid protocols: Content Scales

SCALE	MEAN <sup>a</sup> FOR VALID PROTOCOLS	STANDARD DEVIATION FOR VALID PROTOCOLS	MEAN <sup>a</sup> FOR INVALID PROTOCOLS	STANDARD DEVIATION FOR INVALID PROTOCOLS	MANN- WHITNEY U-TEST
Health concerns (HEA)	70.03	9.97	73.50	11.38	2723.0 <sup>b</sup>
Depression (DEP)	69.04	9.56	73.36	11.89	2423.0 <sup>b</sup>
Anxiety (ANX)	69.49	10.01	71.86	10.95	2493.0
Family problems (FAM)	62.42	11.14	69.38	12.46	2045.5 <sup>b</sup>

<sup>a</sup> T-scores

<sup>b</sup>  $p < 0.05$

The scores of males and females on the Content Scales reflected in Table 24 were compared for valid protocols. There were no significant differences, except with regard to Depression, where males obtained higher scores (Mean = 71.97) than females (Mean = 68.30) (Mann-Whitney U-test = 1108.5,  $p < 0.05$ ). However, the difference between the means was so small that it is unlikely to be of any practical importance.

### 6.4.3.3 Critical Item Scales

The following Critical Item Scales are of relevance for the present study. Table 25 contains descriptive statistics for the scores for the total sample on the following Critical Item Scales that are of relevant for the present study: Acute Anxiety State, Depressed Suicidal Ideation, Family Conflicts and Somatic Symptoms.

**Table 25:**

Descriptive statistics for Critical Item Scores on the MMPI-2

MMPI SCALES	MEAN	STANDARD DEVIATION	MAXIMUM POSSIBLE SCORE
Acute Anxiety State	10.07	3.00	17
Depressed Suicidal Ideation	10.8	4.00	21
Family Conflicts	2.01	1.02	4
Somatic Symptoms	11.25	3.97	23

In comparison to the maximum possible score for the relevant scale, the subjects obtained the highest average score for Acute Anxiety State, followed by Depressed Suicidal Ideation. The lowest score was obtained for Somatic Symptoms.

On the valid scales, there were no differences between males and females with regard to Acute Anxiety State, Depressed Suicidal Ideation and Family Conflicts. With regard to Somatic Symptoms, women tended to obtain higher scores (mean = 11.20) than males (mean = 9.38) (Mann-Whitney U-test = 631.5,  $p < 0.05$ ). There were weak positive correlations between age and Acute Anxiety State ( $r = 0.25$ ,  $p < 0.05$ ) and between age and Somatic Symptoms ( $r = 0.23$ ,  $p < 0.05$ ). However, these correlations were very low, and thus unlikely to be of any practical significance. Age did not correlate significantly with Depressed Suicidal Ideation and Family Conflicts.



#### 6.4.4 Correlations between Content and Critical Item Scales

Table 26 reflects the correlation between Content and Critical Item Scales relevant to this study (only valid protocols are included). The correlation between the equivalent Content and Critical Item Scales are relatively high and statistically significant.

**Table 26:**

Correlation between Content Scales and Critical Item Scales

	Anxiety	Depression	Family problems	Health concerns
Acute anxiety state	0.74 <sup>a</sup>	0.48 <sup>a</sup>	0.47 <sup>a</sup>	0.61 <sup>a</sup>
Depressed suicidal ideation	0.53 <sup>a</sup>	0.82 <sup>a</sup>	0.37 <sup>a</sup>	0.37 <sup>a</sup>
Family conflicts	0.24 <sup>b</sup>	0.33 <sup>a</sup>	0.50 <sup>a</sup>	0.04
Somatic symptoms	0.54 <sup>a</sup>	0.21 <sup>b</sup>	0.11	0.97 <sup>a</sup>

<sup>a</sup> p < 0.001

<sup>b</sup> p < 0.05

#### 6.4.5 Item analyses of Critical Item Scales

Item analyses were done on the following Critical Item Scales: Acute Anxiety State (Koss-Butcher Critical Items), Depressed Suicidal Ideation (Koss-Butcher Critical Items), Family Conflict (Lachar-Wrobel Critical Items) and Somatic Symptoms (Lachar-Wrobel Critical Items). For the purpose of item analysis, a coding range of 1 (not endorsing the item) and 2 (endorsing the item) was used. The descriptive statistics for each item appear in the Tables below.

**Table 27:**

Item analysis of Acute Anxiety State (Koss-Butcher Critical Items)

ORIGINAL ITEM NUMBER	ITEM MEAN	ITEM VARIANC E	ITEM-SCALE CORRELATION	NUMBER OF RESPONDENTS
2	1.457	0.248	.32	162
3	1.789	0.167	.57	161
5	1.735	0.195	.26	162
10	1.673	0.220	.23	162
15	1.685	0.216	.42	162
28	1.525	0.249	.35	162
39	1.667	0.222	.51	162
59	1.488	0.250	.39	162
140	1.716	0.203	.44	162
172	1.469	0.249	.43	162
208	1.543	0.248	.03	162
218	1.660	0.224	.48	162
223	1.519	0.250	.38	162
301	1.630	0.233	.36	162
444	1.302	0.211	.22	162
463	1.593	0.241	.49	162
469	1.605	0.239	.41	162

All the items had acceptable item-total correlations, except item 208, which had an item-total correlation of 0.03, with a mean of 1.543, and item variance of 0.248. The wording of item number 208 reads as follows: *I hardly ever notice my heart pounding and I am seldom short of breath.* The reliability coefficient for this scale was 0.609

**Table 28:**

Item analysis of Depressed Suicidal Ideation (Koss-Butcher Critical Items)

ORIGINAL ITEM NUMBER	ITEM MEAN	ITEM VARIANCE	ITEM-SCALE CORRELATION	NUMBER OF RESPONDENTS
9	1.753	0.186	.32	162
38	1.728	0.198	.30	162
65	1.525	0.249	.48	162
71	1.623	0.235	.09	162
75	1.327	0.220	.33	162
92	1.284	0.203	.48	162
95	1.710	0.206	.45	162
130	1.691	0.213	.52	162
146	1.586	0.243	.40	162
215	1.414	0.243	.22	162
233	1.512	0.250	.34	162
273	1.648	0.228	.52	162
303	1.426	0.245	.55	162
388	1.531	0.249	.04	162
411	1.525	0.249	.54	162
454	1.475	0.249	.51	162
485	1.556	0.247	.47	162
506	1.383	0.236	.59	162
518	1.475	0.249	.35	162
520	1.346	0.226	.58	162
524	1.284	0.203	.52	162

All the items had acceptable item-total correlations, except for Items 71 and 388. Item 71 had a mean of 1.623, item variance of 0.235 and item-scale correlation of 0.09. The wording of Item 71 reads as follows: *These days I find it hard not to give up hope of amounting to something.* Item 388 had a mean of 1.531, item variance of 0.249 and

0.249 and item-scale correlation of 0.04. The wording of Item 388 reads as follows:

*I very seldom have spells of the blues.*

**Table 29:**

Item analysis of Family Conflict (Lachar-Wrobel Critical Items)

ORIGINAL ITEM NUMBER	ITEM MEAN	ITEM VARIAN CE	ITEM-SCALE CORRELATION	NUMBER OF RESPONDENTS
21	1.728	0.198	.55	162
83	1.364	0.232	.47	162
125	1.549	0.248	.61	162
288	1.364	0.232	.51	162

On the Family Conflict Scale, all the items had satisfactory item-total correlations. The reliability coefficient was 0.172. The reason for the low reliability is probably that the scale consists of only four items.

**Table 30:**

Item analysis of Somatic Symptoms (Lachar-Wrobel Critical Items)

ORIGINAL ITEM NUMBER	ITEM MEAN	ITEM VARIANCE	ITEM-SCALE CORRELATION	NUMBER OF RESPONDENTS
18	1.278	0.201	.45	162
28	1.512	0.250	.34	162
33	1.309	0.213	.08	162
40	1.648	0.228	.49	162
44	1.605	0.239	.47	162
47	1.716	0.203	.42	162
53	1.691	0.213	.48	162
57	1.537	0.249	.21	162
59	1.481	0.250	.42	162
101	1.630	0.233	.52	162
111	1.481	0.250	.55	162
142	1.296	0.209	.35	162
159	1.327	0.220	.30	162
164	1.580	0.244	.23	162
175	1.568	0.245	.51	162
176	1.395	0.239	.21	162
182	1.432	0.245	.36	162
224	1.438	0.246	.39	162
229	1.556	0.247	.38	162
247	1.358	0.230	.21	162
255	1.420	0.244	.28	162
295	1.321	0.218	.26	162
464	1.667	0.222	.31	162

All the items had satisfactory item-total correlation, except for Item 33. The item-total correlation for Item 33 was 0.08, the mean 1.309 and the variance 0.213. The wording of Item 33 is: *I seldom worry about my health.*

## **6.5 THE RORSCHACH INKBLLOT TEST**

### **6.5.1 The Depression Index (DEPI)**

A patient is positively identified as being depressed if five or more conditions from the Depression Index (DEPI) are true. In this study, only 15 (9.26%) of the patients met the criterion of the presence of at least five of the indicators. A large number of patients (90.74%) did not meet this criterion and since they had independently been diagnosed as depressed, it appears that the DEPI is inclined to render false negatives.

The mean score on the DEPI for the total sample, was 3.43 ( $s=0.76$ ), with a total possible score of 7. A Mann-Whitney U-test was done to examine gender differences, but revealed no significant differences between the mean scores of men and women on the DEPI. There was also no significant correlation between age and the DEPI score.

The frequencies of the presence of the various indicators of the DEPI, are given in Table 31.

**Table 31:**

Frequencies of the presence of Depression Index indicators

	PRESENT	NOT PRESENT
$(FV + VF + V > 0)$ OR $(FD > 2)$	47 (29.00%)	115 (71.00%)
$(\text{Col-Shading Blends} > 0)$ OR $(S > 2)$	11 (6.8%)	151 (93.2%)
$(3r = (2) / R > .44$ AND $Fr + rF = 0)$ OR $(3r + (2) / R < .33)$	155 (95.7%)	7 (4.3%)
$(Afr < .46)$ OR $(\text{Blends} < 4)$	161 (99.4%)	1 (0.60%)
$(\text{Sum Shading} > FM + m)$ OR $(\text{Sum } C' > 3)$	13 (8.00%)	149 (92.00%)
$(MOR > 2)$ OR $(2xAB + Art + Ay > 3)$	7 (4.30%)	155 (95.70%)
$(COP < 2)$ OR $([Bt + 2xCI + Ge + Ls + 2xNa] / R > .24)$	161 (99.40%)	1 (0.60%)

The high frequencies of the following indicators on the DEPI are noteworthy:

- (a)  $[3r + (2) / R] > .44$  AND  $Fr + rF = 0$  OR  $3r + (2) / R < .33$
- (b)  $(Afr < .46)$  OR  $(\text{Blends} < 4)$
- (c)  $(COP < 2)$  OR  $([Bt + 2xCI + Ge + Ls + 2xNa] / R > .24)$

The following indicators had low frequencies of occurrence:

- (a)  $(FV + VF + V > 0)$  OR  $(FD > 2)$
- (b)  $(\text{Col-Shading Blends} > 0)$  OR  $(S > 2)$
- (c)  $(\text{Sum Shading} > FM + m)$  OR  $(\text{Sum } C' > 3)$
- (d)  $(MOR > 2)$  OR  $(2xAB + Art + Ay > 3)$

This pattern of high or low occurrences of particular indicators differentiated two groups of patients. The one group consisted of 105 patients (64.81%) and the other group consisted of 29 patients (17.90%). These patterns are summarised in Table 32.

**Table 32:**

Patterns of endorsed items on the Depression Index

	GROUP 1 (105 PATIENTS)	GROUP 2 (29 PATIENTS)
$(FV + VF + V > 0)$ OR $(FD > 2)$	No	Yes
$(\text{Col-Shading Blends} > 0)$ OR $(S > 2)$	No	No
$(3r = (2) / R > .44$ and $Fr + rF = 0)$ OR $(3r + (2) / R < .33)$	Yes	Yes
$(Afr < .46$ OR $\text{Blends} < 4)$	Yes	Yes
$(\text{Sum Shading} > FM + m)$ OR $(\text{Sum } C' > 3)$	No	No
$(MOR > 2)$ OR $(2 \times AB + Art + Ay > 3)$	No	No
$(COP < 2)$ OR $([Bt + 2 \times CI + Ge + Ls + 2 \times Na] / R > .24)$	Yes	Yes

Group 1 was characterised by the presence of the following indicators:

- (a) Either a high Egocentricity Index  $[3r + (2) / R]$  in the absence of reflections or a low Egocentricity Index provides an estimate of self-concern and possibly self-esteem. A low Egocentricity Index in the absence of any reflections  $(Fr + rF)$  is found when the depressed person compares him- or herself unfavourably with other people, whereas a high Egocentricity Index in the absence of any reflections  $(Fr + rF)$  suggests an unusual preoccupation with the self.
- (b) Low occurrence of the Affective Ratio  $(Afr)$ , in other words, a low occurrence of psychological receptiveness and interest to emotional stimulation, and a low tendency to process these stimuli through cognitive operations. This indicator includes low occurrence of Blends, which relates to a relative absence of complex psychological activity and resources, often involving affective experiences. If the proportion of blends is below average it also indicates less sensitivity to oneself and the environment.



- (c) Low occurrence of Co-operative Movement (COP) which relates to feeling less confident and more easily threatened by social relationships, associated with a tendency to isolate oneself. This indicator includes the Isolation Index  $(Bt+2xCl+Ge+Ls+2xNa /R)$ , which relates to social isolation.

In Group 1, the following indicators were not endorsed:

- (a)  $(FV + VF + V > 0)$  OR  $(FD > 2)$ , where the vista responses relate to a person attempting to handle anxiety introversively and distancing oneself from problematic situations; FD responses are related to painful introspection and being critical of oneself; these tendencies were thus absent in members of Group 1.
- (b)  $(\text{Colour Shading Blends} > 0)$  OR  $(S > 2)$ , where Colour Shading Blends reflect mixed feelings that prevent people from enjoying themselves, and S represents negativism or oppositional tendencies that could affect reality testing, as well as anger and aggression; these tendencies were thus absent in members of Group 1.
- (c)  $(\text{Sum of Shading} > FM + m)$ , which points to an unusual amount of emotional distress, or  $(\text{Sum } C' > 2)$ , which relates to extreme unpleasant internalised affect with dysphoric overtones; these tendencies were thus absent in members of Group 1.
- (d)  $(MOR > 2)$  OR  $(2xAB + Art + Ay > 3)$ , where Morbid Content Responses and Ideation (MOR) reflect negative and pessimistic views about the future, and the Intellectualisation Index  $[2xAB+(Art+Ay>3)]$  signifies a defensive use of intellectualisation as a way of reducing the impact of emotional experiences; these tendencies were thus absent in members of Group 1.

Group 2 had the same characteristics as Group 1, except that the indicator  $(FV + VF + V > 0)$  OR  $(FD > 2)$  was present, indicating that the person attempts to handle anxiety introversively, distances him-/herself from problematic situations, and shows an inclination towards painful introspection and being critical of him/herself.

### 6.5.2 The S-Constellation (S-CON)

In total four patients met the criterion of eight or more indicators on the S-CON, which indicates significant suicidal tendencies. The majority of people were not found to have suicidal behaviour according to the S-CON, which probably implies the occurrence of false negatives. The low presence of S-CON indicators does not mean that the possibility of suicidal behaviour should be ruled out, but rather that a more comprehensive investigation (using a battery of tests) is indicated.

There was no specific pattern in the responses, as was the case with the DEPI.

