

# **Development and implementation of a parent guidance intervention through mobile devices**

by

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Submitted in partial fulfilment of the requirements for the  
degree

**MAGISTER EDUCATIONIS**  
(Educational Psychology)

in the

Department of Educational Psychology  
Faculty of Education  
University of Pretoria

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**PRETORIA**

March 2021

## DECLARATION OF AUTHENTICITY

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I, Sarah Silber (student number 19194197) hereby declare that all the resources consulted are included in the reference list and that this study titled “**Development and implementation of a parent guidance intervention through mobile devices**” which I hereby submit for the degree Magister Educationis in the Department of Educational Psychology, Faculty of Education at the University of Pretoria is my original work. This mini-dissertation was not previously submitted by me for any other degree at another university.



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S. Silber

March 2021

## ETHICS STATEMENT

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The author, whose name appears on the title page of this mini-dissertation, has obtained, for the research described in this work, the applicable research ethics approval. The author declares she has observed the ethical standards required in terms of the University of Pretoria's Code of ethics for researchers and the Policy guidelines for responsible research.



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S. Silber

March 2021

# ETHICAL CLEARANCE CERTIFICATE

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## RESEARCH ETHICS COMMITTEE

**CLEARANCE CERTIFICATE**

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**DEGREE AND PROJECT**

MEd

Development and implementation of a parent guidance intervention through mobile devices

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16 July 2019

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This Ethics Clearance Certificate should be read in conjunction with the Integrated Declaration Form (D08) which specifies details regarding:

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### To whom it may concern

This letter serves to confirm that chapters 1, 2, 3, 4 and 5 of the report detailed below was edited by the undersigned editor. It was edited for proper language, grammar, spelling, punctuation and overall style, including technical editing.

The editor endeavoured to ensure that the author's intended meaning was not altered during the editing process. All changes were tracked using the Microsoft Word track changes feature.

**Author:** Sarah Silber

**Title:** Development and implementation of a parent guidance intervention through mobile devices

Sincerely,



**Chantelle Hough Louw**

## ACKNOWLEDGEMENTS

---

- ❖ Mrs Karien Botha: Thank you for being the most incredible supervisor. Thank you for your patience, your guidance, and for sharing your immense amounts of knowledge with me. I could not have asked for a better mentor during this process. I learnt so much from you and I am eternally grateful for your supervision.
- ❖ Professor Ronél Ferreira: Thank you for being the driving force behind this study, for organising the PRA meetings, the Multotec bags, and for your endless encouragement and kindness.
- ❖ The research experts who participated in the PRA workshops: Thank you for sharing your wisdom with me, without you this study would not have been possible. Thank you for inspiring me.
- ❖ My parents, Gus and Amanda, who have always supported me in the pursuit of my dreams, even when it meant completely changing my career path! You have always believed in me and encouraged me when I needed it most. I am so lucky to have you both and I promise now that this is finished, I will do my own laundry and cooking.
- ❖ My dear younger siblings, Rachel and Max: Thank you for inspiring me, I am so proud of you both for completing your undergraduate degrees this year!
- ❖ My friends and fellow classmates, Jo, Lucy and Irene: You have been my lifelines and a constant source of support (and laughter!) over these past two years. I am grateful for having you three with me along this journey.
- ❖ The Multotec Group, for financially supporting this study.

## ABSTRACT

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This study of limited scope forms part of a broader research project which is focused on the promotion of healthy nutrition, physical fitness and the psychosocial well-being practices of primary school children in resource-constrained communities in South Africa. The initial phase of the broader study obtained baseline data on the needs and expectations of parents in resource-constrained communities for health, physical fitness, and psychosocial well-being guidance in terms of suitable content and modes of delivery. The purpose of the present phase of the study is to explore and describe the development and implementation of a parent guidance intervention on health promotion practices in resource-constrained communities through mobile devices.

I followed a qualitative approach for this study and relied on interpretivism as a meta-theoretical lens. I implemented a descriptive case study design and utilised Participatory Reflection and Action (PRA) principles in generating data from the parents (n=60) of Grade 1 to 7 learners in two resource-constrained communities in Pretoria, and from a group of university researchers (n=7) who were experts in particular fields related to health promotion and parent guidance. I used PRA-based workshops as well as observation, audio-visual techniques, field notes and a reflective journal in order to obtain data for the study.

Following inductive thematic analysis, four themes and related sub-themes emerged in relation to the development and implementation of a parent guidance intervention based on parents' needs, modes of delivery for a parent guidance intervention, the utilisation of mobile devices, and the content of the WhatsApp messages for the parent guidance intervention. The findings of this study indicate the effectiveness of mobile devices and WhatsApp groups as a mode of delivery for parent guidance interventions. In addition, recommendations from researchers allowed for the development of suitable content for a parent guidance intervention based on parents' needs. The study also provides baseline data for the next phase of the broader project which will determine parents' perceptions on the intervention and their experiences thereof.

## KEY CONCEPTS

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- ❖ Alternative modes of delivery for parent guidance
- ❖ Development of a parent guidance intervention through mobile devices
- ❖ Implementation of a parent guidance intervention through mobile devices
- ❖ Food and nutrition-related needs
- ❖ Health promotion intervention
- ❖ Healthy lifestyle behaviour
- ❖ Nutrition and lifestyle-related needs
- ❖ Parent guidance
- ❖ Participatory Reflection and Action (PRA)
- ❖ Psychosocial support of children
- ❖ Resource-constrained communities
- ❖ School-based intervention



## LIST OF ABBREVIATIONS

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CDC	Centres for Diseases Control and Prevention
HIV	Human Immunodeficiency Virus
mHealth	Mobile health
NRF	National Research Foundation
NCDs	Non-communicable Diseases
PRA	Participatory Reflection and Action
SMS	Short Message Service
SDGs	Sustainable Development Goals
Win-LIFE	Wellness in Lifestyle, Intake, Fitness and Environment
WHO	World Health Organisation

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# CHAPTER 1- OVERVIEW OF THE STUDY

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## 1.1 INTRODUCTION AND RATIONALE FOR UNDERTAKING THE STUDY

The current study of limited scope forms part of a broader NRF-funded research project at the University of Pretoria, in collaboration with Fordham University in New York City (USA). The initial broader project is aimed at facilitating social change by means of a school-based health promotion intervention, focusing on healthy eating habits, physical fitness, and the psychosocial well-being of Grade 1 to 3 learners (n=330) in two resource-constrained communities in Pretoria, Gauteng. The second leg of the broader project focuses on a parent guidance intervention through mobile devices, as a result of parents requesting a continuation and a broadened scope of the project in 2016. The aim of my study of limited scope was to explore and describe the development and implementation of a parent guidance intervention through mobile devices.

The development and implementation of the parent guidance intervention through mobile devices consist of four sequential stages: Stage 1: Obtaining baseline information regarding the needs and expectations of parents (n=60) for guidance on healthy food, nutrition, and lifestyle behaviour, with reference to topics and suitable modes of delivery (Van der Merwe, 2019); Stage 2: Planning and development of the parent guidance intervention by utilising mobile devices; Stage 3: Implementation of the parent guidance intervention through mobile devices; and Stage 4: Evaluation of the outcome of the parent guidance intervention offered through mobile devices.

My study of limited scope forms part of stages 2 and 3, where I specifically focused on the development and implementation of a parent guidance intervention through mobile devices. I co-facilitated a Participatory Reflection and Action (PRA) workshop with the university researchers (n=7) from the Departments of the Human Nutrition, Physiology, and Educational Psychology at the University of Pretoria, to gain insight into what information should be included in the parent guidance intervention through the use of mobile devices. The university researchers were experts in fields of nutrition (n=1), physical fitness (n=1), psychosocial well-being (n=2) and technology (n=1), as well as the postgraduate researcher who conducted the previous phase of the project (n=1), and the principal of School A (n=1), which was one of the two research sites in the study. As a basis for the PRA workshops I facilitated, I analysed data

from a postgraduate researcher in the field of Educational Psychology. This researcher (Van der Merwe, 2019) conducted stage 1 of the present study, which involved obtaining baseline information on the needs and expectations of parents for guidance with reference to topics and modes of delivery.

Research increasingly indicates that parents' involvement in and support of their children's health and well-being can support the development of the child's emotional, physical and academic competence (Fernández & Lopez, 2017; Kuru Cetin & Taskin, 2016; Muller, 2018). Consequently, it has become necessary to develop strategies that can guide parents in resource-constrained communities, and help them overcome the barriers they face in terms of participating in these interventions. One way to improve communication between health-promoting schools and parents in resource-constrained communities is through the use of mobile devices that are easily accessible to the parents via their phones (Jones, 2014; McCloskey et al., 2018; Self-Brown & Whitaker, 2008). There is a need for more research into the ways in which parent guidance can be implemented in school-communities in an effective and efficient way (Arrastia-Chisholm & Tackett, 2020; Jones et al., 2013; Self-Brown & Whitaker, 2008).

## **1.2 PURPOSE OF THE STUDY**

The purpose of the present study of limited scope was to explore and describe (Mouton, 2001) the development and implementation of a parent guidance intervention through mobile devices in two conveniently selected resource-constrained communities. As indicated, the focus was on the voices and perceptions of parents and university researchers, and more specifically on the recommendations by both parents and university researchers that informed the development and implementation of a parent guidance intervention on health promotion practices through mobile devices.

## **1.3 RESEARCH QUESTIONS**

The present study was guided by the following primary research question: *How can parent guidance on health promotion practices be utilised in resource-constrained communities through mobile devices?*

I was guided by the following secondary research questions in an attempt to address the primary research question:

- ❖ Which recommendations by parents and university researchers might inform the development and implementation of a parent guidance intervention through mobile devices?
- ❖ What are parents' perceptions on the development of a parent guidance intervention through mobile devices?
- ❖ What are university researchers' perceptions on the development of a parent guidance intervention through mobile devices?
- ❖ How do parents perceive the suitability and options of using mobile devices for a parent guidance intervention?

#### **1.4 WORKING ASSUMPTIONS**

The following working assumptions were formulated based on my literature review and guided my undertaking of the present study:

- ❖ Parents will be able to reflect on their experiences when they formed part of a parent guidance intervention.
- ❖ Parents will be able to act as effective role models for monitoring health-related practices and encouraging their children to engage in healthy behaviours.
- ❖ Parents will be willing to get involved in the health promotion of their children, but needed guidance to do so.
- ❖ Parent guidance on health promotion practices is community led and owned.
- ❖ Parents will value the use of mobile devices during the facilitation of health promotion practices.

#### **1.5 CONCEPT CLARIFICATION**

This section provides clarity on the key concepts of the present study.

##### **1.5.1 Development**

Development refers to the process in which something is built or grown (Pitt et al., 2013). Furthermore, development is the act of creating something new by deliberate effort over a period of time (Chiu et al., 2007). The present study aimed to develop and implement a parent

guidance intervention through mobile devices. Development of the intervention required an in-depth analysis of the parents' needs as well as the researchers' recommendations for development. Baseline information regarding the needs and expectations of parents was obtained in the previous phase of this study. The present study focused on the development of the intervention with reference to content and suitable modes of delivery.

### **1.5.2 Implementation**

Durlak and DuPre (2008, p.329) state that "implementation refers to what a programme consists of when it is delivered in a particular setting." Implementation is a continuous process of putting a plan into effect, following a series of predetermined strategies (Glanz & Bishop, 2010). In the present study, implementation refers to the processes and methods used in order to implement a parent guidance intervention through mobile devices in two resource-constrained communities. Following the development of the intervention based on parents' needs and researchers' recommendations, it was implemented by sending messages with relevant content to parents by means of mobile devices.