**Table 33:**

Frequencies with which the items on the Suicide Constellation were endorsed.

	PRESENT	NOT PRESENT
$V + VF + V + FD > 2$	11 (6.69%)	151 (93.21%)
Colour - Shading Blends $> 0$	9 (5.56%)	153 (94.44%)
$3r + (2)/R < .31$ or $> .44$	156 (96.30%)	6 (3.70%)
$MOR > 3$	0	162 (100%)
$Zd > +3.5$ or $Zd < -3.5$	72 (44.44%)	90 (55.56%)
$Es > EA$	145 (89.51%)	17 (10.49%)
$CF + C > FC$	8 (4.94%)	154 (95.06%)
$X + \% < 70\%$	144 (88.89%)	18 (11.11%)
$S > 3$	3 (1.85%)	158 (97.53%)
$P < 3$ or $P > 8$	115 (70.99%)	47 (29.01%)
Pure H $< 2$	90 (55.56%)	72 (44.44%)
$R < 17$	110 (67.90%)	52 (32.10%)

The high frequencies of the following indicators are noteworthy:

- (a) The Egocentricity Index [ $3r + (2)/R < .31$  or  $> .44$ ], which provides an estimate of self-concern and possibly self-esteem.
- (b)  $E_s > E_A$ , which relates to stimulus demands exceeding the available resources.
- (c)  $X + \% < 70\%$ , which relates to a tendency to translate stimulus fields in ways that are more atypical as a result of, for example, perceptual mediational distortion, over-commitment to individuality, failure to maintain control over ideational impulses or failure to control affective experiences.
- (d)  $P < 3$  or  $P > 8$ , where a low  $P$  may signal serious pathology or a marked sign of uncooperativeness, and a high  $P$  may indicate an orientation towards the more simplistic, correct and conventional manner.
- (e)  $R < 17$ , which could imply defensiveness, a depleted energy level, and lowered psychomotor functioning.

The following indicators had low frequencies:

- (a)  $FV + VF + V + FD > 2$ , which imply the *absence of*: tendencies to handle anxiety introversively, to distance oneself from problematic situations, or to engage in painful introspection and being critical of oneself.
- (b) Colour - Shading Blends  $> 0$ , which implies the *absence of* mixed feelings that prevent people from enjoying themselves.
- (c)  $MOR > 3$ , which implies the *absence of* negative and pessimistic views about the future.
- (d)  $CF + C > FC$ , which implies the *absence of* lability of emotions and thus a possibility of excessive control of emotions.
- (e)  $S > 3$ , which implies the *absence of* negativism or oppositional tendencies that could affect reality testing, as well as an absence of tendencies towards anger and aggression.

The mean score on the S-CON was 5.33 ( $s=1.1$ ) out of a possible total score of 12. One person who obtained a score of 8 on the S-CON, had a score lower than 5 on the DEPI. Three people who met the criterion of 8 or more on the S-CON, also had scores of 6 on the DEPI.

A Mann-Whitney U-test was done to examine gender differences, but revealed no significant differences between the mean scores of men and women on the S-CON. There was also no significant correlation between age and the S-CON.

## **6.6 CORRELATION BETWEEN VARIOUS SCALES**

To examine concurrent validity, correlations between the various scales and indexes were calculated. Table 34 reflects the correlation between the BDI, Rorschach indexes (DEPI and S-CON), and the relevant MMPI Critical Item Scales (Acute Anxiety State, Depressed Suicidal Ideation, Family Conflicts, Somatic Symptoms) for valid MMPI protocols.

**Table 34:**

Correlation between the BDI-II, DEPI, S-CON, and relevant MMPI-2 Critical Item Scales

	BDI	DEPI	S- CON	Acute Anxiety State	Depressed Suicidal Ideation	Family Conflicts
BDI						
DEPI	0.19					
S-CON	0.06	0.17				
Acute Anxiety State	0.32 <sup>a</sup>	0.25 <sup>b</sup>	-0.09			
Depressed Suicidal Ideation	0.44 <sup>a</sup>	0.21 <sup>b</sup>	0.02	0.45 <sup>a</sup>		
Family Conflicts	0.12	0.04	-0.13	0.20	0.27 <sup>b</sup>	
Somatic Symptoms	0.17	0.32 <sup>a</sup>	-0.13	0.60 <sup>a</sup>	0.29 <sup>a</sup>	0.02

<sup>a</sup>p < 0.01 <sup>b</sup>p < 0.05

Although there was a positive correlation between the BDI and the DEPI, this was low and statistically non-significant. There was however a stronger positive correlation between the BDI and the Depressed Suicidal Ideation and the Acute Anxiety State Critical Item Scales of the MMPI. There were positive, statistically significant correlation between the DEPI and Depressed Suicidal Ideation, and the Acute Anxiety State, but the correlation were not very high. The DEPI had a positive, statistically significant correlation with Somatic Symptoms. There was a weak positive correlation between DEPI and S-CON, but S-CON did not correlate significantly with any of the scales. Both Acute Anxiety State and Depressed Suicidal Ideation related positively with Family Conflicts and Somatic Symptoms.

## 6.7 CONCLUSION

In this chapter all the raw data was condensed into statistical formulations in order to control and simplify the results. Graphics and tables were used for this purpose.

The next chapter deals with interpretation of the findings and compares their consistency with the previous studies. The relevance of these findings to the traditional African practices regarding mental health is explored and presented in this chapter.

## CHAPTER 7

### INTERPRETATION AND DISCUSSION

#### 7.1 INTRODUCTION

In this chapter, the results reported in Chapter six will be interpreted. The usefulness of the BDI, MMPI and Rorschach (Exner's Comprehensive Approach) for the diagnosis of depression among Africans will be discussed. The value of the Structured Questionnaire and the respondent's experience of the MMPI will also be examined. Finally, the three mentioned instruments are compared, in order to find out if there are any significant differences in the subjects' performance on these instruments.

#### 7.2 DEMOGRAPHIC CHARACTERISTICS

##### 7.2.1 Age

The mean age of the sample was 32.4, with a range of 18 to 54 and a standard deviation of 7.5. This means that most of the patients were in the later stages of early adulthood, or in the transition from early to middle adulthood. This is the stage when people are still struggling for stability and it is associated with various stressors. People might be facing challenges at work, such as dealing with promotions or changing jobs. With regard to family life, people have to deal with parenthood, and they have to stabilise their relationships with their spouses and in-laws. This may lead to adjustment problems, which can be associated with depression.

##### 7.2.2 Gender

The largest number of respondents was females (68.52%) as compared to 31.48% males. The impression that could be created by these results is that more women than men are depressed. A study conducted by Mitchell and Abbott (1987) in Cape Town did in fact find that depression was approximately twice as common in females than in

males. Another study by Strebel and Msomi (1999) also found that mood disorders occur more frequently among women than among men. Although the findings of the present study correspond with the literature, it must be taken into account that the sample consisted of patients in a private practice and the gender composition could thus rather mean that women consult a psychologist more readily than men. The gender composition could thus reflect the way in which people were referred to the psychologist, either by themselves, friends, doctors, family, or other people.

During the past six years of working with depressed African patients, it became evident to the researcher that men and women are equally likely to be afflicted by depression. The gender differences found in research could partly be attributed to the strong influence of cultural practices among African men and women. Cultural values that are reflected in idioms such as *monna ke nku o lella teng* (literally meaning *a man is like a sheep, he cries internally*), signify that men are not supposed to show when they hurt. As a result of such norms, it will not be surprising to see more African women seeking professional assistance for emotional problems. On the contrary, men would not readily seek treatment on their own.

### **7.2.3 Marital status**

With regard to marital status, 48.15% was married and 40.7% was single. Although the difference between these two groups is slight, the impression created by these results is that married persons could tend to be more vulnerable to depression than single persons. Being married exposes a person to particular stressors within the family. As was indicated in Chapter six, the most frequently cited problem of the patients (which they also regarded as the cause for their illness) was problems with a spouse.

A very small number (6.17%) of divorced patients were included in the sample. These results are interesting. One possible explanation for this may be that the people who were observed in the practice, did not opt for divorce, despite the fact that they were caught up in problematic relationships. This might imply that divorce is not regarded



as a ready solution for marital problems. There is a proverb, *Lebitla la mosadi ke bogadi*, which literally means that the grave of a woman is at the place of her in-laws. A person's dignity (*seriti*: literally meaning *shadow*) in the community would be harmed by divorce. This means that even if a marriage is problematic, divorce will not be the first solution opted for. In cases of marital conflict, extended family members are also involved in the effort to resolve the problem.

It must however be borne in mind that the patients were observed in an urban practice and that more than three-quarters of them were professionals. Although the traditional norms regarding divorce could have changed within this group, there is also the probability that they could still adhere to their traditional views and in an effort to address their problems decided to consult a psychologist.

#### **7.2.4 Occupation**

The results show that there were a large number (77.78%) of professionals in the sample, compared to 16.05% who were students and only 3.70% who were unemployed. Professionals include people who hold a tertiary educational qualification, such as teachers, lawyers, policemen, and nurses. It is significant that there were not a greater number of unemployed people in the sample. A reasonable interpretation to the surprisingly low number of unemployed depressed patients and the large number of professionals is related to their socio-economic statuses. Whereas the professional people were employed and could afford treatment through medical aid, this would not apply to the unemployed.

The generally high level of qualification of the largest portion of the sample could be expected to have a bearing on their ability to complete the tests used in this study. This is addressed later in this chapter.

## **7.2.5 Religion**

Most of the patients belonged to some or other church and only 5.6% reported that they did not belong to any church. This implies that most of the patients have potential access to a support system, notwithstanding the fact that this did not appear to help them to cope with their problems. It is possible that, although they belonged to a church, they did not participate actively in its activities.

## **7.2.6 Referral**

### ***7.2.6.1 Source of referral***

The highest referring source in the sample was the patients' friends (35.80%) who knew about the service provided at the researcher's practice. This was followed by referral by general practitioners (30.56%), self-referral (22.84%) and lastly referral by family members (10.49%).

The first trend of significance in the data, is that the doctors formed less than a third of the sources of referral. One possible reason for this is the potential misdiagnosis of depression by general practitioners. Strauss, et al. (1995) conducted a study in a general practice in the Orange Free State, and found that although there was a high prevalence of Major Depression in the general population, it often went undetected by general practitioners. Glaser (1998) also found that depression is commonly missed in diagnoses. According to a survey conducted by the Global Alliance of Mental Illness Advocacy Network (1988), doctors in South Africa misdiagnose a significant number of depression and anxiety patients. The results of Westaway and Wolmarans (1992) showed a marked lack of knowledge among general practitioners regarding the complexities of mental illness.

A second possible reason for the relatively low referral rate by the doctors, could be the attitudes of doctors towards psychologists. Westaway and Wolmarans (1992) conducted a study about attitudes towards psychology, psychiatry and mental illness

among various sub-groups, and found that many general practitioners favoured psychiatrists over psychologists when dealing with emotional or mental problems. By implication, this would mean that they would rather refer a patient to a psychiatrist than to a psychologist.

Another significant trend in the findings is that a combined group consisting of nearly 69% of the patients was referred by either a family member, or a friend, or by the patient him-/herself. This reflects an understanding of the difference between mental and physical illnesses, an awareness of the services that are available for psychological treatment, and a positive attitude towards making use of such services. This contradicts some of the traditional cultural beliefs of Africans that mental disorders and depression in particular, are regarded as a sign of weakness and are stigmatised (Makanjuola & Olaifa (1987); and Westaway & Wolmarans, 1992). The results of the present study could imply that the awareness of mental disorders and attitudes towards such disorders are changing as an increasing number of black psychologists qualify and work in the community. It is also possible that exposure to the media could have contributed to these attitudes.

The role of friends, specifically in referring patients, is significant. It is the experience of the researcher that previous patients, who attended the practice, refer many of their friends. It is possible that those who have been exposed to treatment themselves are able to identify other sufferers of depression and that they would encourage others to undergo the relevant treatment.

#### ***7.2.6.2 Medical conditions***

The majority of patients (61.11%) in the sample did not present with medical conditions. About 39% of the patients who presented with physical symptoms such as headaches or different kinds of pains, or had a history of chronic disease, were referred to a physician to investigate the possible manifestation of a medical condition. Since the primary problem of these patients was depression, which in some instances

was complicated by a medical problem, this latter group of patients remained in the study.

A relatively small number of patients said that they at some time or another suffered from illnesses such as diabetes, asthma, hypertension or a heart condition, or abdominal ulcers. Only 0.6% said they were HIV positive. It thus appears, as whole, medical conditions did not serve as a source of stress for the patients.

The implication of these results is that appropriate assessment instruments could help to easily identify depression, and that treatment could be initiated promptly, without confusing it for a medical condition. In those instances where a medical condition co-exists with depression, patients could receive treatment from both mental health practitioners and medical officers.

#### ***7.2.6.3 Reasons for referral***

Previous research (e.g. Gold, 1995; Goldberg et al., 1989; Quinn, 1997) on depression in African communities reveals that Africans predominantly present with physical symptoms when they are depressed. This is likely to contribute towards the misdiagnosis of depression in Africans, when it is thought that the symptoms represent a medical condition, but when the patients in reality do indeed suffer from a depressive disorder. It is interesting to note that the findings of this study show that stress (26.14%) and depression (17.61%) were the most frequently cited reasons for referral, whereas physical complaints of various types amounted to 12.51% of the reasons given. This is contrary to previous studies that reported somatic symptoms as being predominant among members of the African community suffering from depression.

There is not a clear distinction between stress and depression. When the researcher asked patients what they meant by stress, some answered that they felt pressured by the demands of life, and that they felt that they could not cope with these demands. Others mentioned that stress to them meant to be excessively worried about problems,

and others moreover said that it means *to feel depressed*. It is however significant that they formulated the reasons in psychological terms and not in somatic terms.

Another significant finding was that family conflicts emanating from interpersonal relationship problems, together with the death of a family member, amounted to 25% of the reasons for referral. In general, family plays an important role in people's lives. On the one hand, the family provides physical and emotional support and security. Being a member of a family provides one with a sense of identity and a feeling of belonging to a specific group that provides one with status (Magane, 2000). It is thus not unexpected to find that problems within a family could be one of the sources of worry, and that this could contribute to consulting a psychologist. This could imply that the patients did not so much consult the psychologist for feeling depressed as such, but that they saw the psychologist as a person who could help them with solving their difficulties.

A total of 15 patients described psychopathological conditions as reasons for referral. This included anxiety, drinking problems, personality problems and hallucinations. These results imply sophistication on the side of both the sources of referral and the patients themselves, in the sense of awareness and understanding of mental conditions, as distinguished from medical conditions.

### **7.2.7 Presenting symptoms**

The patients were asked to report what their presenting problems were and their verbatim statements were recorded. Five major groupings emerged from this, namely stress, physical complaints, emotions (comprising depression, anxiety, anger and frustration), self-concept and a general category of other symptoms.

Only 13 patients reported low self-confidence and low self-esteem. Related to this, when the patients were asked how they felt about being ill, only 10 reported that the illness affected their self-esteem negatively. This is consistent with the DSM-IV, which does not list low self-esteem as one of the diagnostic criteria for depression. It

is also the researcher's experience from her clinical practice that patients rarely spontaneously mention feelings of inferiority or negative aspects of themselves. This finding however does not conform to the view of authors such as Clark et al. (1999) who state that depressed individuals commonly lack confidence and have low self-esteem. A possible explanation could be that low self-esteem is not easily verbalised in the Black community. Not verbalising negative views about oneself could be related to shame, in the sense of not wanting to lose dignity, i.e. to preserve a sense of respect. Various authors, especially in earlier literature (e.g. Biesheuvel, 1959; Edgerton, 1971; Riesman, Glazer & Denney, 1950) have expressed the view that the behaviour of Africans is often regulated by a sense of shame, and that this is generally characteristic of traditionally oriented societies.

#### **7.2.8 Feelings about self**

In the spontaneous presentation of symptoms, (refer to paragraph 7.2.7), the patients did not raise self-esteem. However, when they were specifically asked how they felt about themselves, they mentioned a large number of negative feelings (66.9% of the responses). The most frequent reaction (21.43%) was a general negative reaction to the self, which included problems such as that the patient does not feel good about the self, sees himself as a burden, has lost confidence in the self and feels like a failure. Implicit in this is low self-esteem. Depressed feelings, having negative ideas and feeling confused were also among the most frequently mentioned reactions. These results are consistent with the negative cognitions found in depression. Further support of these findings comes from the cognitive theory of depression, which explains a condition of depression as characterised by negative cognitive self referent schemas which become highly activated as a result of negative life stressors (Clark et al., 1999).

It is interesting that 21.40% of the responses reflected optimism and encouragement. These feelings were possibly related to the fact that the patient's problem had been identified, or because he /she was not alone, or because he/ she felt he would get

better. The positive reactions could thus have been directly related to the expectation that the person's problems would be solved, and to the support the person received.

With regard to physical reactions, there is consistency with the results reported earlier in this chapter, that there was a low presence of physical symptoms. Feeling ill, weak and tired represented only 4.75% of the responses.

### **7.2.9 Suicide attempts**

Of the 162 patients, 21 reported that they previously had tried to commit suicide. The most frequently reported method of suicidal attempt was ingestion of a toxic substance (nine patients). Jumping out of a high building was placed second (four patients) and three patients attempted to hang themselves. The shooting of oneself and the stabbing of oneself (four patients) were other methods used to try to commit suicide. One patient threw himself in front of a moving bus.

All these methods of suicide mentioned are very serious attempts and cannot be interpreted as threats or attempts to gain attention. Earlier literature (Asuni, 1967; German, 1972; Prince, 1968) reports that suicide does not often occur in African communities. In the current study parasuicide also occurred in only 12.96% of the patients. These findings are comparable and consistent with the previous studies on suicide.

### **7.2.10 Causes of the illness**

As was indicated in Chapter six, three lines of enquiry provided information about what the patients regarded as the causes of their illness. In the course of the interview, the patients verbalised various problems, which were written down verbatim and subsequently coded. In addition, they were asked directly what they regarded as the cause of their illness, and they were also asked about the stressors they experienced.

### **7.2.10.1 Family problems**

In all three the above-mentioned lines of enquiry, family matters were mentioned most frequently, and it was especially problems with a spouse that featured prominently. Other family-related issues were conflicts with other family members (e.g. in-laws), illness or death of a family member, a member leaving the family, and general conflicts. The majority of the respondents were married and it is thus not surprising that family matters played an important role in their lives, including their illness. It appears that these respondents were caught in problematic family relationships, which they could not effectively deal with.

Earlier in this chapter, reference was made to the traditional African cultural value that divorce is not accepted as an option in an unhappy marriage. A woman is not supposed to complain when her marriage is not going well, and she should not consider divorce. This is expressed in idioms such as *Lebitla la mosadi ke bogadi* (literally, the grave of a woman is at the place of her in-laws) and *lefu ga le tlhadiwe* (literally, one cannot divorce death). In other words, marriage in African cultures is seen as a permanent status for married women – no matter how hard things can be.

### **7.2.10.2 Work-related problems**

Work-related problems were also frequently reported as a stressor and reason why respondents came to see the psychologist. This included aspects such as problems with colleagues, and not being able to cope with the demands at work, the workload, and the long working hours.

The largest percentage of the respondents occupied professional positions. One could thus expect that their work, next to their families, played an important role in their lives. If something goes wrong at work, it threatens one's stability and this could constitute a source of worry. The aim of this study was not to investigate the *causes* of depression and little information is thus available concerning the reasons why work stressors would contribute to depression. It could include a variety of factors, such as



lack of a support system, personality differences, and inadequate training or qualifications. Whatever the underlying reasons were, it does indicate that the patients who experienced work as stressful, did not have adequate mechanisms to cope with it.

Work problems appeared to have contributed to the illness, but the latter in turn also influenced work performance. The patients were asked how their illness affected their work. The pattern of their responses was very similar to their experience of stressors. The respondents reported that the illness decreased their productivity, caused poor concentration, and that they experienced an inability to cope with work under any circumstances. Other effects on their work included loss of interest and disturbed relationships with other people at work. The negative effect of depression on work performance and the economic implications thereof, emphasises the need for studies to assess the financial implications of a depressed and untreated workforce.

#### **7.2.10.3      *Unemployment and financial problems***

Unemployment was mentioned as a stressor by only four patients. The low rate of unemployment is not surprising here because the majority of respondents were employed (with only 3.70% not working).

In spite of the low rate of unemployment, financial problems were frequently mentioned as contributing to the illness. The researcher has gained the impression from her practice that many patients, even though employed, live beyond their means, and often accrue more debts by borrowing from cash lone schemes at high interest rates.

#### **7.2.10.4      *Other causes***

Various other problems, causes and stressors were also mentioned, but in lower frequencies. These include a variety of issues, such as general problems in relationships with non-family members, lack of friends and loneliness, sexual abuse, physical problems, struggling to cope with life's demands, and poor self image.

Consistent with the findings reported earlier in this chapter regarding the relatively low occurrence of somatisation, only a limited number of patients mentioned physical problems as a stressor. Significant in this, is the similarity of the problems with what one would find in western societies.

Only three patients felt that they were bewitched, while nine patients mentioned suspicions of witchcraft. This supports the findings reported earlier, that there is a tendency of Africans moving away from superstitious beliefs. Patients who adhere to traditional beliefs and who consult traditional healers for matters such as suspicions of witchcraft, often tend to not comply with Western treatment. Moving away from superstitious beliefs is likely to be an important contribution to their treatment of depression.

### 7.3 MMPI-2

#### 7.3.1 Impression of the MMPI

The patients were asked various questions regarding their experience of the MMPI. In general, the patients experienced the test positively. Their views included that the test is realistic, interesting and fascinating. On the question whether the test was helpful to them in any way, they also reacted positively, saying that the test is motivating and that it promotes one's self-understanding, tests one's mind and speed, helps one to express one's feelings and to solve problems.

The common complaints from patients about the MMPI were that it was too long and repetitive, that it contained language, which was difficult and complex, and that it took mental energy to answer the questions. Other complaints of importance were that the items in the MMPI were contradictive and that the purpose for the test was not clear.

With regard to language, the patients said that they found words such as *certainly*, *recently*, *lately*, *usually*, *most of the time*, and *seldom* difficult to understand and deal

with. The researcher finds it significant that people with at least Grade twelve education (many of who had tertiary qualifications) experienced language problems with the MMPI. However, most of the patients who participated in this study, qualified during the old education system in South Africa, where black educational institutions were disadvantaged in terms of resources and this lead to a lower quality of education. The hope and expectation is that as change continues to proceed, fewer people will experience these problems.

Suggestions made by the patients were that the use of the MMPI should be continued, but that repetitions in the questions should be removed, and the administration of the MMPI divided into two sessions; in addition, the language had to be simplified and questions made clearer. A small number said that the true and false questions should be separated.

The complaints about the length of the test and the recommendation that it be administered in two sessions could be related to the patients' depressed state. Working on the test could have affected their level of energy, concentration and memory. Indecisiveness and loss of interest, which are associated with depression, could account for their comment that the items contradict each other – they might have been unable to decide which option to endorse.

Serious consideration should be given to modifying the test for further use in Africa if this were to happen, specific attention will need to be given to the wording of the items, to simplify and formulate it more specifically and without ambiguity.

### **7.3.2 Validity scales**

Of the 162 MMPI protocols, 46.3% were invalid. This means that in most instances the protocols were useful for the specific group of people who have attended school to at least Grade 12.

The average scores of the total group of patients for True Response Inconsistency (TRIN), Variable Response Inconsistency (VRIN), the K-scale and the F(Back) scale [F(B)] were within normal limits. The average scores on the F scale and the L scale exceeded the cut-off score. The analysis of the frequency of profiles that exceeded the cut-off scores similarly indicated that high scores on the F and L scales made an important contribution to the invalid protocols. Forty-four protocols also had scores above the cut-off point on the F (B) scale and sixty-nine protocols had scores above the cut off point on Cs.

With regard to those scales where the mean score did not exceed the cut-off scores, the interpretation is that the patients were co-operative and willing to report negative aspects of themselves. These patients endorsed items consistently without faking. Their low score on the K scale indicates that patients were open and frank to disclose their personal problems.

The F scale is used to detect the tendency to claim excessive psychological symptoms or to exaggerate one's adjustment problems. It may also indicate malingering, confusion, reading problems and severe psychopathology. A possible explanation for the high scores on the F scale is that respondents could not understand the language used, since they found it confusing and because their reading was disturbed by poor concentration.

Although the average score on F(B) fell below the cut-off score, there were a significant number of protocols that exceeded this score. The F(B) scale was developed to detect possible deviant or random responding in the latter part of the items. Interpretative hypotheses for elevated F(B) scores are the potential exaggeration of symptoms and the potential faking of psychological problems. This is consistent with the high score on the F scale. Other interpretative hypotheses for high scores are confusion, reading problems, random responding and severe psychopathology.

Sixty-nine protocols had Cs scores higher than 30, which is the cut-off score for valid scales. This means that these patients did not answer at least 30 of the first 370 items.

Possible reasons for this may include indecisiveness, fatigue, and low mood. All these symptoms are related to depression. Defensiveness, in the sense of not wanting to deal with demands directly, and experiencing difficulty in understanding the items, could also have played a role (Butcher & Williams, 1996).

Elevations on the L scale could indicate the following: Unwillingness to admit even minor flaws, denying problems, unrealistically proclaiming virtue and excessively high moral standards, faking, outright efforts to deceive others about motives or adjustment, and personality adjustment problems.

Considered in conjunction with each other, the above could indicate a tendency among some patients to exaggerate their problems and fake their symptoms without much moral hesitation. A possible reason for this is related to the nature of the sample used. The patients often experienced relationship problems, and consulted the psychologist to assist them to restore their relationships. In this, they could exaggerate matters to seek attention from their partners. It has commonly been experienced by the researcher that patients, mostly women, would ask that the psychologist to call their partners and talk to them. In such cases the latter would then often be surprised to find that the strain in their relationship has led to such serious problems as presented by the patients.

Assuming that these validity indexes are an accurate reflection of tendencies in patients' behaviour, the information gained from it can be used in various contexts. For example, the constellation found above that consisted of elevated L, F and F(B) scores, could be used in forensic work in cases of patients claiming compensation for injuries, or in criminal cases when a person pleads for criminal incapacity.

The scores for the valid protocols were lower than those for the invalid protocols on VRIN, TRIN, F and F(B). The VRIN and TRIN scales assess consistency and the results thus indicate that people with valid protocols tend to be more consistent in their responding than people with invalid protocols. People with valid protocols are also more likely than people with invalid protocols *not* to have a tendency to claim

excessive psychological symptoms or to exaggerate their adjustment problems, in other words to be faking.

The scores for the valid protocols were higher than those for the invalid protocols on K and Cs. This indicates that the patients with valid protocols were more inclined to be defensive, to deny problems and to be unwilling to disclose personal information and discuss problems. These patients were also, as would be expected in cases of depression, more inclined to be indecisive and to experience fatigue and low mood. The mean for the valid protocols was also higher than the mean for invalid protocols for L, but the difference was not statistically significant. This means that patients with valid protocols were more inclined to be reluctant to admit even minor flaws (Butcher & Williams, 1996).

In summary, people with valid protocols tend to be more consistent in their responses than people with invalid protocols. The former tends not to claim excessive psychological symptoms or to exaggerate their adjustment problems. They are also more inclined to be defensive, to deny problems and to be unwilling to disclose personal information and discuss problems. They are also more inclined to claim to be virtuous and psychologically adjusted. This interpretation should not underestimate the fact that subjects did not clearly understand the MMPI for the most part and that the result may have been partly influenced by language problems.

The scores of the men and women on the validity scales were compared by means of the Mann-Whitney U-test. There were no significant differences between men and women with regard to all the validity scales. The correlations between these scales and age varied between -0.03 and 0.10, and none of these correlations were significant. These results show that there is neither a gender nor an age bias in these scales.

### 7.3.3 Diagnoses on the MMPI

The computer programme that was used for the scoring of the MMPI, generates diagnoses for valid protocols. More than one diagnosis can be generated for a particular patient and in the present study, the first three diagnoses were coded. The data was analysed by first determining the total number of diagnoses, and therewith only the first diagnosis that was given for each patient.

Although all the patients were diagnosed by a psychiatrist as suffering from a depressive disorder, the MMPI indicated a variety of diagnoses. The most frequent diagnoses (in the group of total number of diagnoses) were Schizophrenia, Personality Disorder, Substance Abuse, Somatisation, Paranoid Disorder, Anxiety Disorder, and Dysthymia. Other diagnoses less frequently made were Affective Disorder, Severe Disturbance, Major Affective Disorder, Bipolar Disorder, Schizoid Personality Disorder and Addictive Disorders.

The pattern for the first diagnosis for a patient was very similar to the above. The most frequent diagnoses were Schizophrenia, Personality Disorder, Somatisation and Dysthymia. Other first diagnoses were Anxiety Disorder, Affective Disorder, Severe Disturbance, Substance Abuse, Bipolar Disorder, no specific diagnosis, Major Affective Disorder and Paranoid Disorder.

An interesting finding was that many patients were diagnosed with Schizophrenia and Personality Disorder. A possible explanation for this is that the respondents did not understand the language used in the MMPI, which was confusing and too complex for them to comprehend. The following are examples from the items that are used to diagnose Schizophrenia, which could have been confusing to the patients: Item 17: *I am sure I get a raw deal from life.* Item 46: *I prefer to pass by school friends, or people I know but have not seen for a long time, unless they speak to me first.* Repeated questions, which the patients experienced negatively, might have contributed to the patients being bored and losing interest in the test. The length of the test could

have tired the patients to such an extent that they were not able to concentrate well – particularly since they were all depressed population.

Although Substance Abuse was indicated in 17 instances in the total number of diagnoses, it was only given as a first diagnosis in three instances. This could mean that Substance Abuse might be secondary to the main diagnosis. In the Structured Questionnaire, six patients indicated that they used alcohol, while only four patients mentioned alcohol abuse as a presenting symptom. There was thus correspondence between the MMPI results and the personal information obtained from the patients. This could be evidence in support of the usefulness of the MMPI.

In the total group, about 10% of the valid protocols contained the diagnosis of Somatisation and this was only given in 7.5% of the first diagnoses. During the interviews of the patients, Somatisation also featured less prominently than other symptoms in terms of presenting symptoms.

Paranoid Disorder was diagnosed only once as a first diagnosis, but 11 times as a second and once as a third diagnosis. As was indicated earlier, many patients presented with interpersonal problems, especially with regard to their spouse. It is possible that this has generated negative attitudes and a lack of trust towards others, which was then projected into their MMPI profiles.

Anxiety Disorder featured in 13 instances in the total number of diagnoses, but only five times as a first diagnosis. The occurrence of Anxiety Disorder is understandable, as anxiety is often associated with depression (Global Alliance of Mental Illness Advocacy Network, 1988).