### **1.5.3 Parent guidance**

A parent in the context of this study refers to any significant caregiver in the child's life. This is because many children in South Africa live without their biological parents, due to factors associated with poverty, limited housing, and the high incidence of disease (Hall et al., 2015). Parent guidance programmes consist of strategies that aim to enhance and improve a child's "chances of healthy growth towards adulthood" (Lewis et al., 2011, p.145). Parent guidance in this study thus refers to any form of support offered to parents or caregivers that would improve their knowledge and skills in various components of overall child and family well-being. Parent guidance in this study was delivered by means of mobile devices.

### **1.5.4 Health promotion intervention**

Health promotion can be defined as a process which enables individuals to increase their own control over and improve their health (Donald, 2014; World Health Organisation (WHO), 2018). Health promotion interventions aim to help individuals achieve and maintain a healthy lifestyle by combining education and environmental support (Department of Health, 2014). In the present study, the parents of Grade 1 to 7 learners in two resource-constrained communities, and a group of university researchers, voiced their opinions and perceptions regarding the

content to be included in a parent guidance intervention utilising mobile devices, as well as the implementation of such an intervention.

### **1.5.5 Resource-constrained community**

A resource-constrained community is generally characterised by a lower quality of life of the individuals who reside in it, due to high rates of unemployment and a lack of specific resources including education, health care, and social support (Department of Health, 2014). Mdluza et al. (2013) states that a resource-constrained community is one that experiences extensive poverty because it is deprived of many components of well-maintained democratic communities. The participants in the present study reside in one of two of the selected resource-constrained communities in Pretoria, Gauteng, and are faced with the aforementioned issues.

## **1.6 THEORETICAL FRAMEWORK**

I relied on Bronfenbrenner's bioecological model of development as a guiding framework for the present study (Bronfenbrenner & Morris, 2006). Bronfenbrenner (1979) situates the developing learner within a series of systems, namely the microsystem, mesosystem, macrosystem, exosystem, and the chronosystem. This model recognises the interconnection and interdependence between individuals, families, communities, and their surrounding physical and social environments. An important principle of Bronfenbrenner's bioecological model that guided this study relates to the assumption that a single change in one of the systems may lead to change in all other systems and interconnections (Bronfenbrenner, 1979). This implies that change in an individual's system can result in changes in both school, community, and other individual's systems.

Against the background of the present study of limited scope, I aimed to gain insight into how parent guidance through mobile devices can be applied to other systems, and how it affected the home and school environment of both the parents and the learners. In terms of parent guidance, by facilitating parents' understanding their children's needs, parents can support their own children, which in turn may improve the children's success in school. As such, Bronfenbrenner's bioecological model is relevant in the present study because it states that the development of a child occurs at home, in school and in the community, meaning that when parents, teachers, and other stakeholders are working collaboratively, common goals can be reached (Bronfenbrenner, 1979; Donald, 2014). Some of these goals include good health and well-being; reduced inequality; and quality education, which are all Sustainable Development

Goals (SDGs) (United Nations, 2010). A detailed discussion of Bronfenbrenner's systems and its application to this study is provided in Chapter 2.

## **1.7 PARADIGMATIC APPROACHES**

This section provides an overview of the epistemological and methodological approaches I applied in the present study. A detailed discussion of each approach is provided in Chapter 5.

### **1.7.1 Epistemological paradigm**

I selected interpretivism as the epistemological approach for the present study. According to McMillan and Schumacher (2014), interpretivism assumes that reality is socially constructed and that an individual's behaviour is determined by particular worldviews. Interpretivism recognises the importance of the social setting in which events take place, thus necessitating that the social world should be understood from the participants' perspectives. The interpretive approach was suitable for the present study because it focused on the subjective needs of the parent participants, which guided the university researchers in formulating their recommendations for the development and implementation of a parent guidance intervention through mobile devices (Chesebro & Borisoff, 2007).

An advantage of interpretivism is that this type of approach allows for the generation of extensive knowledge about the particular study topic (Williamson, 2006). Although this study focused on a small group of participants which limits its generalisability, the findings can still be used as a foundation upon which additional research can be conducted (Radnor, 2002). Other possible challenges surrounding the interpretive paradigm include lack of objectivity and trustworthiness (Chesebro & Borisoff, 2007). To overcome these challenges, I engaged in dialogue with the participants to construct a collaborative reality for the purpose of the study.

### **1.7.2 Methodological approach**

I utilised a qualitative research approach (Creswell, 2014) to understand how participants construct meaning and make sense of their own world and situations. A qualitative research approach allowed myself as the researcher to interact with the university researcher participants and gain an understanding of their ideas and perceptions on parent guidance interventions through mobile devices in a real-life setting, and thereby develop and implement a parent guidance intervention based on their recommendations (De Vos & Strydom, 2011).



As a novice qualitative researcher, the challenges I remained aware of included the influence of bias, limited generalisability due to the small working group, and a possible lack of consistency in the data generated (Bryman, 2017). In order to overcome this, I debriefed with my supervisor and reflected on the research process throughout in order to avoid bias. Another possible challenge of qualitative research is the lack of transparency that may arise during the research process. I ensured that I was thorough and clear throughout the process and made use of a reflective journal in order to maintain an audit trail for the study (Bassot, 2016; Bryman, 2017).

## **1.8 OVERVIEW OF THE RESEARCH PROCESS**

In the following section, I present an overview of the methodology selected for the present study. I elaborate on these in detail in Chapter 3.

### **1.8.1 Research design**

I made use of a descriptive case study research design (Yin, 2017), applying Participatory Reflection and Action (PRA) principles (Chambers, 2003) for the present study. As explained by Yin (2017), a case study design is relevant when the research involves the in-depth exploration of a specific phenomenon, in a real-life context, utilising a number of sources of evidence including observations, audio-visual techniques, and interviews. Through an active partnership with the participants, I was able to generate multiple sources of data, which allowed the participants to reflect on their perceptions regarding the development and implementation of a parent guidance intervention through mobile devices (Ridder, 2019).

Through the use of a descriptive case study design and by employing PRA principles, I was able to engage the participants using innovative PRA-based data generation strategies. The active involvement of the research participants is beneficial, as it allows them to use the research process as a valuable resource that can help enhance their knowledge and improve the social, educational and material environment in which the research will take place (De Vos et al., 2005). Challenges I remained aware of while using a descriptive case study design include limited generalisability of results, and that this type of data generation is time consuming (Ridder, 2019). Because the study focused on a particular phenomena, the aim was to gain a detailed understanding of the participant's opinions and ideas so as to develop and implement a parent guidance intervention through mobile devices and not to generalise the results.

### **1.8.2 Selection of participants**

I made use of convenience sampling in order to select the research site in this study. The study forms part of a broader research project and includes participants from two resource-constrained communities in Pretoria, Gauteng, thus making the research site conveniently available (McMillan & Schumacher, 2014). In addition to convenience sampling, I also utilised purposive sampling to select the parents and university researchers who participated in the study. According to Creswell (2007, p.125), purposive sampling allows the researcher to select participants based on their ability to “purposefully inform an understanding of the research problem and central phenomenon of the study.”

The participants in the study were the parents (n=60) of Grade 1 to 7 learners in two resource-constrained communities in Pretoria, Gauteng. Seven (n=7) participants were university researchers in particular fields related to health promotion and parent guidance. Possible limitations of purposive sampling are that it may cause under- or over-representation of a specific group that exists in the sample, and that inherent bias may impact the final results (Sharma, 2017). I therefore needed to acknowledge that over-representation was possible and aimed to prevent bias by ensuring I made detailed observations and made use of debriefing and reflection sessions with my supervisor and colleagues.

## **1.9 DATA GENERATION AND DOCUMENTATION**

Qualitative data was generated for the study by means of PRA-based workshops, audio-visual techniques, observation, field notes, and a reflective journal (McMillan & Schumacher, 2014). PRA-based workshops allowed the university researchers to share, enhance, and reflect upon their knowledge and experiences for a parent guidance intervention through mobile devices (Chambers, 2003). PRA-based data generation strategies are cost-effective and allow for the creation of detailed, visual, and creative activities which aim to keep participants motivated and allow them to develop positive rapport (Ferreira, 2012). The data that was generated during the PRA-based workshops was documented in the form of posters.

I made use of observation techniques in order to collect data during the PRA-based workshops. Observation enables a researcher to observe participants and document the observations in the form of field notes, photographs or videos (Spradley, 2016). As such, to document my own observations, I also kept field notes and took photos of the generated posters. Bias is a potential limitations of observation techniques (Bell, 2010; Spradley, 2016). I therefore remained aware

of my biases by use of reflection, and monitored my subjectivity during the research process. I recorded my perceptions in a reflective journal which was shared with my supervisor during debriefing sessions (Bassot, 2016). I was able to gain deep insight into the views of the participants, which was the purpose of the study.

Throughout the data collection process, I made use of audio recordings. This enhanced the credibility of the study and provided a permanent record which could be used at any time during data analysis (McMillan & Schumacher, 2014). I recorded all discussions in the PRA-based workshops and this provided me with chronological records of the data generation. A limitation of audio data documentation however is that some participants may not want to be recorded, and that transcribing the data is a timely process which can result in large volumes of data to analyse (Bell, 2010). I remained aware of these challenges and ensured that I organised and managed the research process in a time-effective manner in order to complete the analysis and interpretation according to my research plan.

## **1.10 DATA ANALYSIS AND INTERPRETATION**

I relied on inductive thematic analysis to identify the key patterns and themes relevant to the research questions in the study (Braun & Clarke, 2006). According to Nieuwenhuis (2007, p.100), the aim of inductive thematic analysis is to summarise the data in terms of “common words, phrases, themes or patterns” that will enable the researcher to understand and interpret the findings in line with the research question.

To analyse the data I obtained, I followed the guidelines outlined by Braun and Clarke (2006) for conducting inductive thematic analysis. An advantage of inductive thematic analysis is that it allows for the examination of both implicit and explicit responses from the participants, which thus gives way for extensive data generation (Terry et al., 2017) Inductive thematic analysis also allows the researcher to determine the frequency at which particular themes occur and compare replicated information which was obtained at different times during the study (Terry et al., 2017).

Inductive thematic analysis can be limiting if the correct guidelines are not strictly followed (Nieuwenhuis, 2007). As a researcher, I needed to ensure that my themes made sense, did not overlap one another, and were coherent and consistent. I discussed the themes with my supervisor in order to make certain that the analysis was done in an orderly manner, and was not affected by my own biases or predetermined research questions (Leedy & Ormrod, 2015).

I included member checking as part of the research process in order to ascertain that I interpreted the participants' contributions in a fair and just manner (Leedy & Ormrod, 2015).

### **1.11 ETHICAL CONSIDERATIONS**

I acknowledged and abided by the guidelines authorised by the Ethics Committee of the Faculty of Education at the University of Pretoria (Ethics Committee, 2015). Before conducting any fieldwork, I had my study approved by the Ethics Committee of the Faculty of Education, University of Pretoria. I also obtained written informed consent from the participants (Mouton, 2001). I did not partake in any form of deception during the research process and clearly stated the purpose of the research before data generation took place (Miller et al., 2012). I showed respect toward the research participants and remained conscious of any cultural or language differences that emerged (Miller et al., 2012). I maintained the confidentiality of the participants by using pseudonyms and never disclosing their identities (Leedy & Ormrod, 2015). Finally, I ensured that no harm was caused to the participants during the study and foresaw no risks for the participants in partaking in the research process (Neuman, 2014). An elaboration on the ethical considerations is included in Chapter 3.