Dysthymia featured in 13 instances in the total number of diagnoses, and 11 times as a first diagnosis. The other diagnoses that relate to an affective disorder did not occur frequently. Thus, only a small percentage received the diagnosis of Dysthymia, Major Affective Disorder and Major Depression from the MMPI profiles. It is important to note that while the protocols on which the diagnoses were made were valid; the



depressive disorders were yet not identified. This could be due to the patients' misunderstanding of items such as:

*Most of the time I feel blue;*

*I brood a great deal;*

*I very seldom have spells of the blues.*

Some of the items related to depression were also ambiguous or difficult to follow, for example *These days I find it hard not to give up hope of amounting to something*. The patients also reported that they found words such as *certainly, recently, lately, usually, most of the time, and seldom* difficult to understand. These words occur in some of the items used to generate the diagnosis of depression.

If one accepts that the DSM-IV diagnoses made by the psychiatrists were accurate, the overall conclusion with regard to the diagnoses generated by the MMPI, is that a substantial number of *misdiagnoses* occur. This implies that in many instances the MMPI does not have concurrent validity in an African setting when using a DSM-IV diagnosis as criterion. It must be noted that whereas other tests such as the BDI-II and the MCMI-III are based on the DSM-IV, this is not the case with the MMPI. The MMPI was originally developed to assess personality and its main use was not to make diagnoses (Butcher & Williams, 1996). Care should thus be taken when using the MMPI-2 diagnoses, since this may lead to needless labeling of people as schizophrenics, which could have serious social and treatment consequences. The findings of the present study imply that the MMPI should not be used as a singular measure to reach a diagnosis among Africans.

Affective Disorders (Dysthymia, Bipolar Disorder, and Major Affective Disorder) diagnosed by the MMPI and given as first diagnoses, were compared with the BDI categories of severity. Only the valid MMPI protocols were used. The results show that 50% of the Affective Disorders diagnosed by the MMPI were classified as severely depressed by the BDI. Approximately one quarter were classified as either mildly or moderately depressed. It must, however, be borne in mind that only 18 patients with valid protocols were diagnosed with an affective disorder, and one must be careful not to attach too much significance to these findings. This difference

between the MMPI diagnoses and severity of depression from the BDI is ascribed to language difficulties experienced by patients at the time when they were completing the MMPI. The 50% of the patients, who fell in the category of severe depression in terms of the BDI, are consistent with the conditions of patients when they first entered the programme. Only patients, who were moderately or severely depressed, were selected for this study.

#### **7.3.4 Content Scales**

The results pertaining to the Content Scales show that the highest mean scores were obtained for bizarre mentation, health concerns, depression, anxiety and work interference. The mean scores for family problems, which is also of specific relevance to the present study, was somewhat lower.

The high mean score for bizarre mentation is consistent with the frequent diagnosis of Schizophrenia reported above. The same arguments, which were provided to explain the frequent diagnosis of Schizophrenia, could also apply to the high score for bizarre mentation. A possible explanation for these results is that language problems played a role in influencing the results in such a way that the patients obtained a high score on bizarre mentation. However, since both the diagnosis of Schizophrenia and the high mean score for bizarre mentation differ from the diagnosis of depression among the patients and since there is no item overlap, doubt is cast on the usefulness of the MMPI among black depressed patients.

The second highest score was for health concerns, followed by depression and anxiety. The high T-score of 70.99 for depression makes logical sense – taking into consideration that all the patients had been diagnosed as depressed by a psychiatrist. The constellation of health concerns, anxiety and depression is consistent with the findings of other studies (Global Alliance of Mental Illness Advocacy Network, 1988) that indicate that somatic complaints and anxiety often occur in depression. However, as indicated above, 43.72% of the patients' presenting symptoms pertained to emotional complaints (including depression and anxiety), whereas only 29.36% of the

presenting symptoms were related to somatic complaints. The high mean scores on depression and anxiety are thus consistent with the presenting symptoms, but the somatic complaints featured less prominently in the interviews. The health concerns Content Scale measures physical symptoms across several body systems, including gastro-intestinal symptoms, neurological problems, sensory problems, cardiovascular symptoms, skin problems, pain and respiratory troubles (e.g. coughs and hay fever). There is considerable overlap between these symptoms and the presenting symptoms of the patients, which included:

- gastro-intestinal: abdominal pains, disturbed appetite, weight loss and vomiting;
- pains: pain in the shoulders, neck and backache; headaches;
- cardiovascular: unstable blood pressure, palpitations and sweating;
- skin problems: allergy;
- respiratory: asthma.

The difference between the MMPI and the questionnaire data could be related to the method by which the information was obtained. There were no structured questions about specific complaints in the interviews. In contrast, the MMPI contains direct questions of this kind, which could have reminded the patients of something, which they had experienced. The interviews were conducted in the patients' home language, whereas the MMPI is in English. Since a number of patients also complained about the language of the MMPI, it is also probable that patients did not understand the questions, or that the test was too long for people with already compromised concentration, and that this affected the trustworthiness of the data obtained by means of the MMPI.

In the Structured Questionnaire, most of the problems, causes for the illness and the stressors that were experienced, were related to family problems. In the Content Scales of the MMPI, Family Problems had a mean T-score of 65.56 which, although relatively high, falls among the lower 50% of the Content Scales. To interpret this, it must be borne in mind that the MMPI measures slightly different aspects of family relationships, than what the patients reported during the interviews. For example, the

Content Scale on Family Problems includes complaints of uncaring family members and reports of feelings of hate towards family members, whereas the questionnaire reflected mostly interpersonal relationship problems, especially those with a spouse.

The T-score (70.44) for Work Interference was relatively high on the Content Scales. In the Structured Questionnaire, work-related problems were also frequently reported as a stressor and as a cause for the illness. These results imply that patients did not have adequate coping skills in their work environments and perhaps also that mental health awareness programs might not have been adequate or available within their work situation. This cast doubts on the adequacy and availability of mental health awareness programs within the work situation.

The Content Scale of Low Self-esteem had the fifth lowest mean score ( $T=62.44$ ). Although low in rank order, the T-score was nevertheless of a magnitude that it needs to be considered important. This is consistent with the findings of the Structured Questionnaire, where only 13 patients reported low self-confidence and low self-esteem. Related to this, when the patients were asked how they felt about being ill, only 10 said that the illness negatively affected their self-esteem. A possible explanation could be that low self-esteem is not easily verbalised in the Black community as was mentioned earlier in paragraph 7.2.7

On the Content Scales, Anger had the second lowest mean T-score of 58.62. This finding is consistent with the findings of the Structured Questionnaire, where anger comprised only 7.40% of the presenting symptoms. On the question of how the patients felt about being ill, 4.42% of the responses related to anger and aggression. When asked how the patients felt about themselves, there were five (3.25%) instances where patients said that they felt angry and irritable. It thus appears that there is good correspondence between the MMPI's measurement of anger in the Content Scales and the findings based on the interviews with the patients.

The scores of males and females on the following Content Scales were compared for valid protocols: Health Concerns, Depression, Anxiety and Family Problems. There

were no statistically significant differences, except with regard to Depression, where males obtained higher scores (Mean = 71.97) than females (Mean = 68.30). The difference between the means was however so small that it is unlikely to be of any practical importance.

Overall, it appears that there was good correspondence between relevant dimensions as measured by the MMPI, and other information available concerning the patients. The constellation of high scores on Health Concerns, Depression and Anxiety, definitely fits well with what is known about the role of Somatisation in depression, and the relationship between anxiety and depression. Somewhat disconcerting however, is that the highest score was obtained for bizarre mentation. This does not fit in with the clinical diagnoses of the patients, and it could have been the result of either language problems or culture-specific ways in which mental disorders are experienced. It would be useful to conduct further comparative studies of schizophrenic and depressed patients with the view to assess the usefulness of the MMPI for the differentiating between bizarre mentation and depression.

### **7.3.5 Critical Item Scales**

The following Critical Item Scales were of specific relevance to the present study: Acute Anxiety State, Depressed Suicidal Ideation, Somatic Symptoms and Family Conflict. In the following paragraphs, the item analyses pertaining to these scales are discussed, followed by a discussion of the mean scores on these scales:

#### ***7.3.5.1 Item analyses of the Critical Item Scales***

Item analyses of these scales yielded generally satisfactory item-total correlation. In the case of Acute Anxiety State, only Item (208) had a very low item-total correlation of 0.03. This finding could be related to confusion and ambiguity caused by the wording of this item. The item reads *I hardly ever notice my heart pounding and I am seldom out of breath*, and in their comments about the MMPI, the patients said that they found expressions such as *seldom* and *hardly ever* confusing.

On the Depression Suicidal Ideation Scale, all items yielded an acceptable item-total correlation except Items 71 and 388, which had low item-total correlations of 0.09 and 0.04 respectively. Item 71 reads as follows: *These days I find it hard not to give up hope of amounting to something* and the wording of the item 388 is; *I very seldom have spells of the blues*. On the Somatic Symptoms Scale, Item 33 showed a low item-total correlation of 0.08. Again the wording of these items seems to be ambiguous, causing difficulties to grasp the meaning. Item 33 reads as follows: *I seldom worry about my health*.

The Family Conflict Scale showed satisfactory item-total correlation. These items are formulated in a straightforward manner and in direct, simple language, which probably counteracted misinterpretation and confusion.

The overall results of the item analyses of the Critical Item Scales provide the impression that these scales could be useful for diagnostic purposes, except in the case of a few items which created language problems.

#### **7.3.5.2 Mean scores on the Critical Item Scales**

The mean scores for the Critical Item Scales were generally lower than for the corresponding content scales. One reason for this is that the two sets of scales comprise different items and different numbers of items, and measure different things. The content scales are aimed at identifying behavioural features in particular problem areas. In contrast, the Critical Item Scales are used to identify psychopathology, in terms of which diagnoses can be made and interventions initiated (Butcher & Williams, 1996).

Even though all the patients had been diagnosed as depressed, the mean score on the Depressed Suicidal Ideation Scale was relatively low. The mean score was 10.8 out of a possible maximum of 21. Of the 162 patients, only 21 reported that they had tried to commit suicide, and this could have depressed the mean score. However, the scale

does not only measure suicidal ideation, but also cognitive and affective aspects of depression in a broader sense. It is possible that the MMPI has limitations, which contributed to the low mean score. In the Depressed Suicidal Ideation Scale, 10 of the 21 items are in the second half of the test. The test is lengthy and therefore depressed patients, who often experience problems with concentration and fatigue, may find it too tiresome to complete accurately. In addition, depressed patients are also characterised by general negativism, loss of interest and difficulty in making decisions, and thereupon may find it especially difficult to make decisions out of the many items.

Other commonly used depression scales are generally shorter. The Self-Rating Depression Scale (Zung) comprises 20 items. The BDI comprises 21 items, while the Hamilton Depression Scale has 21 items (Mc Dowell & Newell, 1996). In contrast to the Depressed Suicidal Ideation Scale, where nearly 50% of the items are in the second half of the test, in the Anxiety Scale, only four out of 17 items are in the second half of the test. In the Family Conflicts Scale, one out of four items is in the second half, and in the Somatic Symptoms Scale, two out of 23 items are in the second half. Most of the items generally appear in the first half of the test, but the patients nevertheless obtained rather low scores in all the scales.

These results possibly exclude fatigue due to the length of the MMPI as the only factor that influenced the patient's response. It is, however, possible, that it also affected their performance on the first half of the test.

### **7.3.5.3 Gender and age**

On the valid scales, there were no statistically significant differences between males and females with regard to Acute Anxiety State, Depressed Suicidal Ideation and Family Conflicts. With regard to Somatic Symptoms, women tended to obtain higher scores (mean = 11.20) than males (mean = 9.38). The possible interpretation of these results relates to the African expression: *monna ke nku o llela teng* which literally means that men are not supposed to complain when they are ill or when they

face problems. Based on this saying, it is thus understandable that women will be more vocal than men are.

Age did not correlate significantly with Depressed Suicidal Ideation and Family Conflicts. Although there was a statistically significant correlation between age and Somatic Symptoms ( $r=0.23$ ,  $p<0.05$ ) and between age and Acute Anxiety State ( $r=0.25$ ,  $p<0.05$ ), these correlations were however very low and therefore unlikely to be of practical significance. These findings indicate that depressive symptoms are similar in all age groups of adulthood.

### 7.3.6 Correlation between the Content Scales and Critical Item Scales

The results of the correlation analysis between the Content Scales and Critical Item Scales of the MMPI showed that the following corresponding scales had positive and relatively high correlations (the Critical Item Scales are mentioned first, followed by the Content Scales):

- Acute Anxiety State and Anxiety
- Depressed Suicidal Ideation and Depression
- Family Conflicts and Family Problems
- Somatic Symptoms and Health Concerns

The general impression is that the items in the Content Scales and the Critical Item Scales of the MMPI are not significantly different in spite of the fact that there are only two items from the Anxiety and Somatic Scales that are worded the same way. (Item 28 reads as follows: *I am bothered by an upset stomach several times a week* and Item 59 reads as follows: *I am troubled by discomfort in the pit of my stomach every few days or oftener*).

An interesting finding was that the Critical Item Scale of Health Concerns had a relatively large positive correlation with Family Problems (Content Scales). This possibly means that Africans tend to complain with physical symptoms when they are experiencing family-related problems, in order to get attention (Westaway &



Wolmarans, 1992). In the researcher's experience, this is commonly found in an African setting.

The Content and Critical Item Scales that deal with anxiety had positive and relatively high correlations with the Content and Critical Item Scales dealing with depression. These results support other research findings that there is a close relationship between depression and anxiety (Global Alliance of Mental Illness Advocacy Network, 1988).

It furthermore appears that there is a relationship between both anxiety and depression on the one hand, and somatisation on the other hand. This conclusion is based on the finding that the Content and Critical Item Scales that deal with anxiety and depression, correlated with the corresponding scales that deal with health and somatic preoccupations. Although physical symptoms did not feature strongly in this study, these findings suggest that somatic symptoms cannot be ruled out completely from depressive conditions.

The overall pattern of correlation between anxiety, depression and somatic preoccupations confirm, on the one hand, that these variables are, as would be expected on theoretical grounds, related to each other. However, it also provides evidence that the MMPI is sufficiently valid and reliable in its measurement of these variables that theoretically expected relationships be found.

### **7.3.7 Conclusion**

The MMPI might be useful for non-clinical cases, where people are motivated and able, on a cognitive and emotional level, to complete the test. However, in a clinical setting there are multiple reasons that can render the MMPI invalid and unreliable.

## **7.4 THE BDI-II**

For the BDI, various factor solutions were examined but none of these, except the one-factor solution, rendered an interpretable factor structure. In a one-factor

solution, all items had factor loading larger than or equal to 0.30, and an overall Alpha coefficient of 0.87. All the items of the BDI showed good item-total correlation, which ranged between 0.38 and 0.67. These results suggest that a single factor of the BDI was able to account for all the depressive symptoms.

To determine construct validity, according to Kerlinger and Lee (2000), it is required to define constructs in terms of other constructs. This is essentially what factor analysis does, in that it determines which items measure the same thing, and to what extent they measure what they are supposed to measure. The results of the factor analysis thus render evidence of the construct validity of the BDI. This, together with the acceptably high reliability coefficient, leads to the conclusion that the BDI-II is a valid and reliable instrument, which can be used to identify with reliability depression in African communities.

The revised BDI-11 also has a closer fit with the DSM- IV and to the extent that it is used to assess the intensity of depression in-patients, it can be used in addition to a diagnosis based on the DSM-IV.

The mean score obtained was 31.38. More than half of the patients (55.56%) obtained scores between 29 and 63, which relates to the category of severe depression. This shows that most of the patients in this sample were between the levels of high moderate and low severe depression.

A Mann-Whitney U-test was performed to compare the scores of males and females, but no significant gender differences were found. There was also no significant correlation between age and BDI scores. Thus, the BDI-II did not appear to function differently in terms of gender and age.