### **1.12 QUALITY CRITERIA**

Lincoln and Guba (1985) describe the trustworthiness of a study as a measure of quality for qualitative research that is evaluated by five criteria: credibility, transferability, dependability, confirmability, and authenticity. The *credibility* of a study is the extent to which the participants' views relate to and are consistent with the findings of the researcher (Connelly, 2016; Shenton, 2004). In order to enhance the credibility of my study, I engaged in regular member checking, kept a reflective journal, and consistently debriefed with my supervisor during the research process. The *transferability* of a study measures the degree to which the information compiled can be utilised in alike situations in related research fields (Shenton, 2004). Although this study did not seek to generalise findings, I still aimed to obtain transferable data. As such, I obtained thick and detailed descriptions of the research phenomena at hand and presented the experiences and ideas of the research participants in an in-depth, detailed manner (Anney, 2014).

*Dependability* ensures the research process is rational, traceable and documented thoroughly throughout (Shenton, 2004). Methods I used to enhance the dependability of a study include the use of an audit trail, triangulation of data, and a reflexive research process (Connelly, 2016;

Shenton, 2004). The *confirmability* of a study refers to the objectivity of the findings, in that the findings produced need to be verifiable and should not be mere fabrications on behalf the researcher (Connelly, 2016). By compiling an audit trail, using triangulation, member checking, and a reflective journal, I enhanced the confirmability of my study (Shenton, 2004). The *authenticity* of a study refers to the degree to which the views and ideas of the research participants are represented fairly and truthfully. In order to ensure an authentic study, I presented a detailed description of the participants' perceptions of a parent guidance intervention through mobile devices and their experience thereof (McMillan & Schumacher, 2014). A detailed discussion of how I attempted to adhere to the outlined quality criteria is provided in Chapter 3.

### **1.13 LAYOUT OF THE CHAPTERS**

This mini-dissertation of limited scope consists of five chapters. In Chapter 1, I introduced the study to the reader. Herein, I state my rationale and define the purpose and research questions. Following this, I describe the working assumptions and paradigmatic choices which guided the study, and then outline the research process. Finally, I discuss the quality criteria and ethical considerations. Chapter 2 explores existing literature on the development and implementation of health promotion interventions and the challenges faced by resource-constrained communities regarding healthy lifestyle behaviour. I end the chapter with an explanation of my conceptual framework. Chapter 3 provides an explanation of the research paradigm and the research design and process which I used in this study. I elaborate on the data generation and documentation techniques and explain their suitability for a study of this nature. I then explain the method of data analysis utilised in this study, and outline the ethical guidelines and quality criteria which I adhered to during the research process. Chapter 4 details the results of the study. I discuss the themes and sub-themes that emerged during thematic analysis. Finally, I explain the results in relation to the existing literature upon presenting the findings of my study. The final chapter provides a conclusion to the study by addressing the research questions based on the findings discussed in Chapter 4. I discuss the challenges I faced during the study, and the value of the study in a broader context. In concluding the chapter, I make recommendations for future research, training, and practice.

### **1.14 CONCLUSION**

Chapter 1 explained the rationale and purpose of the present study. In addition, I outlined the research questions and the working assumptions which guided the study. I also provided

clarification of the key concepts and briefly discussed the selected paradigms. Furthermore, I described the ethical considerations and quality criteria which I adhered to during this study.

In Chapter 2, I review the relevant literature that related to my field of study and discuss the theoretical framework I adopted.

## CHAPTER 2- LITERATURE REVIEW

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### 2.1 INTRODUCTION

In this chapter, I provide an overview of the health-related behaviour of resource-constrained communities in South Africa. This includes the challenges faced by the individuals living in these areas, and the impact of these challenges on the surrounding community. Thereafter, I discuss the factors influencing health-related behaviour in South African resource-constrained communities, such as demographics, socioeconomic status, employment status, motivational levels, and food-based advertising in these communities.

The next section of the literature review introduces the concept of parent guidance interventions in resource-constrained communities as a way of improving health-related practices, especially in younger children. It then goes on to discuss the traditional modes of delivery for parent guidance interventions, namely, parent evenings, newsletters, worksheets or group activities, and the barriers each of these faced. Following this, the chapter examines the development of web-based interventions and mobile phone-based intervention respectively, as potential modes of delivery for health promotion interventions.

Following this, I explain the importance of an individually tailored intervention, particularly regarding parent guidance interventions in resource-constrained communities. First, I discuss the process of tailoring an intervention according to a parents' needs, and then examine the tailoring of a parent guidance intervention in terms of the mode of delivery and the content. Concerning the content of parent guidance interventions, I elaborate on nutrition-related content, psychosocial well-being related content, and physical fitness related content that could be included in such an intervention in resource-constrained communities in South Africa.

The purpose of the literature review I completed was to steer my study, identify limitations in the knowledge base on the promotion of healthy lifestyle practices in resource-constrained communities, and ultimately contribute to the development of a theoretical framework. Therefore, the final section of the literature review outlines the theoretical framework of the present study, that is, Bronfenbrenner's bioecological model of development.

## **2.2 HEALTH SCENARIO IN SOUTH AFRICAN RESOURCE-CONSTRAINED COMMUNITIES**

In this section, I provide an overview of the current status of resource-constrained communities in South Africa, with regard to health-related challenges and the factors that influence the health and well-being of individuals residing in these communities.

### **2.2.1 Health-related challenges in South African resource-constrained communities**

Health is regarded as a basic human right, both nationally and globally (Department of Health, 2014; Republic of South Africa, 1996). The World Health Organisation (WHO) defines health promotion in the Ottawa Charter for Health Promotion (WHO, 1986) as encouraging individuals to take control over their own health in order to improve their overall well-being. Health disparities in South Africa are evident in several environmental and social settings and are exacerbated by widespread issues such as poverty, high unemployment rates, pollution, the spread of disease, and inadequate housing and social support (Booyesen, 2014; Ebersöhn, 2017; Van der Hoeven et al., 2012). Furthermore, the Living Conditions Survey (LCS) 2014/2015 conducted by Statistics South Africa indicates that the level of socioeconomic inequality in South Africa is among the highest in the world (Statistics South Africa, 2017). As a result, the country has a large number of resource-constrained communities, which are inundated with a variety of health, economic, and social problems.

Households in resource-constrained communities typically consist of family members who earn a low-income and have many dependents (Statistics South Africa, 2017). These communities are often susceptible to health problems caused by poor nutrition and sanitation, along with poor access to health services (Ebersöhn, 2017). The individuals living in resource-constrained communities are also more vulnerable to the Human Immunodeficiency Virus (HIV) and related illnesses, and to non-communicable diseases (NCDs) such as diabetes, cardiovascular diseases, and chronic respiratory diseases (Coovadia et al., 2009; Mayosi et al., 2009).

Various health issues caused by malnutrition and sedentary lifestyles are prominent in South African resource-constrained communities. Malnutrition, which includes both under- and over-eating, is a critical challenge faced by these populations (Hendricks & Dlamini, 2013; Kimani-Murage et al., 2010). Hendricks and Dlamini (2013), as well as Vorster et al. (2013) reported strong correlations between malnutrition and cognitive ability, with poor nutritional habits



being associated with below-average school marks, late school enrolment, and overall decreased intellectual ability in children from resource-constrained communities. In addition, iron deficiency, which is also a consequence of malnutrition, can also cause impaired intellectual, physical and social-emotional skills (Hendricks & Dlamini, 2013).

The rate of school-age individuals in South Africa faced with health-related problems is ever-increasing. This is due to a lack of knowledge as to how their overall health can be improved, as well as an increase in risk-taking behaviours, especially in resource-constrained communities (Kimani-Murage et al., 2010; Mayosi et. al., 2009). The added stress of poverty, unemployment, and illness may put further strain on a child's ability to lead a healthy lifestyle (Burton & Leoschut, 2012; Ebersöhn, 2017). Health-related problems often persist long into adulthood and are a substantial burden on the individual's family and the surrounding community. Poor health-related behaviours in childhood may also lead to chronic and NCDs later on in life, which contribute to a significant economic cost for government through the increased expenditure on health care (Brown & Summerbell, 2009; McGarry & Shackleton, 2009; Richter et al., 2010).

Therefore, the promotion of children's health in schools is essential to improve their future well-being and the well-being of their surrounding community. Health promotion interventions which assist in training the entire community to live a healthier and more economical life are extremely beneficial (Jepson et al., 2010). Many schools in South Africa are threatened by a wide range of health-related issues experienced by the learners, such as malnutrition (De Cock et al., 2013), obesity (Truter et al., 2010), and household food and nutrition insecurity (Oldewage-Theron et al., 2018). These problems can have a ripple effect throughout communities due to the interactive relationships between learners, teachers, parents, and the surrounding society (Burton & Leoschut, 2012). The factors which influence and exacerbate these health-related issues will be discussed in the next section.

### **2.2.2 Factors influencing health-related behaviour in South African resource-constrained communities**

Health-related behaviour is influenced by a number of factors which can either improve or diminish overall health. Demographics play a major role in determining health-related behaviour, especially in resource-constrained communities (Ebersöhn, 2017; Naidoo & Willis, 2009). Individuals living in poverty and experiencing higher levels of day-to-day stress are less likely to engage in good health practices (Mayosi et al., 2009; Neely & Ponshunmugam, 2019).

In this regard, the literature has linked geographic location to various health outcomes including chronic illnesses, mental health problems, life expectancy and mortality (Marmot, 2010; Mayosi & Benatar, 2014; Menec, et al., 2010). Moreover, the role that people in the external environment of an individual have on one's own health-related behaviour is far-reaching. Children living in households with parents who engage in unhealthy eating habits and do not exercise will be more likely to do the same.

Individuals living in resource-constrained communities are also more likely to eat food with lower nutritional value, miss meals, or even not eat at all for days at a time in order to combat the food insecurity they are faced with (Oldewage-Theron et al., 2018). The poor dietary choices of families in resource-constrained communities are often the result of the low cost of nutrition-deficient food (Caprio et al., 2008). Furthermore, inflated food costs, low accessibility to food services, and a lack of education have all been reported as causal factors of the poor nutrition of individuals in these communities (Darmon & Drewnoski, 2008; Li et al., 2019). Resource-constrained communities also have limited access to retailers and food markets where there is usually a high variety of nutrient-dense food available (Beaulac et al., 2009; Larson & Story, 2009; Oldewage-Theron et al., 2018).

In addition, unreliable forms of transport for individuals in these areas also force community members to purchase their food items from small spaza shops and local street vendors who often have fewer items available, most of which have low nutritional value (Kim et al., 2015; Oldewage-Theron et al., 2018). When these services do have stock of healthier food, it tends to be more expensive compared to refined, sugary products which are easy to access and cheaper to buy in these communities (Li et al., 2019; Monsivais & Drewnowski, 2009).

In addition to the demographic factors mentioned above, socioeconomic status is considered a primary factor influencing health-related behaviour in South Africa (Oldewage-Theron et al., 2018; Rutstein & Johnson, 2004). Employment standing as a proxy of socioeconomic status contributes significantly to health disparities amongst populations in South Africa (Hosseinpoor et al., 2018). The status of being employed is inevitably linked to improved physical and mental health and a higher quality of life (Hosseinpoor et al., 2018). Unemployment has been associated with substance abuse (Henkel, 2011), malnutrition in infants (Lindo, 2011) and depression (Jefferis et al., 2011). As previously stated, resource-constrained communities in South Africa often have high levels of unemployment, which can

lead to diminished physical and mental health of community members (Henkel, 2011; Oldewage-Theron et al., 2018).

Just as socioeconomic and employment status can influence health-related behaviours, the education level of an individual can also influence his or her health-related behaviour and overall well-being. Chou et al. (2010) found that higher levels of education were associated with greater maternal and infant health outcomes in a population. Conversely, lower levels of education are linked to a decrease in positive health behaviour and greater rates of ill-health in a number of studies (Anselmi et al., 2015; Njuki et al., 2014; Zyaambo et al., 2012). Access to education is a proxy of socioeconomic status, and therefore individuals living in resource-constrained areas with lower access to quality schooling are less likely to find employment. They will thus have lower incomes, and consequently less opportunities to improve their health.