## 7.5 THE RORSCHACH INKBLOT TEST

### 7.5.1 The Depression Index (DEPI)

#### *7.5.1.1 Mean score, age and gender*

The mean score on the DEPI for the total sample was 3.43 ( $s=0.76$ ), with a total possible score of 7. The cut-off score for the presence of depression, are five indicators. Taking into consideration that the patients had been diagnosed as depressed, this means that the DEPI does not accurately identify depression in all instances where this condition is present.

Only 15 (9.26%) of the patients met the criterion of the presence of five or more indicators on the DEPI. The understanding of these findings is found in Exner's explanation of false negatives (Exner, 1993)

This means that a DEPI of four or less may reflect important components of depressive mood states. A DEPI of less than five is meaningless as an index of depression, as it provides no information whatsoever concerning whether or not an individual can be diagnosed as depressed or not. False negative findings with DEPI are common. Exner (1995) advises clinicians to think about the probable presence of serious Affective Disorder when the DEPI score is elevated. He however goes on to advise that clinicians should avoid dismissing the possibility of Affective Disorder, only on account of the DEPI being less than 5.

A Mann-Whitney U-test was performed to examine gender differences, but there were no significant differences between the mean scores of men and women on the DEPI. There was also no significant correlation between age and the DEPI. These results imply that the DEPI is not biased to identify depression in terms of a particular gender or age group.

### 7.5.1.2 DEPI Indicators with high frequencies

In the sample, the following DEPI indicators had high frequencies:

**The Egocentricity Index [ $3r + (2)/R > .44$ ] AND [ $Fr + rF = 0$ ] OR [ $3r + (2)/ R < .33$ ]**

The Egocentricity Index is used to estimate self-concern and self-esteem. There were a very high number (95.7%) of the respondents who met the criteria as mentioned above. However, only five patients gave either a Fr or rF response in the context of an overall low Egocentric Index that contributed to this indicator. If the Egocentric Index is low, in the absence of reflection responses, it means that the person regards him or herself in a negative light compared to other. If the Index is lower than .33, the person is likely to neglect him / herself and maybe suicidal.

This reflects a negative self-schema, i.e. a negative cognitive representation of oneself. According to Clark et al. (1999), according to cognitive theory, schemas have content and form which are sometimes problematic, as they tend to contain chronic misconceptions, distorted attitudes, invalid premises and unrealistic goals in a form of which is inflexible, closed, and impermeable. For instance, a specific situation or stressor that would be expected to lower self-esteem might activate the depressive schemas in vulnerable individual. Once activated, the schemas sensitive to depression are activated causing the negative automatic thoughts and cognitive errors mentioned above. The cognitive theory considers schemas, modal activation, selective cognitive processing and states of consciousness and attention, as important aspects of a cognitive formulation of depression (Clark et al., 1999).

The low Egocentricity Index, together with the absence of reflection responses, could further imply that the patients were less concerned with themselves, and perhaps more concerned with other people. The particular group of respondents who participated in the study have been inclined to carry the burden of others, by putting the blame on themselves, as a way of protecting their loved ones. This could be related to

communolastic values, such as maintaining harmonious relationships, rather than becoming preoccupied with oneself and putting one's own interest first. Poho (2001) describes the importance of communolastic values in African society, and states that there is a persistence of such values among educated Africans. This interpretation links with the finding that one of the major stressors the patients experienced, related to disturbed interpersonal relationships, especially the relationship with a spouse and other family matters.

In contrast to the findings on the Rorschach, the patients tended not to report problems regarding their self-esteem during interviews. Earlier in this chapter, the latter finding was interpreted as a possible conscious attempt by the patients to avoid feelings of shame. The Rorschach findings point towards a negative self-schema. It thus appears that the Rorschach identifies aspects in the psychological make up of people, which may not be readily apparent in how they present themselves during an interview, and this renders support for its use in the diagnosis of depression among Africans.

In the context of an overall low Egocentricity Index that contributed to this indicator, the interpretation of these findings shows that many subjects were exclusively presenting with excessive preoccupation with the self and had tendencies of being self-centered or egocentric. Being preoccupied with the self may be a good sign that the person has a good self-esteem. If the Egocentricity Index is low, in the absence of reflection responses, it means that the person regards him or herself in a negative light compared to others. If the Index is lower than .33, the person is likely to neglect him-/herself and may be suicidal.

If the index is above .44 and there is no reflection, it signals an unusually strong concern with the self, which could lead to a neglect of the external world. This is often found with depressed patients. More often, such people have serious conflicts about their self-image and their self-value. When this happens, subjects show extreme mood swings and become dysfunctional because they are unpredictable.

The overall performance on these variable shows that many respondents had strong concern of self, self-conscious and focused on themselves in an elevated dysfunctional manner. In depression this manifests as extreme self-criticism and self-blame. It reflects a negative self-schema, i.e. a negative cognitive representation of oneself. According to Clark et al. (1999), on cognitive theory, schemas have content and form which are sometimes problematic, as they tend to contain chronic misconceptions, distorted attitudes, invalid premises and unrealistic goals in a form which is inflexible, closed, and impermeable. For instance, a specific situation or stressor that would be expected to lower self-esteem might activate the depressive schemas in vulnerable individuals. Once activated, the schemas sensitive to depression are activated, causing the negative automatic thoughts and cognitive errors mentioned above. The cognitive theory considers schemas, modal activation, selective cognitive processing and states of consciousness and attention, as important aspects of a cognitive formulation of depression (Clark et al., 1999).

A possible explanation for this is that the particular group of respondents who participated in the study could have been inclined to carry the burden of others, by putting the blame on themselves, as a way of protecting their loved ones.

#### **Affective ratio (Afr < .46 ) or Blends < 4**

This indicator was present in virtually all the protocols (99.4 %), which means that the majority of the subjects gave very few responses to the last three chromatic cards. In the present study, 73.68% of the patients had an Afr value < 0.46. According to Exner (1993), a marked tendency of subjects to avoid emotional stimuli is indicated when the value of Afr is below average. Such people are usually uncomfortable around emotional stimuli and as a result they often become socially constrained or isolated, as opposed to being willing to mingle and socialise with others. Depressives may chronically experience these symptoms, and it is commonly associated with difficulty to control emotions.

Being very constricted and less socialising may be a way of maintaining control in unfamiliar situations, and it is possible that the unfamiliarity of the patients with the situation in which they completed the test, contributed to the Afr score. In this case patients were put in the program on the first day of contact with clinicians, who were unfamiliar to them. It is also a common symptom of depression to avoid social interaction and to remain very quiet. The latter can be associated with motor retardation found in depression.

In the present study, 99.3% of the patients had less than four Blends. A limited number of Blends, especially in the protocol of an adult, is a serious negative sign of psychological constriction and this indicates that the person is less sensitive to and aware of him or herself and the environment. It may also suggest a less complex person psychologically.

**Co-operation Movement Response (COP < 2) OR the Isolation Index ( $[Bt + 2xCL + Ge + Ls + 2xNa] / R > .24$ )**

There was a high frequency (99.4%) of respondents in whose protocols this indicator was present, in other words, the majority of the subjects either had a COP score of less than two or an Isolation Index greater than .24 in their protocols. In the present study, 99.35% of the patients did not give any COP responses. The variables in the Isolation Index occurred less frequently, and the protocols in which they were absent, ranged between 30.92 and 94.77%. It was thus mainly due to the absence of the COP responses that this criterion was met, although the Isolation Index also contributed.

Few COP responses suggest that patients feel threatened by social interaction and reluctant to engage themselves in social interaction. They are negative towards social relationships, feel isolated and have tendencies for low self-esteem. Subsequently, they withdraw and become unwilling to participate in group-interaction. This behaviour may be influenced by the patients' depressive condition. Depressed patients often avoid social contact and feel inadequate to handle such situations. Being new in a place is sometimes likely to restrict social interaction. This often occurs in strange

places, when one is not sure of how to behave in a particular situation. Patients in this study were given the Rorschach on their first day of admission and it is possible that the environment was alien to them, which could have contributed to their minimal social interaction.

### ***7.5.1.3DEPI Indicators with low frequencies***

#### **Vista and Form Dimension ( $FV+VF+V > 0$ ) or ( $FD > 2$ )**

Twenty nine percent of respondents met the criteria for the Vista and Form Dimension in their protocols. Subjects who meet these criteria are expected to have the tendency to handle feelings of anxiety internally, using avoidance as a defence. They keep a distance from problems by introjecting negative feelings and blaming themselves. Excessive guilt feelings are likely to occur, turning the depressed person into being potentially suicidal.

Although self-inspection is acceptable when people attempt to develop a self-image, the suggestion is that unusual self-inspecting behaviors are taking place as soon as there are more than two FD responses, or if Vista responses are present. The results show that none of the subjects had FD responses in their protocols. In the case of the 29% of patients, who met this criterion, it was therefore due to Vista responses. These results exclude pathological self-inspection of subjects.

On the other hand, in the case of 71% of the respondents, this indicator was absent. This means that they did not have either Vista or FD responses in their protocol. This suggests that most respondents were not preoccupied with themselves and had not lost interest. A possible reason for this is that relationship problems, especially within marital relationship, was an important stressor in their lives and formed the reason for their consultation. The patients were thus not focused on themselves, but on finding a solution for a problem.



### Colour Shading Blends > 0 OR (S > 2)

When this indicator is present in protocols, it means that the subjects have mixed feelings that prevent them from enjoying life. It can also mean that they are inclined towards negativism, oppositional tendencies, anger and aggression. These symptoms are often found in patients with suicidal tendencies.

In this study, this variable cluster was endorsed by only 6.8%. The S variable greater than 2 was positively endorsed by only 3 subjects. According to Exner (1993) the proportion of S responses in the total protocol indicates the effort of being devoted to defence of autonomy. If S is less than two, it should not be regarded as significant but rather as indicating a natural form of self-assertiveness. If the value of S is 3 or more, it might indicate hostility from situational related negativism. Elevated S responses can indicate that there will be a detrimental effect on the formation of harmonious social relationships due to excessive anger and hostility.

The interpretation of these results indicates that many respondents did not have ambivalent feelings or confused emotional experiences, as can be seen from their low Shading Blends. This is consistent with the presenting symptoms, where only 3.24% of the symptoms related to feelings of confusion, and the central theme of the *depressive symptoms* was low mood, associated with emotional lability, worry and dejection. Confusion does not often occur in depressed patients and in this case the findings can be used to confirm that the subjects in this study were experiencing classical symptoms of depression.

The few S responses in their protocols are indicative of people who do not present with excessive anger, hostility or negativism that would be destructive for social relationships. This is congruent with the finding that anger and frustration did not feature prominently in the presenting symptoms, and that one of the main stressors in their lives, and reason for referral, related to disturbed family relationships, which they wanted to mend. Implicit in this is the potential capacity to form adequate relationships. Low S-scores should not be regarded as an indicator of pathology, since

it could also be related to a natural self-assertiveness. Since only a few patients obtained a positive score on this variable, it appears that most of the patients had a good sense of self-assertiveness. However, the findings should not be taken as conclusive until other variables have been explored.

The absence of ambivalent feelings and the implied potential to form harmonious social relationships could imply that there was a lower tendency towards suicide among the respondents.

**Morbid Content Responses and Ideation ( $MOR > 2$ ) or Intellectualisation Index ( $2xAB + Art + Ay > 3$ )**

The MOR code is used for any response in which an object has painful connotations and identified by either of two classes of characteristics:

- (a) where the object is identified as dead, destroyed, ruined and spoiled, injured or broken; for instance, a broken mirror or a dead dog;
- (b) when an object is attributed a dysphoric feeling e.g. a gloomy house or unhappy person.

This is a special score derived from dealing with depressed patients and it can also be used as a suicide indicator. Depressives commonly present three or more MOR content responses. If MOR is greater than two, the thinking of the subject is marked by pessimism about positive outcomes in relationships. Such people are negative and pessimistic about their future. Suicide is also suspected in such cases.

Depressives commonly present three or more MOR content, whereas schizophrenics, people with character problems and those who are not depressed, present less MOR content responses.

Very few respondents (4.3%) obtained a positive score on this variable. Only two patients had morbid responses. In the case of the remaining 3% who had a positive score on this variable, it was due to the Intellectualisation Index. This means that the patients in the sample were on the whole not pessimistic about positive outcomes in

relationships or about their future. Correspondingly, this means that a large number of the patients were not suicidal.

According to the Structured Questionnaire, there were only a few suicidal patients. This finding also coincides with the results of the Suicidal Constellation, where none of the respondents scored positively on the criterion of  $MOR > 3$ . On the MMPI, the mean score on the Depressed Suicidal Ideation Scale was relatively low. Related to this, a low percentage of respondents scored positively on the Vista and Form Dimension, which relates to introjection of negative feelings. It must also be born in mind that 22.84% of the patients consulted the psychologist through self referral and that 46.29% came to the practice on the advise of either a family member or a friend. This could reflect that they hoped to find a solution to their problems, which in turn partly confirms the findings on the Rorschach that in general, they were not pessimistic about positive outcomes in relationships or about their future.

**(Sum Shading > FM + m) or (Sum C' > 3)**

This indicator was present in 8% of the patients. In none of the protocols, Sum C' was greater than three. Thus, when this indicator was present, it was due to the sum of the shading responses being larger than the sum of the FM and m responses.

The presence of larger numbers of FM and m responses in a protocol represents that the subject uses more primitive methods to deal with the world. A high FM score is related to behavioural dysfunction, where a person tends to lose concentration and make poor judgements. The mental activity to which FM scores are related, implies a person with a lack of control, who feels helpless. Similarly, the shading responses in a protocol reveal severe feelings of helplessness or paralysis in a stressful situation. Thus, if the sum of shading responses is greater than the sum of animal and inanimate movement, the person experiences feelings of helplessness. He/she may feel paralysed in stressful situations where he/she is confronted by impulses, which strive for the immediate gratification of forces that are beyond control (Exner, 1993).

## 7.5.2 The S-constellation (suicide potential) (S-CON)

### 7.5.2.1 Mean score, age and gender

The mean score on the S-CON was 5.33 ( $s=1.1$ ) with a total possible score of 12. The majority of people were not found to have suicidal behaviour according to the S-CON. In total, four patients met the criterion of eight or more indicators on the S-CON, which indicates significant suicidal behaviour. This however, does not mean that the possibility of suicidal behaviour should be ruled out, but it is rather an indication for a more comprehensive investigation using a battery of tests.

Consistency is maintained by the results of the Structured Questionnaire that show only 21 of the 162 patients reporting that they previously tried to commit suicide. In earlier literature (Asuni, 1967; German, 1972; Prince, 1968) it was also reported that suicide does not often occur in African communities. In the current study parasuicide also occurred in only 12.96% of the patients. This finding is therefore comparable and consistent with the previous studies on suicide.

One person who obtained a score of at least eight on the S-CON, had a score lower than five on the DEPI. Three people who met the criterion of eight or more on the S-CON, also had scores of six on the DEPI. The latter means that if a person meets the criterion of the cut-off score on the S-CON, he/she is also likely to be depressed. However, the one exception mentioned above means that an indication of suicide may not be associated with a high score on the DEPI. This supports the view of Exner (1993), that there is a high occurrence of false negatives on the DEPI and the S-CON.

There was no specific uniform pattern in the endorsement of the different variables in the S-CON.

A Mann-Whitney U-test was done to examine gender differences, but there were no significant differences between the mean scores of men and women on the S-CON. There was also no significant correlation between age and the S-CON. These results

imply that the S-CON is not biased to identify suicide in terms of a particular gender or age group.