Beogo et al. (2014) also found that individuals with higher education levels were more likely to visit healthcare service providers and maintain their good health practices. A possible reason for this is that misconceptions about healthcare providers exist predominantly in resource-constrained communities and most individuals either do not trust or do not believe in Western medical practices (Beogo et al., 2014). This phenomenon was also studied by Caldwell et al. (2014) who found that uneducated groups believed western medicine was too severe for treating their infants, and as a consequence had higher rates of infant mortality in their populations.

Finally, in addition to all of the aforementioned factors, individuals in resource-constrained communities also have decreased motivation and lack the requisite skills to cook healthy home-made meals with fresh ingredients (Dibsdall et al., 2003; Mistry & Puthussery, 2015; Vereecken et al., 2004; Wang et al., 2012). The opportunity to cook homemade meals in these communities is considered a luxury activity. Thus, most individuals cannot engage in this practice as they simply cannot afford it (Moore & Littlecott, 2015). Resource-constrained communities are also more likely to be exposed to advertising which encourages the purchasing of low-cost, nutrient-poor food- this advertising also influences the eating patterns of children living in these areas (Komro et al., 2011; Yancey et al., 2009).

Following the discussion of the health-related behaviour in South Africa and the factors which influence health-related behaviours in resource-constrained communities, the next section will

discuss the development and implementation of parent guidance interventions which aim to improve health-related behaviours.

## **2.3 PARENT GUIDANCE INTERVENTIONS IN RESOURCE-CONSTRAINED COMMUNITIES**

As is evident from the literature already discussed in the previous section, childhood health is of utmost importance as it lays the foundation for future community well-being. Parents can ensure a nurturing environment and provide numerous opportunities for growth and support for the healthy development of their children. Parent guidance interventions which focus on promoting better parenting skills, problem-solving techniques, and child-communication techniques generally have positive outcomes in resource-constrained communities (Knerr et al., 2013; Levey et al., 2017).

### **2.3.1 Traditional modes of delivery for parent guidance interventions**

In the past, parent guidance interventions have usually been in the form of parent evenings, newsletters, worksheets, or group activities (Staples & Diliberto, 2010). This means that traditional barriers to these approaches are mostly related to a lack of participation by parents, as many are unable to attend meetings due to work or family commitments (Heath et al., 2018; Lingwood et al., 2020). With regard to letters and worksheets, this mode of delivery has been found largely unsuccessful due to unreliability as paper-based material often gets lost or does not reach parents in time (Heath et al., 2018; Silk et al., 2008; Van de Kolk et al., 2019).

Although on-site parent guidance interventions offer many advantages such as increased interaction and immediate feedback, participation is often poor. Parents from resource-constrained areas in particular experience barriers to involvement related to both demographic and psychological factors (Murray et al., 2014; Simons-Morton & Crump, 2003). Malone (2017) discussed that financial distress, time constraints, and lack of energy or motivation limit parents' involvement interventions, especially in resource-constrained areas. Because South Africa is a multilingual country, challenges associated with the language and literacy levels of parents can also impact the successfulness of a parent guidance intervention in this context (Cortis et al., 2009; Lachman et al., 2016). In addition, the willingness of parents to engage in these interventions may be hampered by their perceived levels of social competence (Lingwood et al., 2020; Whittaker & Cowley, 2012).

Moreover, because the majority of parent guidance interventions are based on Eurocentric perspectives and norms, many parents see cultural differences as restrictive and choose not to participate for this reason (La Placa & Corlyon, 2016). In addition, parents may have different opinions on child-rearing strategies based on cultural norms and expectations (Hackworth et al., 2018; Mendez et al., 2009). According to the Centres for Diseases Control and Prevention (CDC, 2012), utilising a client-centred approach combined with technological strategies which combat barriers to participation in on-site sessions, will ensure that the needs of parents are specifically addressed and met.

Finally, the availability of interventions providing guidance does not necessarily guarantee positive outcomes, as programme success relies on parental attendance and engagement (Malone, 2017; Whittaker & Cowley, 2012). Furthermore, parent education alone has resulted in limited positive change in parental health-related attitudes and behaviours (Luesse et al., 2018; Slusser et al., 2011), in turn limiting the possibility of positive outcomes for children. Parents need to be equipped on various levels to change family attitudes and practices, as lifestyle change relies on a repertoire of appropriate knowledge, skills and resources for support (Hart et al., 2003; Lingwood et al., 2020). To optimise parent attendance and engagement when offering parent guidance, factors pertinent to the personal lives of the prospective participants and those specific to the programme design need careful consideration (Lingwood et al., 2020; Whittaker & Cowley, 2012).

### **2.3.2 The development of web-based interventions**

As access to online information by low-income populations is increasing and the so-called digital divide is slowly diminishing, alternative methods of guidance interventions to this population group is evolving (Ganju et al., 2020; Kvillemo et al., 2020; Stotz et al., 2017). Traditionally, most interventions delivering nutrition or fitness-related guidance were delivered in the form of in-person meetings or collaborative classes (Schaffler et al., 2018). The rationale for preferring these methods of delivery are likely due to a previous lack of alternative delivery methods such as internet access. Various challenges arose with these forms of delivery including a lack of interest and the transient nature of the population (Melo et al., 2013; Slusser et al., 2011; Yamey, 2012). However, as more people in low-income populations gain access to the internet, web-based interventions are becoming more common (Lingwood et al., 2020).

Studies which analyse the use of technology in interventions generally indicate positive health behaviour outcomes, such as improved knowledge of child-feeding strategies (Boswell et al., 2019; Scheinmann et al., 2010; Thompson et al., 2012); healthier eating practices (Bensley et al., 2011; Leonard et al., 2020; Maes et al., 2011; Mangunkusumo et al., 2007); higher levels of physical activity (Lyons et al., 2017; Matthews et al., 2016; Wang et al., 2012) and weight management (Anderson-Bill et al., 2011; Chen et al., 2011; Leonard et al., 2020).

Well-designed interventions have the potential to increase access to health-related content. A number of web-based interventions have found to improve health-related behaviour in participants. Kvillemo et al. (2020) found that brief digital interventions were effective in reducing alcohol consumption in adolescents and young adults. Au et al. (2016) compared in-person methods of intervention delivery to online-based interventions and found an increase in healthy breakfast consumption in both the parent and child online groups compared to the in-person groups. Similarly, Ganju et al. (2020) found that digital interventions on smartphones improved health and nutrition outcomes of individuals in low-income communities. In addition, Stotz et al. (2017) found that an online-based nutrition education platform for low-income individuals significantly improved most nutrition-related behaviours compared to traditional interventions.

Technology-assisted communications have become increasingly popular in recent years for the delivery and enhancement of guidance interventions (Ganju et al., 2020; Kvillemo et al., 2020; Stotz et al., 2017). The major reason for this growth is owing to the belief that technology can greatly improve the quality of the delivery of the intervention and the engagement of both universal and at-risk populations (Hall & Bierman, 2015; Jones, 2014). Despite the importance of parent guidance interventions, the diffusion of these programmes remains a key challenge. Mobile devices, in particular however, have the potential to offer widespread diffusion of information by enhancing accessibility and lowering costs (Hall & Bierman, 2015; Jones et al., 2013; Self-Brown & Whitaker, 2008). The utilisation of mobile devices for providing parent guidance has the potential to reduce challenges experienced by parents and promote widespread diffusion of interventions.

### **2.3.3 The development of mobile phone-based interventions**

Mobile devices offer unique and well-tailored opportunities for health promotion interventions in resource-constrained communities (Sim, 2019). Their ubiquitous nature allows for new innovative opportunities to provide health information to parents in resource-constrained

communities (Müller et al., 2016). The ability to deliver information directly to a mobile device at any place and time is appealing to both health providers and the recipients of health-related information (Marcolino et al., 2018). The design of mobile phone-based intervention requires a needs analysis of the target population, expert opinion from health providers, and the use of a phone-based application that is appropriate for information delivery (Agarwal et al., 2016; Sim, 2019).

The WHO (2018) refers to interventions that are provided via mobile devices as mobile health (mHealth) interventions. Most mHealth interventions available today focus on either improving nutrition or physical activity (Marcolino et al., 2018). Interventions targeting multiple lifestyle behaviours, such as nutrition, psychosocial well-being, and physical activity may be more effective than targeting a single behaviour, especially for the target group in this study who require access to information about all three of the aforementioned lifestyle behaviours via their mobile devices (Müller et al., 2016; Sim, 2019).

WhatsApp groups in particular allow for widespread, convenient and reliable transfer of information to group participants. WhatsApp (WhatsApp Inc., Mountain View CA) is an application that is used by more than 700-million people across the globe, allowing users to send messages, photos, videos and other forms of media to their contacts. WhatsApp is the most widely used messaging application in South Africa, according to the Digital 2020 report. Very few studies have utilised this application for the delivery of an intervention. The most recent include Zotti et al. (2019) who used WhatsApp to evaluate oral hygiene in adolescents, Muntaner-Mas et al. (2017) to enhance health-related physical fitness component of cardiovascular disease in participants.

Health promotion interventions utilising mobile devices via WhatsApp groups can promote a range of health behaviours including exercise, nutrition, and overall emotional well-being. A major advantage of using mobile devices for health promotion is that they require less resources than typical face-face interventions, and are thus less costly and time-consuming (Hall & Bierman, 2015).

In concluding this section, it is evident that involving parents in school-based health promotion interventions is hugely beneficial because of the pivotal role they play in their children's lives. If parents in resource-constrained communities can access health-related information quickly and cost-effectively they can play an active role in improving the health of their children and

even themselves. In this modern age where information spreads so rapidly, sending health-related messages over WhatsApp can have a substantial impact on communities who can share the information with each other and model newly learnt good-health behaviours for their family members and surrounding community.

## **2.4 IMPORTANCE OF AN INDIVIDUALLY TAILORED INTERVENTION**

The development of a successful parent guidance intervention is largely dependent on the tailoring of content and delivery method based on the target populations needs (Pienaar & Strydom, 2012). Moreover, a tailored approach can ensure greater engagement from the recipients of the intervention and thus enhance the success of the intervention (Lachman et al., 2016; Pienaar & Strydom, 2012).

### **2.4.1 Tailoring of an intervention according to parents' needs**

A growing amount of research has shown that developing health-related information without first considering individual needs may significantly limit the extent of health behaviour change (Gans et al., 2009; Lambert et al., 2009; Lustria et al., 2009). By asking parents about what content they would like to have in a parent guidance intervention, it is possible to create a specifically tailored intervention that would suit their needs.

Tailoring is a multidimensional process that involves the development of individualised messages based on pre-analysis of the message recipients (Kreuter et al., 2004; Lustria et al., 2009). Furthermore, tailoring increased the personal relevance of health messages (Hawkins et al., 2008). In this way, parents will be involved in the development process and feel more compelled to engage in the content once the intervention has been developed (Lachman et al., 2016). Therefore, an intervention that incorporates parents' needs, ideas, and perceptions will be developed to enhance their engagement.

The primary step in developing a parent guidance intervention is to enquire about the ways in which parents would like to be supported and the types of knowledge they would like to obtain. Consulting with parents is an essential component of the development and implementation process. McKinnon et al. (2014) found that when developing parent interventions, considering the socio-cultural and environmental factors in the parents' lives is important as the context they live in will influence their dietary and fitness-related behaviour. Tailored health-related messages are perceived more positively by recipients as they are created with greater intent and as a result have less redundant content (Brug et al., 2003; Kreuter et al., 2004). Finally,



tailored messages are likely to enhance the motivation of recipients to elaborate on the message and put the information presented into practice.

#### **2.4.2 Tailoring the mode of delivery**

Parents in the study by Hall and Bierman (2015), which reviewed the use of technology for delivering interventions for parents of young children, expressed that use of mobile phones for the delivery of a parent guidance intervention would be most efficient. Parents noted that mobile phones allow for immediate access of information and are more convenient and less time consuming than other modes of delivery (Hall & Bierman, 2015). A number of other studies have also found that mobile devices provide numerous advantages associated with delivery of information (e.g. Bensley et al., 2011; CDC, 2012; Guilamo-Ramos et al., 2015; Neuenschwander et al., 2013; Wyse et al., 2012).

A study by Bensley et al. (2011) found that using mobile devices to deliver information on nutrition to a group of participants was more effective than using “traditional” methods of delivery such as group meetings or information pamphlets. The study concluded that participants who received the intervention via devices perceived that it was more user-friendly and helpful. Similarly, Ajie and Chapman-Novakofski (2014) found that computer-based nutrition programmes led to greater changes in obesity outcomes in adolescents compared to traditional methods.

In terms of physical fitness, Kraushaar and Krämer (2014) found that a mobile phone-based intervention aimed at increasing physical activity in adults was more successful than an in-person intervention of the same kind. Richardson et al. (2008) found similar results with an internet-mediated programme that increased the average step count in participants. A study by Hemdi and Daley (2017) found that mothers of children with Autism Spectrum Disorder were less stressed and anxious after participating in a psycho-education intervention delivered through WhatsApp messenger. Finally, Alanzi et al. (2018) who utilised WhatsApp for improving Diabetes Type 2 knowledge, found that diabetes knowledge and self-efficacy of the intervention group increased significantly after the intervention with the WhatsApp application.

Mobile devices provide a quick and easy method of receiving information. Hingle and Patrick (2016) found that these devices allow for consistent engagement and the ability to spread information in the form of easy-to-understand messages. Similarly, Bensley et al. (2011) found

that participants preferred using internet-based devices when receiving a nutrition-related intervention as they could view information from the comfort of their own homes and be free from any distractions. Zotti et al. (2019) indicated that participants preferred WhatsApp as a mode of a delivery for an intervention as they could easily access the information any time. Muntaner-Mas et al. (2017) mentioned similar results when describing the participants preference for convenience and easy-accessibility in terms of intervention delivery.

Limitations to mobile devices as a mode of delivery for the parent guidance intervention include that some parents may encounter literacy barriers or may not be fluent in the language used for message content (Eneriz-Wiemer et al., 2014). Parents in a study by Garcia-Dominic et al. (2010) stated that interactive parent meetings were beneficial and may facilitate better understanding of content than written messages. However, participation at these meetings is often poor as many parents are faced with time constraints and transport barriers (Barlow et al., 2005; Kelleher et al., 2017; Winslow et al., 2009).

Therefore, although mobile devices offer many advantages over more traditional modes of information delivery, some parents still prefer hands-on workshops with social support (Zeedyk et al., 2008). Thus, ideally more than one mode of delivery should be utilised for delivery of parent guidance interventions, in order to cater to the needs of parents from a vast array of backgrounds.

### **2.4.3 Tailoring nutrition-related content**

It has been well documented that parents in resource-constrained communities have limited access to information about nutrition, and as a result a lack of understanding about the various facets of nutrition, including which foods should be included in a healthy diet, the amount of food needed to sustain a healthy lifestyle, and the nutritional value of various food groups (Davis et al., 2013; Pretorius and Sliwa, 2011; Vorster et al., 2013). If parents can be adequately informed about correct nutritional practices, they are more likely to engage in healthy dietary behaviours (Dickson-Spillmann & Siegrist, 2011; Miller & Cassady, 2015; Vorster et al., 2013; Zarnowiecki et al., 2012). This in turn will increase the likelihood that their children and other community members engage in similar behaviours.

In resource-constrained communities, the predominant food group consumed is most often energy-rich carbohydrates which are inexpensive to purchase and fairly easy to prepare (Steyn & Ochse, 2013; Vorster et al., 2013). Multiple studies have found that parents in resource-

constrained communities are concerned about the affordability of certain foods, which prevents them from purchasing wider varieties of food groups (Caprio et al., 2008; Davis et al., 2013; Pretorius & Sliwa, 2011; Scaglioni et al., 2011). Parents are thus more likely to purchase foods which have been processed or prepackaged as these are less expensive than healthier food options (Caprio et al., 2008; Steyn & Ochse, 2013).

In terms of motivation for healthy eating practices, it has been found that most parents understand the benefits of healthy eating and express desire for consuming healthy foods and maintaining a balanced lifestyle (Atkinson et al., 2007). However, they frequently cite their children's eating habits and preference for unhealthy food as the reasoning behind not sticking to healthy eating schedules (Power et al., 2010; Scaglioni et al., 2011). This preference for unhealthy food products is a common trend in resource-constrained communities, despite growing awareness of the importance of healthy eating (Davis et al., 2013).

In addition, parents in resource-constrained communities noted difficulties in finding trustworthy sources of information about food consumption. Globally, parents are often exposed to conflicting and confusing information about healthy eating guidelines (Davis et al., 2013). In low-income areas in particular, parents tend to receive information via friends and family, which may be misleading (Davis et al., 2013). Parents in resource-constrained communities thus requested that access to trusted and reliable sources of information was necessary for following a healthy diet (Nguyen et al., 2015). Parents in these areas also requested further information on methods for preparing and preserving food- this need for practical guidelines has also been noted by Pienaar and Strydom (2012). Concerns about diseases and their link with nutrition in resource-constrained communities have also been noted by Kimani-Murage et al. (2010), Mayosi et al. (2009) and Pienaar and Strydom, (2012).

#### **2.4.4 Tailoring physical fitness content**

Parents in resource-constrained communities have been found to hold little knowledge about the importance of physical activity and the benefits thereof (Davis et al., 2013). Findings from Withall et al. (2011) show that parents, in particular, require guidance on finding motivation for exercise especially in terms of time and energy barriers. Increasing awareness of the importance of physical activity among members of these communities may enhance their perceived capability to remain physically active and encourage their family members to increase daily activity levels as well.

In addition to guidance on the frequency, intensity and type of exercise required for a healthy lifestyle, parents in the study by Botha et al. (2013) requested ideas for integrating exercise into their daily routines despite limited access to gyms or other health equipment. It has been found that parents in resource-constrained communities perceive that expensive gym equipment is necessary for maintaining physical fitness, and thus see this as a barrier to engaging in regular exercise (Chang et al., 2017).

Problems in maintaining a routine for exercise and encouraging family members to join are additional concerns noted by parents in terms of barriers to physical activity (Bois et al., 2005). Despite parents being aware of the need to encourage their children to exercise, parent involvement in promoting their child's fitness is poor (Beets et al., 2007). Therefore, there is a need to guide parents on ideas for encouraging children to participate in exercise routines, as well as find motivation themselves to increase their physical fitness.

In resource-constrained areas, work demands experienced by parents often limit their time and availability to exercise (Clayton et al., 2017). Thus, parents require support in finding a way to schedule exercise into their daily routine. De la Torre-Cruz et al. (2019) also found that parents need ideas for low-cost types of activities that can be done as a family, and which will encourage all family members to participate. As such, guidance on the creation of home-made exercise equipment or gym routines is a necessity in the parent guidance intervention.

#### **2.4.5 Tailoring psychosocial well-being content**

By teaching parents how to better understand and communicate with their children, they will be more likely to improve their child's lives and help them build a better future (Vella et al., 2015). Interventions which provide support for parents with regard to child development, emotional well-being, and resilience have been found to produce positive outcomes in both the child and parent's life (Appleton et al., 2016; Bateson et al., 2008; Vella et al., 2015).

Saunders et al. (2013) found that parents required guidance on parenting strategies and ways to instil discipline at home without crossing boundaries. This is similar to findings by Lansford and Deater-Deckard (2012), who suggest parents in low-income areas struggle to address child behaviour problems at home due to poor knowledge on discipline practices. In addition, parents expressed a need for support in communicating effectively with their children and finding ways to improve relationships with them (Mansfield et al., 2013).

Stress encountered by parents has also been noted as a major barrier to normal family functioning (Cluver et al., 2018; Han & Rothwell, 2014). In resource-constrained communities stress levels are often high due to financial difficulties and job insecurity (Conger et al., 2010; Gudmunson et al., 2007). A study by Lachman et al. (2016) which focused on parents in resource-constrained communities in South Africa, also found that parents require guidance on using coping strategies for dealing with stress, and ways in which they could prevent stress from negatively impacting family dynamics.

Finally, parents in resource-constrained communities are often less involved in the children's education, mostly because a lack of self-efficacy and confidence in their abilities to support them (Wilder, 2017). Providing parents with support and encouragement by means of a parent guidance intervention may improve their confidence and increase the likelihood of their involvement in their child's education.

## **2.5 THEORETICAL FRAMEWORK**

As a guiding framework for this study, I relied on Bronfenbrenner's bioecological model of development (Bronfenbrenner, 1979). This theoretical framework emphasises the significance of context and the environment in influencing the growth and decision-making of individuals. Furthermore, it is based on interdependence between individuals, and because interdependence is the basis of community living, I thus find it relevant for my study which involves parents, schools, and children in two resource-constrained communities.

Bronfenbrenner's (1979) theory highlights the importance of a number of systems in understanding interdependence between individuals in a community. Each system provides a unique context for the developing individual in which to grow and interact with other individuals. Bronfenbrenner situates the developing learner within a series of systems, namely the microsystem, mesosystem, macrosystem, exosystem, and the chronosystem (Bronfenbrenner, 1979). This model recognises the interconnection and interdependence between individuals, families, communities, and their surrounding physical and social environments. An important principle of Bronfenbrenner's bioecological model that guided my research relates to the assumption that a single action or change in one of the systems may affect all other systems and interconnections (Bronfenbrenner, 1994; Rosa & Trudge, 2013; Swart & Pettipher, 2016). This implies that change in an individual's system (for example the introduction of parent guidance interventions through mobile devices) can result in changes in both school, community, and other individual's systems.

Against the background of the present study, I aimed to gain insight into how parent guidance through mobile devices can be applied to other systems and how it affected the home and school environment of both the parents and the learners. In terms of parent guidance, by facilitating parents' understanding of their children's needs, parents can support their own children which in turn may improve their success in school.

Bronfenbrenner's bioecological model (Bronfenbrenner, 1979) is relevant to the present study because it states that the development of a child occurs at home, in school and in the community; meaning that when parents, teachers, and other stakeholders are working collaboratively, common goals can be reached (Bronfenbrenner, 1979; Donald, 2014; Ryan, 2001). Some of these goals include good health and well-being; reduced inequality; and quality education, which are all Sustainable Development Goals (SDGs) that have been implemented by the United Nations (2016).

Bronfenbrenner's theory consists of five subsystems consisting of a microsystem, mesosystem, exosystem, macrosystem and chronosystem (Bronfenbrenner, 2005; Hess & Schultz, 2008; Rosa & Tudge, 2013). The microsystem represents the individuals most immediate surroundings. Microsystems consist of any immediate relationships or organisations that an individual interacts with (Bronfenbrenner, 1979; Ryan, 2001). In the context of this study, the parent participants interact with their children, other family members, social groups, workgroups, and with their children's school. The real power of the microsystem in this study is that the parents involved may pass on their knowledge gained from the health promotion intervention to their own children and other family members (Hess & Schultz, 2008; Swart & Pettipher, 2016).