The following variables of the S-Constellation also appear in the Depression Index. The trends in the scores on the S-CON are very similar to the DEPI, and the same interpretation given above would thus also apply here:

- (a) Vista and Form dimension
- (b) Colour-Shading Blends
- (c) Egocentricity Index
- (d) Morbidity content
- (e) White Space (S).

A more elaborated interpretation of the remaining S-CON variables is given below:

#### **7.5.2.2 S-CON indicators with high frequencies**

The following indicators on the S-CON had high frequencies:

##### **Egocentricity Index**

This index has been discussed earlier.

**Es > EA**

This relates to stimulus demands exceeding the available resources.

As was indicated earlier in this chapter, the patients experienced various stressors, including problems in interpersonal relationships, problems at work and financial problems. As a result of their inability to deal with these demands, they became depressed and consulted a psychologist. It is significant to note that the Rorschach identified this inability to cope, and this provides evidence in favour of its continued use in the diagnosis of depression among Africans.

**X + % < 70%**

The extended form quality criterion was very high, with 88.89% of the respondents meeting the criterion of  $X + \% < 70\%$ . The high percentage of patients, who got low form quality scores, implies that they were responding inappropriately to their various problematic situations. Failure to maintain control over ideational impulses, or failure to control affective experiences, also characterises people with  $X + \%$  less than 7%.

### **P < 3 or P > 8**

A low P may signal either an inability or unwillingness to respond in the most obvious or conventional manner. In practical life this may translate to an inability to deal with problems in terms of an obvious solution. It is also possible that culture contributes to the responses and that there might be cultural variations in popular responses (Exner, 1993). A low P thus does not necessarily signify poor reality testing, but it may also signify more serious pathology or unco-operativeness. Whether it signifies severe pathology, depends on the presence of other indicators. A high P may indicate an orientation towards the more simplistic, correct and conventional manner.

The results show that 16.34% of subjects did not have P responses to their protocols. Many subjects (72.55%) had less than three P responses. There was no subject with more than eight P responses in his/her protocol. Although the patients in the present study suffered from depression, severe pathology in the form of psychosis was excluded by the manner in which these patients were selected. It is thus more probable that the low P may reflect the patients' inability to deal with situations in a conventional, obvious manner, which resulted in their depression. It is also possible that Africans may not be very open about themselves, and that their failure to produce what was expected, was due to the alien testing situation.

### **R < 17**

This could imply defensiveness, a depleted energy level, and lowered psychomotor functioning. The results show the majority of subjects with responses had between 14 and 16 responses. Of these subjects, 50% had 14 responses, 12 % had 15 responses and 7% had 16 responses on their protocols. There were only 3% of subjects with 17 responses and 13% had responses of 18 up to 38. From these results it can be deduced

that the majority of patients were slowed down and less vigorous. These findings are suggestive of fatigue in the subjects, as a result of depression that caused depleted energy.

### **7.5.2.3 S-CON indicators with low frequencies**

The following indicators on the S-CON had low frequencies:

$$\mathbf{FV + VF + V + FD > 2}$$

This implies the absence of tendencies to handle anxiety introversively, distance oneself from problematic situations, engage in painful introspection and be critical of oneself.

There were no FD responses, and thus the occurrence of Vista responses were responsible for instances where this variable was present. There were 10 occurrences of FV and two occurrences of VF responses.

$$\mathbf{\text{Colour} - \text{Shading Blends} > 0}$$

This implies the absence of mixed feelings that prevent people from enjoying themselves.

$$\mathbf{MOR > 3}$$

This implies the absence of negative and pessimistic views about the future. There were only two subjects who had MOR responses in their protocols. This links with the findings of the Structured Questionnaire, that only a few patients regarded their future so bleak that they tried to commit suicide.

### **CF + C > FC**

This implies the absence of lability of emotions and thus a possibility of excessive control of emotions.

### **S > 3**

The majority of subjects (78%) had no S in their protocols. This implies the absence of negativism or oppositional tendencies that could affect reality, as well as an absence of tendencies towards anger and aggression. The majority of subjects (78%) had no S responses in their protocols. Only two subjects had more than three S responses in their protocols. This finding suggests that many of the subjects did not have aggressive tendencies, and where S responses were present, it was more indicative of self-assertiveness. It was also evident from the Structured Questionnaire that the patients were not inclined to aggressive and oppositional behaviour.

### **(P < 3 or P > 8)**

This has been discussed earlier.

### **Pure H < 2**

Pure H is a variable that depicts a percept of a whole human form. A low H relates to social withdrawal, as is found in depression. A significantly low H has been found in schizophrenics. The H is an effective index to identify subjects who have withdrawn from social contact.

Pure H often has the same pathological significance as M. When it is scarce or not found in the responses; it indicates a distorted view of others. If the quality of Pure H and that of M is poor or inadequate, M will increase the likelihood of a pathological withdrawal from interpersonal interest and activities.



The results of this study showed that 55.56% of the patients met the criterion of Pure H < 2. To examine the occurrence of Pure H and M responses among the patients, a more relaxed criterion was used in that attention was not only given to the occurrence of less than two responses, but also to the occurrence of at least two responses. In this category 127 subjects had two or less Pure H, whereas 138 had M responses of two or less.

These findings show limited numbers of either Pure H or M responses. The interpretation for this outcome is suggestive that subjects have maladaptive social relations. It indicates that the subjects have tendencies of withdrawing from social interpersonal relationships. This feature is another very important symptom of depression. On the other hand, in the African community it is sometimes traditional not to open up to strangers. A low rate of H in this regard may therefore be associated with African cultural practices that restrict social openness, rather than with depression alone.

**R <17**

This has been discussed earlier.

## **7.6 CORRELATION BETWEEN VARIOUS SCALES**

To examine concurrent validity, correlations were calculated between the various scales, i.e. between the BDI, DEPI, S-CON, and the relevant MMPI Critical Item Scales (Acute Anxiety State, Depressed Suicidal Ideation, Family Conflict, Somatic Symptoms).

Although there was a positive correlation between the BDI and the DEPI, this was low and statistically non-significant. The BDI measures mostly the affective and cognitive aspects of depression, and with regard to physical aspects of depression it focuses only on sleep patterns, appetite, energy levels and sexual function. Similarly, the DEPI also measures affective, cognitive, attitude and physical aspects of depression. Basically the same broad categories are thus measured by different means, and one would therefore expect a strong positive correlation. However, there are also differences in the way in which these two instruments measure how depression is experienced. For example, the BDI asks specifically about a loss of sexual interest, whilst this does not feature in the DEPI.

In addition, it must be borne in mind that the BDI is a structured scale, whereas the Rorschach is based on projection and perceptual processes.

The Rorschach structural variables (that often identify somatic concerns) are frequent MOR responses, which signify bodily concerns of the individual, including that the body is weak, damaged or deformed, and vulnerable to physical harm, illness or deterioration. Anatomy (An) and x-ray (Xy) responses indicate an unusual preoccupation with the own body and the way it functions, but these content scores do not form part of either the DEPI or the SCON. Although both the Rorschach and BDI involve physical aspects, the dimensions measured by the two instruments are different.

It is possible that the participants in this study were not able to express themselves fully in the Rorschach. Responding to the Rorschach requires active participation and involvement in the procedure. In contrast, the BDI is structured and requires less effort from the respondent. These could have been contributing factors for the low correlation between the two measurements.

There was however a stronger positive correlation between the BDI and the Depressed Suicidal Ideation Critical Item Scale of the MMPI. A likely reason for these results could be related to items of the BDI sharing the same meaning as the items of the Depressed Suicidal Ideation scale of the MMPI. For instance, they both have items that relate to depressed mood, pessimism, suicidal thoughts, tearfulness, self-blame, tiredness and indecisiveness. Both the MMPI and the BDI are Structured Questionnaires, and the strong correlation of these two scales gives the impression that Africans are more responsive to structured items in measuring depression.

There are, however, also differences between the BDI and the MMPI, which are discussed next:

The MMPI contains an item that reflects a general difficulty to cope, namely: *Life is a strain for me much of the time*. There is no similar item in the BDI.

Whereas the BDI includes physical and cognitive aspects such as appetite, sleep, sex, level of energy, fatigue, and loss concentration, the Depressed and Suicidal Ideation Critical item Scale of the MMPI does not address physical and cognitive aspects of depression. Other aspects covered in the BDI, but not included in the MMPI, are irritation, agitation, past failures and feelings of guilt.

The DEPI had a relatively low, but statistically significant correlation with the Depressed and Suicidal Ideation Scale of the MMPI. The Rorschach was originally based on a psychodynamic model, and although Exner (1993) acknowledges the role that psychodynamic processes such as projection play in the test, he attaches a stronger cognitive-perceptual meaning to it. The Depressed Suicidal Ideation Scale, on the other hand, forms part of a test that was originally designed for the assessment of personality traits. The difference in the theoretical points of departure of the two instruments, could have contributed to the relatively low correlation that was found.

There was a statistically significant positive correlation between the BDI and the Acute Anxiety State scale of the MMPI. This correlation can partly be attributed to an overlap between the two scales with regard to items dealing with sleep disturbance, appetite disturbance, restlessness and agitation which are found in both tests. The correlation could also be attributed to the nature of the items on the MMPI which are included in the Acute Anxiety State scale: An inspection of the items dealing with sleep, appetite, restlessness and agitation shows that the language used in these items is clear and easily understandable. The correlation between the two scales also supports some literature (e.g. Global Alliance of Mental Illness Advocacy Networks, 1988) which report that anxiety is highly related to depression. The same explanation could be given for the positive, statistically significant correlation that was found between the MMPI's Acute Anxiety State and the DEPI.

There was a weak positive correlation between the DEPI and the S-CON, but this was not statistically significant. The S-CON also did not correlate significantly with any of the other scales. The relationship between the DEPI and S-CON can partly be

ascribed to the fact that there is an overlap of five items between the two measurements. However, it must be remembered that depression need not necessarily be associated with suicidal ideation, and that the S-CON also measures aspects that are not assessed by the DEPI. This could explain why the correlation that was found, was low.

There was a positive and statistically significant correlation between the DEPI and the Somatic Symptoms scale of the MMPI. This would be consistent with the view that depression is often associated with somatic complaints, and that the latter can also mask the depression (e.g. Westaway & Wolmarans, 1992).

## **7.7 COMPARISON BETWEEN THE BDI, MMPI AND THE RORSCHACH**

In view of understanding why the expected correlation was not consistently found between the three measurement instruments, they were compared with regard to the similarities in items or variables measured. This comparison is described next:

### **Sadness**

- BDI: *I feel so sad that I can't stand it.*
- MMPI: *Most of the time I feel blue/ I brood a great deal / most of the time I brood / I am happy all the time / I very seldom have spells of blues.*
- Rorschach: The key indices that characterised depressed mood are a greater frequency of shading responses than FM and m responses. More C' responses reflect extreme unpleasant internalised affect with dysphoric overtones. The presence of Colour Shading Blends reflects mixed feelings that prevent people from enjoying themselves. The Affective ratio is always low when depressed people experience difficulties to deal with emotions. A blend of shading indices e.g. C', Y, V or T, suggest that the individual is experiencing considerable dysphoria.

### **Pessimism**

- BDI: *I feel my future is hopeless and will only get worse.*



- MMPI: *The future looks hopeless.*
- Rorschach: Numerous MOR responses suggest a pessimistic outlook to life.

#### **Past failure**

- BDI: *I feel I am a total failure as a person.*
- MMPI: none.
- Rorschach: none.

#### **Loss of pleasure**

- BDI: *I don't get pleasure from the things that I used to enjoy.*
- MMPI: none.
- Rorschach: none.

#### **Feelings of guilt**

- BDI: *I feel guilty all of the time.*
- MMPI: none.
- Rorschach: The presence of one or more V responses indicates a painful internal feeling and may often reflect guilty feelings.

#### **Punishment feelings**

- BDI: *I feel I am being punished.*
- MMPI: none
- Rorschach: none.

#### **Self Dislike**

- BDI: *I dislike myself.*
- MMPI: *I don't seem to care what happens to me.*
- Rorschach: none.

#### **Self criticalness**

- BDI: *I blame myself for everything that happens.*



- MMPI: *I often feel that I am not as good as other people / At times I feel that I am not as good as others. I have made lots of bad mistakes in my life.*
- Rorschach: The presence of V responses reflects negative attitude towards self, the world and the future. Frequent FD responses identify painful introspection and being critical of the self. A low Egocentricity Index or a high Egocentricity Index in the absence of reflection is found when the depressed person compares him or herself unfavourably with other people.

### **Suicidal thoughts or wishes**

- BDI: *I would kill myself if I had the chance.*
- MMPI: *Most of the time I wish I were dead / No one knows it but I have tried to kill myself. / Lately I have thought a lot about killing myself. / I have recently considered killing myself.*
- Rorschach: All S-CON Indicators.

### **Crying**

- BDI: *I cry over every little thing. / I feel like crying but I can't.*
- MMPI: *I cry easily.*
- Rorschach: none.

### **Agitation**

- BDI: *I am so restless that I have to keep on moving or doing something.*
- MMPI: none.
- Rorschach: none.

### **Loss of interest**

- BDI: *It's hard to get interested in anything.*
- MMPI: *My daily life is full of things that keep me interested. I have had periods of weeks, months where I couldn't take care of things.*



- Rorschach: An elevated Isolation index and limited number of co-operative movement (COP) responses have been seen in depressed patients who have lost interest in other people or social interactions.

#### **Indecisiveness**

- BDI: *I have trouble making decisions.*
- MMPI: *I have difficulties in starting to do things.*
- Rorschach: none.

#### **Hopelessness and worthlessness**

- BDI: *I feel utterly worthless.*
- MMPI: *I certainly feel useless at times / I usually feel that life is worthwhile. / These days I find it hard not to give up hope of amounting to something.*
- Rorschach: none.

#### **Loss of energy**

- BDI: *I don't have enough energy to do things.*
- MMPI: *I have had periods of days and months when I couldn't take care of things because I couldn't get going.*
- Rorschach: On the Rorschach, a low number of responses could relate to loss of energy; however, in contrast to the SCOP, the DEPI does not make provision for this.

#### **Changes in sleeping patterns**

- BDI: Sleeping either more or less.
- MMPI: none.
- Rorschach: none.

#### **Irritability**

- BDI: *I am irritable all the time.*
- MMPI: none.

- Rorschach: Frequent use of White space indicates anger and irritability, which often accompanies depression.

#### **Changes in appetite**

- BDI: Appetite either more or less.
- MMPI: none.
- Rorschach: none.

#### **Concentration difficulties**

- BDI: I find I can't concentrate on anything.
- MMPI: none
- Rorschach: none

#### **Loss of interest in sex**

- BDI: *I have lost interest in sex completely.*
- MMPI: none.
- Rorschach: none

### **7.8 CONCLUSION**

This chapter provided an interpretation of the results. In chapter eight, the summary and conclusions, implications, evaluation of the study and recommendations are presented.



## CHAPTER 8

### CONCLUSION

#### 8.1 INTRODUCTION

Depression continues to be the leading psychiatric illness afflicting people around the globe. However, in Africa, different opinions have existed regarding its prevalence as compared to the West. This conclusion refers to earlier researchers who brought contradicting results to the fore, in revealing that the prevalence of depression in Africa was rare. But subsequent studies disproved those findings when they revealed that depression in Africa was as common a phenomenon as in other parts of the world. The differences in the views of various researchers about the occurrence of depression, was due to the clinical picture of depression among African patients. The researchers' findings revealed that Africans, when depressed, often complained only of physical symptoms, which lead to misdiagnosis of depression, whereas their Western counterparts would, in addition, complain of emotional problems. In the end the impression created was thus that Africans did not suffer from depression when in reality this was not the case. Africans commonly experience the same emotional symptoms like people in the West.

The above findings of early researchers are disputed by the results of this study, which show that the situation of depression in Africa has taken a different direction altogether. Urbanised and educated African depressives are more psychologically sophisticated and have the ability to express their depression without putting somatic complaints in the foreground. The physical symptoms of the patients who participated in this study, did not feature prominently. This could be ascribed to the patients of this study staying in urban areas and also having higher levels of education. These findings could be different from rural, uneducated Africans who suffer from depression.

It is the belief of the researcher that understanding the phenomenon of depression in the African context needs vigorous research and by observation, this recommendation is far from being reached. It is therefore imperative that methods of identifying depression be introduced so as to curb the confusion regarding its existence among Africans. Otherwise, problems of misdiagnosis will continue to afflict Africans, with increased treatment costs and a prolonged suffering.

## 8.2 SUMMARY OF THE STUDY

The findings of this study are consistent with studies (e.g. German, 1987) that found that the manifestation of depression in Africa is similar to what is found in Western countries. The present study sheds light on the reasons for the confusion of the past, and this is explained below:

The majority of the symptoms reported by the patients were of an emotional nature, and the primary complaints were not physical symptoms. This is viewed as one of the most significant outcomes of this study. Early researchers (e.g. Jegede, 1979; Ndeti & Muhangi, 1979) emphasised the common occurrence of physical symptoms, such as headaches and chest problems, in depression among Africans. The chest problems can be related to *moriti wa letswele*, which literally means 'shadow of the breast' and refers to an anxiety-depressive state, characterised by pain in the area of the left breast (Pretorius, 1993). In contrast to this, the present study shows a shift away from traditional indigenous understanding of illness, and the patients responded without taking recourse to traditional views. This lends support to the limited research (e.g. Jegede, 1979; Daynes, 1984), that has been reported about the prominence of emotional symptoms in depression among especially urbanised and educated Africans. These symptoms include feeling stressed, depressed, guilty, rejected, lonely, disappointed, demotivated, hurting, worried, a loss of interest and feeling regretful. Stress in this case was explained by the patients as being unable to cope with demands and being depressed.

The same sophistication was reflected in the pattern with regard to the sources of referral. More than two-thirds of the patients were referred either by family or friends, or were self-referred, thus indicating an awareness of and an understanding into the nature of depression and its appropriate form of treatment.

Patients also reported that they felt optimistic and encouraged that someone had identified their problem. These findings show the importance of social support for a depressed person.

In the spontaneous presentation of symptoms, only a few patients made remarks relating to poor self-esteem. This goes against the view that depressed patients commonly lack self-confidence. A possible explanation could be that the negative views about the self are related to shame and may possibly not be easily expressed in a Black community. As a result, reporting on such feelings are avoided as a way of preserving their dignity. However, when they were specifically asked how they felt about themselves, they mentioned a large number of negative feelings.

Although suicide has been reported as a common feature among depressives, the results in this study are consistent with previous studies (e.g. Asuni, 1965, 1967) in that suicide is not common among Africans. The methods of attempted suicide reported by the patients were however, found to be serious and aggressive. These included in line of priority, the ingesting of poison, an attempt to hang the self, the shooting or stabbing of the self, and the throwing of the self in front of a moving bus.

Patients mainly ascribed the causes of their illness and stressors to interpersonal relationship difficulties with their spouses. The second largest category of stressors was work-related, followed by financial problems. As most respondents were married, it thus appears that the respondents were caught in family situations, which they could not effectively deal with. Traditional causal attributions, such as witchcraft, featured very scarcely among the patients. The most likely explanation in this is that Africans seem to be moving away from the indigenous superstitious beliefs and starting to rely

more on modern medicine. This is an important contribution in the understanding and treatment of depression and in compliance with treatment by Africans.

The reported work-related and financial stressors indicate that work and finances play an important role in their lives. It appears that the patients who experienced work and financial stress could not adequately cope with these. Patients reported that when they were depressed, their productivity declined and they experienced problems with regard to concentration, coping with work, interest in work and relationships.

The three measuring instruments used in this research for determining validity and reliability in assessing depression among Africans are the BDI -11, MMPI- 2 and the Rorschach.

The results show that of the three instruments, the BDI is the most valid and reliable instrument for identifying depression in the Black population. Patients were consistently able to understand the test instructions and items of the BDI.

The BDI, together with a psychiatric diagnosis of depression based on the DSM-IV, were used for the selection of patients. However, in spite of this, the MMPI and the DEPI did not prove to be effective for the diagnosis of depression. The MMPI tended to give the majority a diagnosis of Schizophrenia or Personality Disorders and only a few patients were diagnosed with affective disorders. The diagnosis of Schizophrenia was especially surprising, as psychotic patients were not included in the study. The impression by patients was that the MMPI was too long, and the language too difficult and complex. The conclusion made from these results show that the MMPI cannot be used to diagnose depression independently and that it consequently is not culture friendly with regard to Africans. It causes an unnecessary labeling of people as being schizophrenic or as having Personality Disorders which is a most radical diagnosis of psychiatry, which could have serious social and treatment consequences. These results cast doubt on its use among the Blacks as a singular instrument when the diagnosis of depression has to be made.

With regard to the patients' impressions of the MMPI, it was notable that most patients enjoyed completing the test and that they had found it useful. Several suggestions on how to improve the use of this instrument were however made by these patients. A significant number felt that the MMPI was too long and too boring, and that the language was too vague and complex. These patients suggested that the language be simplified and the administration of the test be divided into two sessions.

On the Rorschach, the majority of respondents did not appear depressed on the DEPI nor did they appear suicidal from the S-CON. However, exploring the variables independently presented an idea of how the respondents felt and operated psychodynamically. These results are consistent with Exner's view that the DEPI and the S-CON tends to give many false negatives which should not necessarily be regarded as signifying that depression is absent. The implications of the results show that the Rorschach is a very good instrument for therapeutic purposes to explore patients' psychological functioning. However, its results cannot be used in isolation to reliably identify depression without the assistance from other measures.

In the sample, the following DEPI indicators had high frequencies: Egocentricity, Affective ratio and COP Movement Response. These results indicate that the patients tended to regard themselves in a negative light compared to others, and were likely to neglect themselves, and avoid emotional stimuli, thus becoming socially constrained. The patients showed tendencies of feeling threatened by social interaction, reluctance to engage in social interaction, they felt isolated and had low self-esteem.

The following DEPI indicators had low frequencies: Vista and Form Dimension, Colour Shading Blends  $>0$  OR ( $S > 2$ ), Morbid Content Responses and Ideation ( $MOR > 2$ ) or Intellectualisation Index ( $2xAB + Art + Ay > 3$ ) and ( $Sum\ Shading > FM + m$ ) or ( $Sum\ C' > 3$ ). These results indicate that the patients were not inclined to pathological self-inspection or preoccupation with the self. They did not have ambivalent feelings or confused emotional experiences, and did not present with excessive and destructive anger, hostility or negativism. A low frequency of Morbid Content response means that the sample in general was not pessimistic about positive outcomes in relationships

and about their future, nor was there a large number of patients who were suicidal. Patients were also not characterised by feelings of helplessness. They did not feel paralysed in stressful situations where they were confronted by impulses, which strived for the immediate gratification of forces that were beyond their control.

The following indicators on the S-CON had high frequencies: The Egocentricity Index [ $3r + (2)/R < .31$  or  $> .44$ ],  $X + \% < 7.0$ ,  $Es > EA$  and  $P < 3$  or  $P > 8$ . This meant that the patients tended to regard themselves in a negative light compared to others, and that they were likely to neglect themselves. They experienced that stimulus demands exceeded their available resources and they would be inclined to respond inappropriately to their various problematic situations. Patients were found to be unable to deal with situations in a conventional manner due to a general slowing down and being less vigorous.

The following indicators on the S-CON had low frequencies:  $FV + VF + V + FD > 2$ , Colour – Shading Blends  $> 0$ ,  $MOR > 3$ ,  $CF + C > FC$ ,  $S > 3$  and Pure H  $< 2$ . These results imply the absence of tendencies to distance oneself from problematic situations, or to engage in pathological introspection and preoccupation with the self. Many respondents did not have ambivalent feelings or confused emotional experience and they showed an absence of negative and pessimistic views about the future. The results also indicated an absence of lability of emotions and thus a possibility of excessive control of emotions. An absence of negativism or oppositional tendencies that could affect reality testing, as well as an absence of tendencies towards anger and aggression and a natural form of self-assertiveness, were also evident from these results. There was a tendency of withdrawing from social interpersonal relationships.

Although there was a positive correlation between the BDI and the DEPI, this was low and statistically non-significant. Although there is an overlap between the dimensions of depression measured by these two instruments, there are two factors, which could have contributed to this low correlation. Firstly, there are differences in the aspects assessed by the two instruments. Secondly, responding to the Rorschach requires active participation and involvement in the procedure, whereas the BDI is structured, and requires less effort from the respondent.

There was a stronger positive correlation between the BDI and the Depressed Suicidal Ideation Critical Item Scale of the MMPI. A likely reason for these results is that both the MMPI and the BDI are Structured Questionnaires, and there is considerable overlap in the dimensions of depression that they measure.

The DEPI had a relatively low, but statistically significant correlation with the Depressed and Suicidal Ideation Scale of the MMPI. This is accounted for by the congruence between the aspects of depression that are measured by the two instruments, but the differences between them, as well as the differences between the methods of assessment, could have lead to the lowered correlation coefficient.

There were statistically significant positive correlations between the BDI and the Acute Anxiety State scale of the MMPI, and between the DEPI and Acute Anxiety State. This supports the view (e.g. Global Alliance of Mental Illness Advocacy Networks, 1988) that anxiety is related to depression. In addition, the correlation could also be attributed to an overlap in the content of the items in the BDI and MMPI, and the clarity and absence of ambiguity in the items of the Acute Anxiety State Scale.

There was a weak positive correlation between the DEPI and the S-CON, but this was not statistically significant. The S-CON also did not correlate significantly with any of the other scales. Although there is an overlap between the dimensions of the DEPI and the SCON, depression need not necessarily be associated with suicidal ideation. It must be taken into account that the S-CON also measures aspects not assessed by the DEPI.

There was a positive and statistically significant correlation between the DEPI and the Somatic Symptoms Scale of the MMPI. This is consistent with the view that depression is often associated with somatic complaints, and that these complaints may also mask the depression (e.g. Westaway & Wolmarans, 1992).

### 8.3 EVALUATION OF THE STUDY

In order for this study to make a contribution in supporting psychology as a scientific body, the strengths and weaknesses of this study should be evaluated. As far as was possible, impartiality was maintained throughout the study. This contributes to its credibility and its benefits for the profession of psychology. On the other hand, an evaluation of the limitations of this study will open opportunities for further research. By so doing, more questions relating to issues of mental health in the African community will be answered. Consequently this will contribute towards a mentally healthy community.

The aim of the study was to evaluate the adequacy of three measuring instruments for diagnosing depression among Africans. In order to achieve this goal, a Structured Questionnaire, the MMPI-2, BDI-II and the Rorschach were evaluated. For maintenance of consistency, all respondents were aged from 18 and above, urbanised and with Grade 12 or further educational qualification.

A systematic method of taking patients in the programme was followed by using exclusion criteria for that purpose. This resulted in all respondents of this study being in-patients and diagnosed with depression. The in-house psychiatrist further confirmed the diagnosis with the DSM-IV criteria. In order to avoid confusion as a result of the initiation of treatment, all instruments were administered on the first day of admission *before* the patients took their medication. Computer-assisted programs were used to generate results, which were then recorded on a coding sheet.

Before any statistical analysis was carried out, the approach was discussed between the researcher's supervisor, two senior statisticians of the university and the researcher herself. After the data was punched in, both the researcher and her assistants checked for wrong entries and corrected errors where necessary. In order to examine the possibility of conducting a factor analysis on the MMPI's Critical Item Scales, The MMPI Foundation in Minnesota was approached for advice.



The researcher brought more credibility to this study by way of her own background. As an African psychologist she was able to communicate with the respondents in their own language without using an interpreter. The information derived from patients was thus firsthand and this reduced errors during the interpretation. The researcher was born and bred in the rural areas and relocated to urban areas only after completing her studies. She therefore had experience of both Western and African approaches to health and illness, and she was thus in a position to follow the respondents' views of mental health and interpret their responses from a cultural point of view. All respondents were patients in her practice. The psychiatrist was an in-house psychiatrist and accessible at all times. Through this manner, consistency was maintained. The hospital where patients were admitted was furthermore situated in the same building as the practice of the researcher. It was therefore very easy to follow the programme of all the admitted patients.

A comprehensive literature review relating to issues of depression in Africa and abroad was carried out both locally and internationally. The aim here was to, on the one hand, identify whether there were any gaps in the existing literature and to, on the other hand, get supporting information for the study. Theories of depression, including the cognitive theory of depression and the psychoanalytic approaches to the understanding of depression, were explored.

Great effort was exerted to make sure that scientific procedures were followed in order to make the results of this study credible, reliable and valid, and precautionary measures were undertaken to prevent contamination by extraneous factors. This contributed to the validity of the results. This provides a sound basis for the results of this study to be applied during the diagnosis of depression in the African community.

Of all the respondents, 78% were employed. This study preferred subjects with occupational security – in order to exclude unemployment as a source of stressor. This move furthermore created an opportunity for this study to identify other stressors causing depression than the known factor of unemployment.

A sample of convenience was used. Although this was the only practical option to obtain respondents in the context of the present study, it also limited the kinds of people to whom the results could be generalised.

It could be argued that a control group consisting of a non-clinical sample should have been used to compare the results obtained from the clinical sample that was investigated in the study. Although it is acknowledged that this would have strengthened the design, it was decided not to include a control group. Since a non-random sample was used, the use of a control group would have required a matched-pairs design, which was not really practical in the context of the present study.

#### **8.4 IMPLICATIONS OF THE STUDY**

The implications of these results suggest that depression in Africa is changing its picture from what was initially suggested by earlier researchers. The explanation is that psychological sophistication of patients plays a major role in understanding and expressing the symptoms of depression. The same applies to other mental disorders, which seem to be changing with time.

Irrespective of the specific social context a person finds himself in, there will always be universal trends and there is thus no absolute cultural relativism. This also applies to the clinical picture of depression. For instance, there will always be physical complaints as part of depressive components irrespective of the cultural context. Consequently, when the clinical picture of depression changes direction, it is imperative that the methods used to diagnose depression will make provision to accommodate the prevalent symptoms and that it will be updated continuously.

The study shows that clinicians should be cautious in using only one instrument to diagnose depression. When this needs to be done, the BDI would be the most appropriate. The study shows further that there are risks in using only one method for diagnosing depression. An all-inclusive approach that is sensitive to the African context should rather be used. This should include both a clinical interview, as well as

standardised instruments. Especially if depression is detected at an early stage, it can contribute to secondary and tertiary prevention.

The DEPI did not prove to be very effective for the diagnosis of depression among Africans. This implies that instead of using it to diagnose depression, the relevant variables of the Exner scoring system should rather be used to gain a better understanding of patients, and this can then be used for therapeutic purposes.

In the course of the study, the researcher endeavoured to obtain information from governmental sources on the prevalence of different forms of mental disorders, and specifically depression. It was however found that there were no recent statistics available. Furthermore, the information that was obtained did not appear to be in accordance with the researcher's knowledge (based on wide experience in both rural and urban settings) on mental disorders in the African community. Considering that depression is such an important problem, inadequate information about its prevalence and the way it is manifested in African communities, could delay progress in managing mental health in Africa.