The mesosystem can be explained as the interrelationships that exist between different microsystems (Bronfenbrenner, 1979). Parents' involvement in their child's health and well-being can have a positive influence on the child's academic, social and emotional levels. The mesosystem moves the individual beyond the typical dyad or two-party relation (Ryan 2001; Swart & Pettipher, 2016). This system consists all the factors which influence individuals and their perceptions of, for example, their own nutrition-related practices and physical activity levels (Swart & Pettipher, 2016). Parents in this study will receive information about health and well-being from people in the mesosystem. The actions of the community (mesosystem) will thus have an influence on community members' (parents') nutrition, physical activity and psychosocial well-being choices in the microsystem, and will also have a reciprocal influence

on the community's nutrition, physical activity and psychosocial well-being choices in the macrosystem.

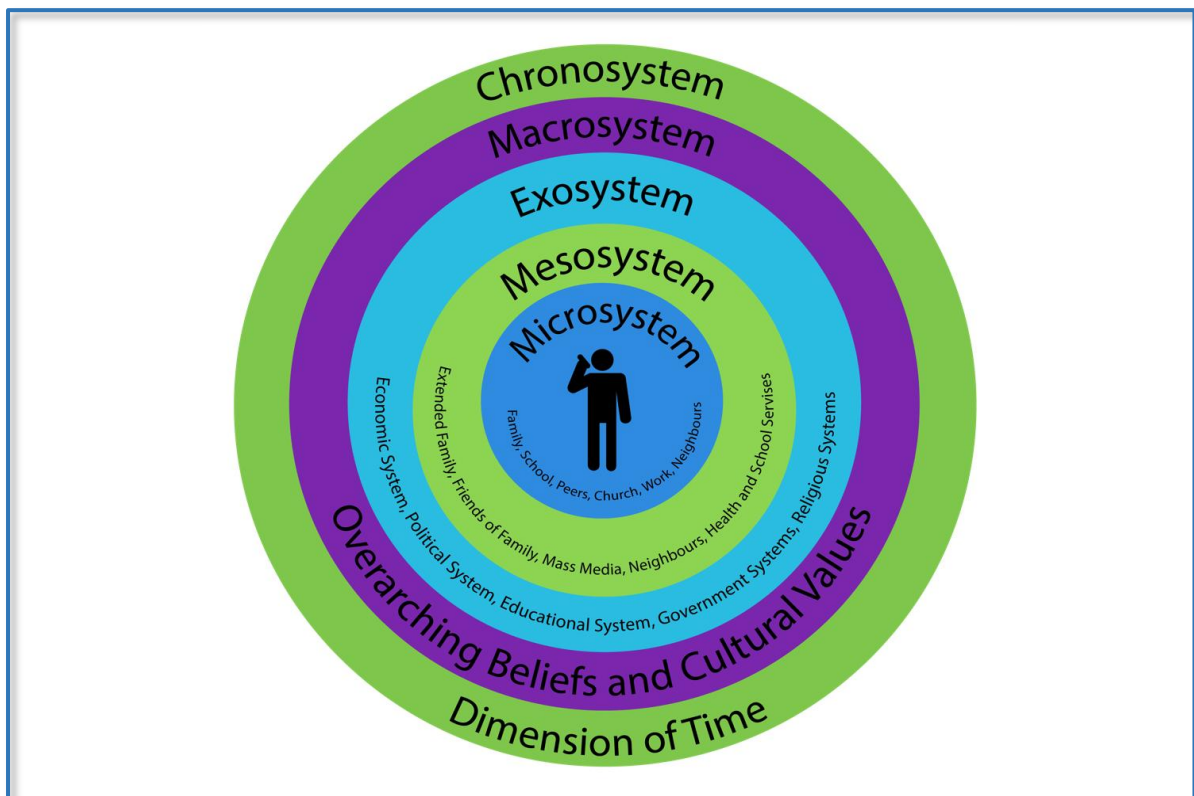
The exosystem refers to the link between systems in which individuals do not play any active part, but which have an indirect effect on the individual's developmental outcome (Bronfenbrenner, 1979; Hess & Schultz, 2008; Rosa & Tudge, 2013). The exosystem incorporates social settings and the broader community all of which have an indirect effect on the individual's perceptions (Bronfenbrenner, 2005; Swart & Pettipher, 2016). The community context within the resource-constrained community where this study was conducted can be viewed as the exosystem. Within the community context, health promotion interventions offer benefits in the form of the potential to change community members' attitudes and perceptions concerning nutrition, physical activity, and psychosocial well-being (Shaffer & Kipp, 2013). Furthermore, the perceptions of health held by the parents participating in this study may potentially influence the perceptions of teachers and parents at other schools to become involved with and develop health promotion interventions at more South African schools.

The fourth system discussed by Bronfenbrenner (1979) is the macrosystem, which describes the overarching social values, cultural beliefs, customs, laws, and political ideologies of the society within which the individual exists. The interactions amongst all these nested environments allow for examination as to how patterns of interactions within these systems influence one another and affect an individual's developmental outcomes (Hess & Schultz, 2008; Swart & Pettipher, 2016). If successful, health promotion interventions providing guidance for parents of school learners may impact policy development and potentially ensure that all schools develop and maintain such interventions for their parents.

Finally, the fifth subsystem described by Bronfenbrenner (1979) is the chronosystem. This system refers to the influence of time on the developing individual (Bronfenbrenner & Morris, 2006; Hess & Schultz, 2008). This study aimed to promote change in the learners and parents' perceptions and attitudes toward health in order to encourage them to change over time and pass on these new attitudes to subsequent generations.

The parent guidance intervention in this study will potentially lead to change within the microsystems, namely the learner's households and the school, by conveying knowledge and skills to the parents of these learners. The parents will be provided with information related to their nutrition, physical activity, and psychosocial well-being which they can impart to their

children and other members of the community. As a result, changes will take place within different microsystems, and these changes can potentially ripple out across the various systems and eventually influence the whole community (Boemmel & Briscoe, 2001; Ryan, 2001). Furthermore, if there is change in the community, even further positive change can occur on the meso-level within multiple microsystems, as well as across the different exosystems linked to the community, and finally the macrosystems which impact the community as a whole.



**Figure 2.1:** Visual representation of the conceptual framework of the study adapted from Bronfenbrenner's bioecological model (Bronfenbrenner & Morris, 2006)

## 2.6 CONCLUSION

I conducted a literature review to have a better understanding of the current health situation in South Africa and explore ways in which better health practices can be spread among resource-constrained communities, who are most at risk for ill-health. I explored ways in which parents can be involved in practices that promote health, particularly through means of mobile devices. After discussing the literature, I concluded this chapter with an exploration of the theoretical framework which guided me through this study. In Chapter 3 I will discuss the research process in detail. I will furthermore explain my paradigmatic perspectives, research design, and the methodological strategies I utilised for this study. I will also elaborate on the quality criteria and ethical considerations I followed during the study.



## CHAPTER 3- RESEARCH DESIGN AND METHODOLOGY

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### 3.1 INTRODUCTION

In this chapter, I discuss the research process with reference to research design, the choice of research participants and the research site, and the process I undertook for data generation and documentation, and data analysis. I also explain the steps I took toward fulfilling the quality criteria and following ethical guidelines.

### 3.2 PARADIGMATIC PERSPECTIVES

A research design directs the researcher's interpretation of reality and thereby allows the researcher to gain a better understanding of the worldviews and behaviours of the participants (Henning et al., 2004; Mertens, 2010). Research paradigms are a crucial component of the practice of meaning-making throughout the data generation and analysis stages of the study (Nieuwenhuis, 2007).

#### 3.2.1 Epistemological Paradigm: Interpretivism

I selected interpretivism for this study as it allowed me to interact with the university researcher participants and gain an in-depth understanding of their perceptions of a parent guidance intervention on health promotion practices through mobile devices (Clarke, 2009; Goldkuhl, 2012). The interpretive approach enables the researcher to extract in-depth and thorough data from participants, together with forming an understanding of the participants' worldviews in a specific context (Terre Blanche & Durrheim, 2002). I was able to interact and collaborate with the participants through PRA-based workshops. By following the interpretive paradigm, I valued the ideas and experiences of each of the participants and ascertained that I did not generalise their views to other settings, but rather focused on the context they were referring to (Neuman, 2014; Terre Blanche et al., 2006).

By utilising small PRA-based workshops, I could facilitate the participants in sharing their recommendations and providing their views of the phenomena under study, and to grasp an understanding of their perceptions of the parent guidance intervention through mobile technology. Through actively involving myself in the data generation process, I was also able to modify the data generation strategies where needed. Another advantage of interpretive

research as described by Williamson (2006) is that this type of research is suitable for “why” and “how” questions which necessitate thorough exploration on the part of the researcher. In this way, the nature of this approach is compatible with this study which aimed to obtain in-depth information from the participants involved (Nieuwenhuis, 2007). As such, interpretivism allowed me to obtain trustworthy results, while participants personal experiences and ideas were generated.

Possible limitations associated with interpretivist research include lack of objectivity and generalisability (Chesebro & Borisoff, 2007; Ridder, 2019). In terms of lack of generalisability of the interpretive approach, my focus in this study was not generalisation but rather on the in-depth experiences of the development and implementation of a parent guidance intervention through mobile technology. Therefore, I did not view generalisability as a limitation. Through the use of reflexivity I attempted to counteract challenges associated with the objectivity of the study (Jackson et al., 2007). I kept a reflective journal throughout the research process, reflected on my involvement in the study, and noted any possible occurrences of bias. I also engaged in member-checking with the participants to confirm my interpretations of their experiences (Creswell, 2014).

### **3.2.2 Methodological approach: Qualitative research**

The interpretivist approach is often used together with a qualitative research approach (Ritchie et al., 2003). I thus followed a qualitative research approach (Creswell, 2014) for this study. According to McMillan and Schumacher (2014), a qualitative research approach utilises an emic perspective in that meaning is derived from the perspectives of the participants in the study. In this study I explored the perceptions of participants on the development and implantation of a parent guidance intervention through mobile devices.

Some of the advantages of the qualitative research approach as used in this study include that the phenomena under study can be researched through a complex multi-faceted lens, while still being contextually sensitive (Marshall & Rossman, 2014). Observations by qualitative researchers are seldom simplified and rather studied in all their complexity (Leedy & Ormrod, 2015). I was able to explore the perspectives of the participants in detail to provide thick and rich descriptions for the present study. This allowed me to form a comprehensive understanding of the research setting and gather detailed information on the phenomena under study (Creswell, 2014).

A challenge I experienced as a novice qualitative researcher was the influence of my own personal biases, which I remained aware of through use of a reflective journal (McMillan & Schumacher, 2014). I also addressed this bias by debriefing with my supervisor on a regular basis (Creswell, 2014). In addition, I ensured that I documented the entire research process with precision in order to maintain an audit trail and improve the transparency of the study (Bryman, 2017).

Another challenge I faced during the present qualitative study was that the amount of data generated made the process time-consuming (McMillan & Schumacher, 2014). I had however already acknowledged that I would need to allow myself sufficient time for the research process and devote the time needed into my analysis to reach dependable findings.

### **3.3 RESEARCH METHODOLOGY**

In this section, I discuss information regarding the participants in the present study, the selection of the research sites, and the data generation, documentation, and analysis procedures that I employed for this study of limited scope.

#### **3.3.1 Research design**

I implemented a descriptive case study research design (Creswell, 2014) and applied Participatory Reflection and Action (PRA) principles (Chambers, 2003). A descriptive case study design allows for in-depth exploration of a specific phenomenon through one or more cases in a specific context (Creswell, 2007; Yin, 2017). Consequently, a descriptive case study design enables the researcher to generate a comprehensive data set from one or more interconnected systems over time (Creswell, 2007; Yin, 2017). In support of a descriptive case study research design, PRA focuses on the participants in the study and their specific world views (Leedy & Ormrod, 2015). PRA allows participants to engage in analysis and reflection throughout the research process, thereby actively involving and allowing them greater agency in the process of knowledge production (Ferreira & Ebersöhn, 2012; Ridder, 2019).