## 8.5 RECOMMENDATIONS

In the light of the results of this study, the following recommendations are made:

This study was conducted with a relatively homogenous group of people and the generalisability of the findings is limited hereby. It would be advisable to conduct further comparative studies, through using specific samples, which control for urban and rural differences, age, gender, and occupational status, to determine the extent to which the findings of this study may be applied to various contexts.

The present study did not detect that the traditional African culture plays a significant role in way in which depression presented in the sample. It is possible that comparative studies of different ethnic groups and of rural and urban Africans, could reveal that culture indeed does play an important role. Should this be the case, training regarding the role of culture should be included in the curriculum of all health clinicians. Aspects that could be relevant in this regard include indigenous belief systems regarding illness, healing practices, behavioural norms, values, religion, cosmological views about the nature of humanity and related issues.

In the present study, a distinction was not made between various forms of depression. Bipolar Disorder was also excluded from the study. It is recommended that future studies examine the usefulness of the MMPI, BDI and the Rorschach in the diagnosis of various forms of depression.

The study showed that family relationship problems played an important role in depression among people of whom the sample that was studied, is representative. However, since it was not the aim of this study to examine the *causes* of depression, it is not clear what the nature of these problems is. Studies to examine this could contribute to the prevention of complications, and the development of programs for community awareness designed for early detection and prevention.

## 8.6 CONCLUSION

The past thirty years has seen mental health professionals struggling to find out whether depression in Africa is similar to depression found in other parts of the world. The other question often asked was whether depression existed or not in the African community. The answers to these questions have produced vast differences of opinion among professionals and incited greater interest for further research in this area.

This study was conducted in an urban setting among educated people. It is likely that the results may not be applicable to other groups. European methods have always taken precedence in psychiatry and psychology, and specific issues relating to depression in Africa have often been disregarded. However, the little research that was performed has enlightened us to not impose Western systems on Africa without first verifying its validity with regard to the African people. A universal approach, that accommodates both the Western and the African context, needs to be adopted. It is assumed that should this approach have been followed decades ago, understanding and management of depression in Africa would already have been managed in the same advanced stages than in other developed countries. The burning desire for mental health clinicians is to adopt systems that deal directly with mental health issues in Africa, and incorporating cultural practices – therefore not only using the Western systems to support and enrich our knowledge.

This study shows a significant shift in the way Africans express themselves when depressed. This variation will enable clinicians to detect depression easily, provided an organised structure is followed that fit the African context. Knowledge of the general characteristics of African cultures and their impact on the understanding of mental health is fundamental in resolving this puzzle.

The value of having a comprehensive assessment approach to detect depression will be cost effective to the patient and the government: If the illness is identified early, intervention methods could be initiated promptly and this could save money and time.

If only issues of Africa could be addressed in the African way, progress in the identification and treatment of depression would be made.

An operational diagnostic model, specially designed to meet the situation in Africa, should be based on the objective assessment of symptoms in order to have a reliable and valid way of diagnosing depression. These systems could be used to diagnose depression in everyday clinical practice. Establishing a diagnosis is a key function of a clinician, because it is fundamental to planning and better management.

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## APPENDIX A: ADDITIONAL DETAIL REGARDING CONTENT AND DETERMINANT SCORING ON THE RORSCHACH

The content below was taken verbatim from Exner, (1993)

### 1. SYMBOLS AND CRITERIA USED FOR CODING CONTENT

- Na** Nature: this symbol is used for a broad variety of contents from the natural environment that are not coded as (Bt) or (Ls), such as the sun, moon, planet, sky, mist, etc.
- Ls** Landscape: this involves percepts of landscape such as mountains, hill, island, cave, rocks, and a seascape such as a coral reef or underwater scene.
- Ge** Geography: this involves the percept of a map, either specified or unspecified.
- Art** Art: this involves percepts of paintings, drawings and illustrations either abstract or definite such as statues, jewellery and decorations.
- Bt** Botany: this involves the percept of any plant life such as bushes, flowers, trees or parts of plants.
- Ay** Anthropology: this involves percepts that have a specific cultural or historical connotation such as totem, Roman helmet.
- Cl** Clouds: this is used specifically for the content cloud. Variations of this category such as fog or mist are coded Na.
- X+ %** this percentage represent the proportion of good form usage throughout the record.

## 2. DETERMINANTS

According to Exner (1974) determinants are seen as the “core” of the structural summary data and represent the psychological action, which has occurred at the time when the subject formed a response. There are seven broad categories of determinants, each of which represents how the subject translates the stimulus field. These categories are presented below as follows:

- (a) **Form.** A common determinant to all responses, either as the only determinant or combined with other determinants.
- (b) **Movement.** This category has three sub-categories, i.e., Human Movement, Animal Movement and Inanimate Movement. All movement is either passive or active. The constellation of movement responses offers the examiner insight in the specifics of ideation that are related to needs.
- (c) **Chromatic colour.** This category includes three symbols (FC, CF, C), the choice of which depends on the extent to which form is involved. Responses that have dominance of colour with low form quality, reflect excessive relaxation of cognitive control, where mental activity is temporarily overwhelmed and controlled by emotions.
- (d) **Achromatic colour.** This includes three symbols (C', C'F, FC') the choice of which depends on the extent to which form is involved in the answer. According to Exner, (1974) Klopfer reported that the C' responses relate to a toned down affective experience in which a hesitancy occurs for a more direct expression of affect.
- (e) **Shading.** This category has three sub-categories, each with three symbols: Y, YF, FY; V,VF, FV; and T, TF, FT. These sub-categories account for different uses of shading, i.e., Texture, Depth or dimensionality, and Diffuse. Texture responses are the most common of the shading responses, and relate to a need for affection. If form is used together with texture, then it relates

awareness and differentiation of the person's need for affection and dependency. If the responses contain form, the affective need is controlled and could possibly be used as an advantage for the subject. Conversely, when form is absent in the texture or is secondary, it could relate to overwhelming affective deprivation that affects the subject's attempts to maintain useful and productive interpersonal contacts. Texture answers reflect willingness to be more open with the environment.

Psychosomatic patients give fewer texture answers than patients being treated for other illnesses do. It is best described as an indication of needs for affective interpersonal contact. Diffuse shading responses reveal a painful absence of action, and relate to a sense of helplessness, anxiety and a tendency to withdraw.

Y is commonly elevated in stress-related helplessness.

- (f) **Pure Form Response.** The symbol F is used for responses in which the impression of dimensionality is based on size or contour. Pure Form is related to affect-free conditions and represents a form of affective delay or control and is a good index of the attention and concentration features of a subject's thinking operations. An excess of F reflects some form of defence to create a conflict-free situation, and even where these situations are present, they may be consciously controlled by thought operations.
- (g) **Pairs (2).** These responses always involve some use of form, and are based on the symmetry of the blots. Pairs are used where there are two objects seen but not as in a mirror image.

The determinants that are presented in either the S-CON or the DEPI are described next:

## White Space (S)

A white area is used in the response, scored only with another location symbol as in WS, DS, or DdS (i.e., respectively the whole card, large detail or small detail associated with white space). Such responses mostly occur in Cards I and II, and less frequently in Cards IV, V, VI and VIII.

## Movement

- (a) **FM (Animal Movement):** This relates to a response in which a kinaesthetic activity of an animal is involved. It represents more primitive operations than Human Movement (M) responses. FM responses manifest a sense of urgency where the subject becomes psychologically aware of impulses, which strive for immediate gratification, rather than working towards long-term goals. FM is related to a process that is not deliberately initiated, controlled or directed. It is relatively consistent across age groups in the normative data and may be an expression of an impulse.

Both FM and Inanimate Movement (m) seem related to the presence of mental activity that is provoked by demand states. In that context they appear similar but yet different. m Responses are unstable and appear to be induced by situations. The mental activity to which they are related seems to be involved in feelings of helplessness or loss of control. When this activity takes place, the subject tends to lose his or her concentration, and reasoning capacity can be interfered or interrupted easily. Depressed patients often complain of concentration problems.

The presence of a high number of FM in a protocol is related to behavioural dysfunction. When FM exceeds m, the subject is often found to be defensive, including the use of intellectualisation, rationalisation, regression and substitution. Subjects with more FM and m responses have tendencies of being

aggressive under states of diminished consciousness and becoming lively and energetic when the quality of FM tend to change during treatment.

- (b) **M (Human Movement):** According to Exner (1995), M is scored when a response describes human contents as engaged in some activity, or when the activity is strongly marked by fantasy and imagination. Clues to pathological social withdrawal are provided in the case where there is a low frequency of responses involving human content, especially human movement (M) and Pure Human content (Pure H).

According to De Cato (1993) when M is present, intellectual reasoning, which develops with cognitive maturation relates M response to coping. It delays spontaneous impulsive reactions and helps the individual to make adjustments to reality. It is a sophisticated inner experience, which appears not to be a conscious effort, but which is marked by organisation and reasoning to defend the self from hostilities of the world. M responses indicate deep-seated modes of behaving in social interactions, which are felt to be personal or important. In general M responses may also be considered to reflect a mental set for being interested in human interaction. Subjects who give inadequate M responses are seen as pathologically withdrawn from engaging in thinking about interactions with people.

According to Exner (1995), failing to produce one or two M responses is significant among adults and it is unlikely that a non-patient will fail to give M response, even at an early age. When the form quality of M is poor, a high likelihood of psychopathology related to poor social skills and poor interpersonal relationship emerges. In severe cases it may indicate psychosis. On the other hand, Exner (1974) reported that the presence of good quality M indicates positive prognostic outcome especially if the person is seriously mentally disturbed. Interestingly, the presence of M responses alone does not guarantee social skills. For example, subjects who give M responses without form may be interested in social relationship but doing this inappropriately and

unrealistically. Hence M responses are as likely to be associated with deficient social skills and poor interpersonal relationship as failure to produce the M at all.

The content of M response is also important to determine its position in social skills. Subjects whose interpersonal interests are associated with fragmentary and depreciatory views of people or who are focused on non-human objects, rarely have sufficient social skills to maintain adequate interpersonal relationships.

- (c) **m (Inanimate Movement):** This relates to a response in which movement of inanimate and inorganic object is involved. It represents forces that are beyond the control of an individual and that are consequently becoming a threat to the overall stability and organisation of personality. These m responses are associated with frustration, especially with regard to interpersonal relations. Fm and m responses are less organised compared to M responses, where the M responses reflect efforts to mediate stimulus inputs.

#### **Chromatic Colour Responses (FC, CF, C)**

- (a) **Pure C: Pure Colour:** Pure C is scored for answers based exclusively on the chromatic colour features of the blot without involving any Form features. The manner in which people deal with chromatic colour indicates how they are likely to deal with strong emotional stimulation and if the colour response is poorly modulated then this may indicate inadequate emotional control. Most importantly Pure C is an unmodulated use of colour and when given suggests unrestrained emotionality with no effort to integrate the feelings. The presence of one Pure C in a record cannot be view as a persistent personality characteristic unless two or more are present, in which case a conclusion of the likelihood of emotional control could be made (Exner, 1993).

- (b) **CF: Colour Form:** This is used for answers that are formulated primarily because of the chromatic colour features of the blot. Form features are used but are of secondary importance.
- (c) **FC: Form Colour:** This relates to a form dominated response in which the chromatic colour is used and integrated in the articulation of the response.

### **Achromatic Colour**

- (a) **C' (Pure Achromatic Colour):** This is based exclusively on the grey, black or white features of the blot, without the addition of form features and are used clearly as colour.
- (b) **FC' (Form Achromatic Colour):** This is a form dominated response in which the achromatic colour is used and integrated in the articulation of the response.
- (c) **C'F (Achromatic Colour Form):** This is a response sparked by and articulated primarily in terms of the achromatic colour, and some form features are used as well.

### **Shading**

(f) **Vista (V, VF, FV )**

**V Pure Vista:** This is a response sparked by and articulated in terms of shading, interpreted as representing a three dimensional effect, without the use of form features.

**VF Vista Form:** This is a response sparked by and articulated primarily in terms of shading, interpreted as representing a three dimensional effect, and some Form features are used as well.



**FV Form Vista:** This is a form dominated response in which the shading is used and integrated and interpreted as representing a three-dimensional effect, and some Form features are used as well.

According to Exner (1993) Vista responses relate to a person attempting to handle anxiety introversively. Such people distance themselves from problematic situations. They show symptoms of feeling inferior, depressed and with potential of being suicidal. Such subjects have negative attitudes towards themselves, with guilt feelings. The absence of vista is a favourable sign if FD is present. FD implies introspection and being critical of self.

(g) **Shading Texture**

**T Pure texture response:** This is used for answers in which the shading components of the blot are translated to represent a tactual phenomenon, with no consideration to the form feature.

**FT Form texture response:** This is used for responses that are based mainly on the form features. Shading features of the blot are translated as tactual, but are of secondary importance.

**TF Texture forms response:** This is used for responses in which the shading features of the blot are interpreted as tactual, and form is used secondarily, for purpose of elaboration and or clarification.

(h) **Shading Diffuse**

**Y Pure shading response:** This is used for answers that are based exclusively on the light dark features of the blot, that are completely formless and do not involve reference to either texture or dimension.

**YF Shading form response:** This is used for responses primarily on the light dark feature of the blot. Form features are included, but are of secondary importance.

**FY Form shading response:** This is used for responses that are based mainly on the form features of the blot. The light dark features of the blot are included as elaboration and /or clarification and are secondary to the use of form.

### **Form Dimension**

**FD (Form based Dimensional response):** The shape of the blot is used to articulate a three dimensional image. This scoring is used for answers in which the impression of depth, distance, or dimensionality is created by using the elements of size and or shape of contours. No use of shading is involved in creating this impression.

### **Pairs and Reflection**

(c) **(2) The pair's response:** This is used for answers in which two identical objects are reported, based on the symmetry of the blot. The object must be equivalent in all respects, but must not be identified as being reflected or as mirror images, e.g. two bears dancing.

(d) **rF Reflection form response:** This is used for answers in which the blot or blot area is reported as a reflection or mirror image because of the symmetry of the blot. This type of reflection is very uncommon and always involves content with specific form, e.g. clouds, landscape and shadow.

(e) **Fr Form reflection response:** This is used for answers in which the form of the blot is used for identifying specific content and in turn being interpreted as reflected because of the symmetry of the blot, e.g. mirror images.

## APPENDIX B: THE STRUCTURED QUESTIONNAIRE

**Date of interview** : .....

**Name** : .....

**Date of birth** : .....

**Age** : .....

**Sex** : .....

**Marital Status** : Single: Married: Divorced: Widowed: Separated: Other:

**Level of education** : .....

**Occupation** : .....

**Religion** : .....

**Referred by** :.....

**Reason for referral:**.....

**Seen by** :

Psychiatrist:

Psychologist:

2. **Presenting problem/ complaints/ verbatim**
3. **Do you have any other physical complaints**
4. **Did your illness affected you at work / school**
5. **How do you feel about being ill**
6. **Did you ever have suicidal thoughts**
7. **How do you feel about yourself**
8. **Causes of the illness**
9. **Medical history**
  - TB
  - Asthma
  - Hypertension
  - Diabetes mellitus
  - Heart disease
  - Alcoholism
  - Ulcers
  - Surgical operation
  - Allergies
  - HIV
  - Other
10. **Stressors**



## APPENDIX C: IMPRESSIONS ON THE MMPI

Name and surname of the patient:

**1. How did you find this test?**

a. Difficult : yes or no, why?

b. Tricky : yes or no, why?

c. Confused : yes or no, why?

d. Boring : yes or no, why?

e. Stressful : yes or no, why?

**2. Is the test long, short or normal?**

**3. Is this test helpful for you? Yes or no, why?**

**4. Do you have any suggestions concerning this test?**