PRA can be utilised in several contexts (Cohen et al., 2007) and enables improved understanding and restructuring of practice if necessary due to its flexible nature (Cohen et al., 2007). I utilised a bottom-up approach in this study when I applied PRA principles as I recognised and acknowledged the capabilities of the participants throughout the study (Leedy & Ormrod, 2015). My study rested on the assumption that the participants were the experts, thus I respected each of their perspectives and remained open to learning from them (Chambers,

2003). Finally, I also assumed that by using PRA principles, positive change could occur by means of empowering the participants and allowing their ideas and opinions to be heard (Bhandari, 2003).

Through implementation of PRA principles, I could use multiple data generation strategies (Yin, 2017) to obtain a thorough understanding of the participants' experiences (Creswell, 2014). I was able to engage the participant's using innovative PRA-based data generation strategies. The active involvement of the research participants is beneficial as it allows them to use the research process as a valuable resource that could help them enhance their knowledge (De Vos et al., 2005).

Challenges linked to PRA-based research include the possibility that the participants might not commit to being involved in the full length of the study, power balance problems, and egalitarian interactions (MacDonald, 2012). Because of this, I ensured that I remained aware of the different forms of leadership necessary at each stage of the research process (Neuman, 2014). It was also crucial that I informed the participants about the purpose of the research and explained its time-consuming nature. A further challenge associated with PRA-based research is that the data generation and data analysis takes time and can be complex (De Vos et al., 2005). The participants in this study contributed their time to giving their opinions and ideas on the development and implementation of parent guidance interventions through mobile devices. I remained committed to gaining a deep understanding from these participants and thus allowed ample time for data generation and data analysis.

### **3.3.2 Selection of participants**

In line with the objective of qualitative research, that is the in-depth understanding of a specific phenomenon, the selection of participants for the study was linked to the research question, methodology, and the purpose of the study (Creswell, 2014; Mouton, 2001). The participants in the present study were purposively (Creswell, 2017) and conveniently (McMillan & Schumacher, 2014) selected and consisted of the parents (n=60) of Grade 1-7 learners in two resource-constrained communities in Pretoria, Gauteng. In addition, seven (n=7) participants were university researchers in particular fields related to health promotion and parent guidance intervention through mobile devices. I included one university researcher from the Department of Nutrition who specialised in dietary habits (n=1), one university researcher from the Department of Physiology who specialised in physical fitness and components thereof (n=1), two university researchers from the Department of Educational Psychology who specialised in

psychosocial and emotional well-being (n=2) and one university researcher who was an expert in the field of technology and could provide input on the modes of delivery for a parent guidance intervention utilising mobile devices (n=1). I also included the principal of School A (n=1) who was able to provide insight on the needs of parents of the learners at his school. Finally, I included the postgraduate student (n=1) who conducted the first stage of the study involving the obtainment of baseline data on the needs and expectations of parents for a parent guidance intervention in resource-constrained communities<sup>1</sup>. The selection criteria included that the participants could communicate in English and were willing to participate voluntarily after giving informed consent.

Some of the advantages of purposive sampling included that it is cost-effective and not overly time-consuming, and that it allows the researcher to focus on a certain facet of the topic at hand (Smith, 2007). I recognised that over-representation was a possible limitation of the sampling method and aimed to prevent bias by ensuring I made detailed observations through use of a field notes and engaged in debriefing and reflections sessions with my supervisor.

### **3.3.3 Data generation and documentation**

This section details the data generation and documentation techniques I used for the study to produce my findings.

#### **3.3.3.1 PRA-based workshops**

Ferreira (2012) states that PRA-based workshops offer an inexpensive data generation strategy and allow for rich contextual information to be gathered from participants. In addition, PRA-based workshops encourage participants to continually reflect on their responses, thereby actively involving them in the analysis process and raising awareness of their situation in the community (Ferreira & Ebersöhn, 2012). At the conclusion of the PRA-based workshops, I engaged in member checking to improve the rigour of the study (Anney, 2014). I aimed to ensure that my interpretations of the participants responses and the data I generated captured an accurate reflection of the participants' experiences and perceptions.

I co-facilitated two PRA-based workshops with the university researchers and allowed them to share, enhance, and reflect upon their knowledge and experiences for a parent guidance

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<sup>1</sup> Van der Merwe, A. (2019). The needs and expectations of parents for guidance on healthy food, nutrition and lifestyle behaviour. *Unpublished MEd Dissertation*. University of Pretoria.

intervention through mobile devices (Chambers, 2003). Both workshops were conducted in English. The first PRA-based workshop was conducted in March 2019 and involved the university researchers (n=7). The university researchers were experts in the fields of nutrition (n=1), physical fitness (n=1), psychosocial well-being (n=2) and technology (n=1). I also included the postgraduate student who conducted the previous phase of the project (n=1), and the school principal of School A (n=1) in the study. The workshop lasted approximately six hours. The researchers were asked to create posters on the content that may be included in a parent guidance intervention through mobile devices for each field.

The second PRA-based workshop was conducted in April 2019 and involved five of the university researchers who were present in the first PRA-based workshop, these being the experts in the fields of nutrition (n=1), physical fitness (n=1), psychosocial well-being (n=2) and technology (n=1). The university researchers were asked to discuss the implementation of the parent guidance intervention through mobile devices. The workshop lasted approximately three hours. The transcripts from the audio-recordings, posters, field notes and my reflective journal from the PRA-workshops were later analysed (Halcomb & Davidson, 2006). Throughout both PRA-based workshops, I viewed the participants as the experts, particularly with regard to what they believed should be included in a parent guidance intervention by utilising mobile devices (Chambers, 2003).

### **3.3.3.2 Observation**

I utilised observation to gather first-hand information from the participants during the PRA-workshops (Drew et al., 2007; Creswell, 2014). I observed the researchers during the PRA-based workshop and documented my observations by using field notes and photographs. By means of triangulation of data, detailed information could be obtained through observation of the PRA-based workshops. Observation enabled myself as the researcher to gain rich data on the researchers' perceptions of the parent guidance intervention by listening to and watching them note their ideas (Nieuwenhuis, 2007; Creswell, 2014).

Observation does however imply a number of possible challenges. This technique requires management of deception and impression, which meant that as the researcher I had to ensure I was being objective throughout the process (Nieuwenhuis, 2007; Creswell, 2014). I ensured that I maintained an open-minded and non-judgmental stance while observing the participants in order to remain objective (Bell, 2010; Creswell, 2014).

A further challenge related to observation is that the participants may experience observation as intrusive and it was thus important that I listened attentively established rapport with the participants before utilising observation as a data generation tool (Bell, 2010). I did this by engaging in warm conversation with the participants and clearly explaining the purpose of the PRA-based workshop and what to expect thereof (Nieuwenhuis, 2007; Creswell, 2014).

### **3.3.3.3 Field notes**

I documented my observations of the PRA-based workshops in the form of field notes (McMillan & Schumacher, 2014; Phillippi & Lauderdale, 2018). As described by McMillan & Schumacher (2014), field notes are recordings of the researcher's observations and contextual data obtained during the data generation processes. Furthermore, field notes are useful in helping the researcher create an understanding of the participants' meaning-making processes (Spradley, 2016).

I compiled field notes while observing the participants in the PRA-based workshops. Rosman and Rallis (2003) explain that field notes consist of two components, those being running records and observer comments. Running records specifically detail the physical environment, activities, and interactions and participants in the research field (Rosman & Rallis, 2003). Observer comments are developed from notes on the research procedure itself, which would consist of the emotional reactions, questions pertaining to meaning, or the researchers thought processes involved in modifying the design (Rosman & Rallis, 2003). I made use of both observer notes and running comments in this study (Rosman & Rallis, 2003).

A potential limitation of using field notes is the time period that occurs between data generation whilst in the field and creating field notes. This lapse can influence the trustworthiness of the data (Bell, 2010). I documented field notes throughout the research process and captured my reflections in a reflective journal to improve the trustworthiness of the study. My field notes are captured in Appendix G.

### **3.3.3.4 Reflective journal**

Keeping a reflective journal enabled me to document my perceptions and progress as a researcher throughout the research process. James et al. (2008) define a research journal as a written or verbal narrative which is developed by the researcher over the course of the research. Engaging in continual self-reflection was important to enhance the authenticity of my study (Bassot, 2016). Self-reflection also allowed me to make connections between various

components of the research process and clarify my ideas (Bassot, 2016). In this way I was able to maintain an audit trail (Connelly, 2016) and provide proof of the results for my discussion in Chapter 4. The journal also assisted me in reflected on my own personal biases on the participants contributions and any other ethical dilemmas I may have encountered.

Potential challenges associated with reflective journals include its time consuming and subjective nature (Mulhall, 2003). To address these challenges, I regularly addressed my potential bias and communicated with my supervisor about my reflections to guard against subjectivity (Ortlipp, 2008). I allowed myself sufficient time for journaling and noted any reflections I had while in the field immediately and then elaborated on them later (Ortlipp, 2008).

### **3.3.3.5 Audio and visual data documentation**

In the course of the data generation process, I made use of audio and visual recordings. Audio and visual data enhanced the credibility of my study and provided a permanent record which could be used at any time during the data analysis process (McMillan & Schumacher, 2014). I recorded and transcribed all discussions in the PRA-based workshops, and this provided me with real-time chronological accounts of the data generation (Nieuwenhuis, 2007). McMillan and Schumacher (2014) describe visual data as photos of social settings which depict participant behaviour and interaction.

Photographs were used to capture interactions between participants in the PRA-based workshops. In addition, I captured photographs of the posters made in the workshops. This allowed me to keep a record of what was created during the data generation sessions, so that I could analyse it later (Patton, 2002).

A limitation of audio and visual data documentation is that some participants may not want to be recorded, and that transcribing the data is a timely process which can result in large amounts of data to analyse (Bell, 2010). I remained aware of these challenges and ensured that I directed the research procedure in a time-effective manner in order to complete the analysis and interpretation according to my research plan. No participants in this study stated that they did not want to be recorded (McMillan & Schumacher, 2014).



### **3.4 DATA ANALYSIS AND INTERPRETATION**

I made use of Braun and Clarke's (2006) and Creswell's (2014) guidelines for conducting inductive thematic analysis. To make sense of the research participants' responses, I identified various themes from the data and then analysed these themes into smaller components of descriptive information (Vaismoradi et al., 2013). By utilising inductive thematic analysis, I could explore trends and patterns in the data regarding the parents' and university researchers' perceptions and ideas for a parent guidance intervention through mobile devices (Mouton, 2001).

Following Braun and Clarke's (2006) six-step guidelines for thematic analysis, I first immersed myself in the data by transcribing the posters and audio recordings, I then familiarised myself with the data acquired by reading and rereading all of the data. This enabled me to get a general overview of the data. I also took note of "patterned" responses (Braun & Clarke, 2006, p.10) during this step so as to determine whether the data had revealed important information related to my research question (Braun & Clarke, 2006).

After this, I formulated initial codes for the data and identified the themes and patterns that were most prominent. I then reviewed the themes in order to ensure they were pertinent to my research question, and to ensure I had not missed any possible additional themes from the data. During this stage I reviewed the themes and sub-themes with my supervisor. I then named the themes I had identified and provided a working definition for each. Finally, I was able to write this mini-dissertation following the aforementioned process (Braun & Clarke, 2006).

A potential challenge of inductive thematic analysis is that the researcher's own subjective interpretations and observations may influence the outcomes of the analysis (Riger & Sigurvinsdottir, 2016). In order to guard against this challenge, I aimed to avoid developing themes that directly spoke to my research question. I acknowledged that achieving total objectivity may not be possible in qualitative research, but I still endeavoured to complete the data analysis in a fair and balanced way (Leedy & Omrod, 2015)

### **3.5 QUALITY CRITERIA**

I aimed to uphold Lincoln and Guba's (1985) criteria for maintaining the trustworthiness of this study. These criteria are discussed in the subsections below.

### **3.5.1 Credibility**

Credibility in research refers to the truthfulness of the research findings (Schwandt et al., 2007). Research that is credible provides accurate and believable findings, as well as an accurate view of the phenomena being studied (McMillan & Schumacher, 2014). The credibility of a study can be enhanced through use of the following strategies; extended time spent in and engaged with the field, thorough and continuous observation, adequacy of materials used in the study, triangulation, and making notes in a reflective journal (Schwandt et al., 2007).

I relied on member checking and regular debriefing sessions with my supervisor to enhance the credibility of my findings (Terre Blanche & Durrheim, 2002). The member checking was important in that it allowed me to confirm the analysis and interpretations of the data generated in collaboration with the participants. Triangulation is another strategy I used to enhance the credibility of my study. Patton (2002) states that triangulation ensures that the finding of the study do not represent only a single viewpoint or source. By utilising various data generation and documentation strategies, I ensured that the interpretations of the data were consistent and concise. As already mentioned, I engaged in regular debriefing sessions with my supervisor about my interpretations and through use of a reflective journal I was able to note any biases or subjectivity that may have influenced my data.

### **3.5.2 Transferability**

If a study adheres to transferability, the data generated from it can be applied to another setting or context (Marshall & Rossman, 2014). In order for a study to be transferable, rich and thick descriptions of the research process must be presented so that findings can be transferred to other populations and cases (Anney, 2014). By using purposive sampling and reflective journaling, I enhanced the transferability of the data generated on my study (Lincoln & Guba, 1985; Houghton et al., 2013). My use of triangulation also improved the transferability of this study as I used multiple sources of data, those being PRA-based data, observations, reflective journaling, field notes, and audio and visual documentation.

### **3.5.3 Dependability**

The dependability of a study is the consistency of the generated data, and whether the findings of the study would be the same if it was conducted again (Anney, 2014). A key strategy for enhancing the dependability of a study is through the use of an audit trail (Morrow, 2005; Ryan-Nicholls & Will, 2009). I developed an audit trail throughout my study by continually

documenting the research process in detail. My audit trail consisted of evidence of the research methods and how they were carried out. I also included transcripts, my field notes, reflective journal, and photographs from the study in the audit trail (Cope, 2014).

### **3.5.4 Confirmability**

Confirmability refers to the accuracy of the data generated for the study (Lincoln & Guba, 1985). The data should provide an accurate representation of the participants' views, and should not be the researchers' fabrications of information (Houghton et al., 2013). A study that is confirmable provides objective findings (Marshall & Rossman, 2014). Triangulation, member checking, and the use of a reflexive research process were essential in improving the confirmability of my study (Morrow, 2005; Ryan-Nicholls & Will, 2009). I included quotations from the participating researchers in the present study in Chapter 4 to provide substantiation for my findings.

### **3.5.5 Authenticity**

In order for a study to adhere to the principle of authenticity, the views and ideas of the research participants must be represented fairly and truthfully, thus providing an accurate account of their social lives (Neuman, 2014). Authenticity is achieved through ensuring fairness is representing the participants, so as to not represent the subjective views of the researcher (Cope, 2014). In an attempt to ensure authenticity of the generated data, I conducted member checking (Houghton et al., 2013). I also included quotations from the research participants in Chapter 4 of my study to capture their true perspectives. I remained aware of my role in documenting the real voices of the participants and further confirmed this by recording the PRA sessions, which allowed me to reflect back whenever necessary.

## **3.6 ETHICAL CONSIDERATIONS**

This study adhered to the guidelines authorised by the Ethics Committee of the Faculty of Education at the University of Pretoria (Ethics Committee, 2015). I abided by the standards of: 1) Voluntary participation and informed consent; 2) Confidentiality, anonymity and respect for privacy; and 3) Trust and protection from harm (Denzin & Lincoln, 2005; McMillan & Schumacher, 2014). Furthermore, I dealt with all recorded data in a confidential manner by utilising pseudonyms when I reported results.

### **3.6.1 Voluntary participation and Informed consent**

Informed consent refers to ensuring participants understand what is entailed by the study before the researcher commences with the data generation process (Neuman, 2014). The participants should also understand that participation is voluntary and that they can withdraw at any time (Creswell, 2014). Creswell (2014) also notes the importance of explaining the purpose and procedures involved in the research as well as the right of the participants to ask questions whenever necessary. I received informed consent from the parents participating in the study before I commenced with data generation.

### **3.6.2 Confidentiality, anonymity and respect for privacy**

I aimed to maintain the privacy and confidentiality of the research participants in the study by ensuring that access to their data and names were restricted, as well as by using pseudonyms in order to ascertain no link could be made between the participants and the data (Neuman, 2014; McMillan & Schumacher, 2014).

I also undertook the responsibility of safeguarding the privacy of the research participants and preventing risk of exposure by handling the data in a professional and confidential manner (Rubin & Babbie, 2014). Primarily, I aimed to protect the participants, and then to protect myself as the researcher. I ensured that throughout the study the data was kept in a safe place at the University of Pretoria, where it will be safeguarded for a period of 15 years as stipulated by the ethical guidelines of the University of Pretoria. This data included my audio recordings, transcripts, field notes, posters, photographs and my reflective journal. This data was not distributed in any which way beyond the research team with whom I worked.

### **3.6.3 Trust**

Neuman (2014) emphasises the importance of ensuring the research participants are truthfully informed about the study throughout the research process. Any deception on behalf of the researcher toward the participants would increase the risk of obtaining information irrelevant to the study, because the aim of the study is to explore the realities of the participants, which are constructed by them themselves (Christensen et al., 2015; Leedy & Ormrod, 2015). The participants in this study were informed of the purpose of the study before the data generation process began. No use of deception was involved, and the participants were clearly informed of what to expect in order to safeguard them from experiencing any uncertainty or anxiety

about participating in the study. The participants were also made aware of the voluntary nature of the research.

### **3.6.4 Protection from harm**

Protection from harm in qualitative research refers to assuring that the physical and psychological well-being of the participants are safeguarded and that any potential risks of the study be reviewed beforehand (Neuman, 2014). I reviewed any potential risks and causes of harm before undertaking the study, but did not foresee any risks, neither physical nor psychological. I also respected the participants time and ensured that PRA workshops were scheduled at times that all were available.

Furthermore, I ensured that I did not undertake tasks that were above my area of expertise and remained in contact with my supervisor throughout the research process in order to remain professional at all times (Neuman, 2014). I provided clear and concise information about my study to the research participants and did not mislead them by withholding any information about the study (MacKenzie & Knipe, 2006).

## **3.7 CONCLUSION**

In this chapter, I provided a discussion of the paradigmatic approach and research design that guided my study. I also discussed the data generation and data analysis process I followed. Furthermore, I indicated how I aimed to meet the quality criteria of the study as well as the ethical guidelines stipulated.

In Chapter 4, I present the results of this study in terms of the themes and sub-themes that I identified during the data analysis process. Subsequent to this, I interpret the themes against existing literature in order to identify any similarities and contradictions in my findings.

# CHAPTER 4- RESEARCH RESULTS AND DISCUSSION OF FINDINGS

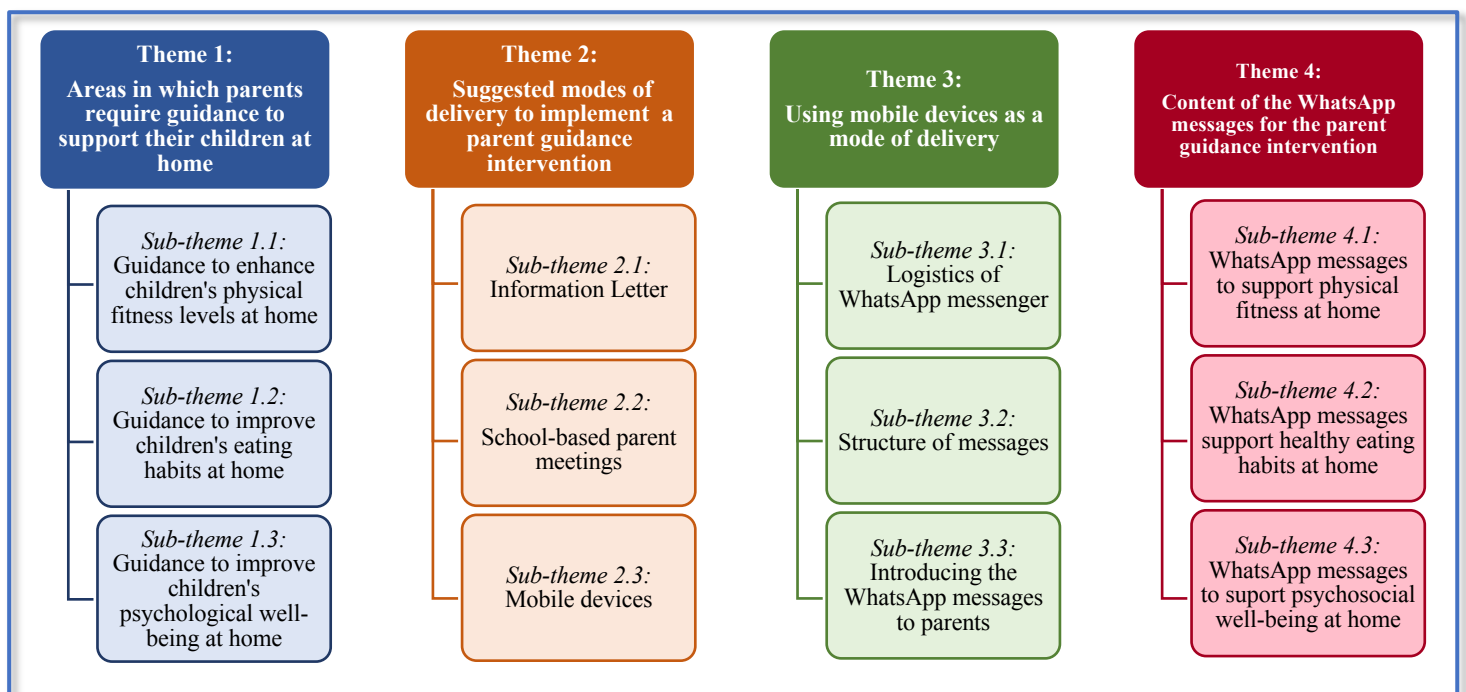
## 4.1 INTRODUCTION

In Chapter 3, I elaborated on the research process for the present study. I described the paradigmatic perspectives and discussed the case study research design while applying PRA principles. I also explained the data generation process, documentation, and analysis techniques that I utilised for this study as well as ethical considerations and quality criteria I adhered to.

In this chapter, I present the results of my study in terms of the four themes and related sub-themes I identified. I complement the discussions with photographs and excerpts from the data. I then discuss the findings of the study against the background of existing literature as included in Chapter 2.

## 4.2 RESULTS OF THE STUDY

In this section, I discuss the themes and sub-themes I identified through inductive thematic analysis. Figure 4.1 provides an overview of the results of the study.



**Figure 4.1:** Overview of the themes and related sub-themes

#### 4.2.1 Theme 1: Areas in which parents require guidance to support their children at home

Theme 1 captures the recommendations by university researchers for areas in which parents require guidance to support their children at home. Table 4.1 provides an overview of the inclusion and exclusion criteria I relied on to identify the three sub-themes.

**Table 4.1:** Inclusion and exclusion criteria for Theme 1

Theme/Sub-theme	Inclusion Criteria	Exclusion Criteria
<b>Theme 1:</b> Areas in which parents require guidance to support their children at home	All data referring to the areas that the parent participants required guidance on to support their children at home.	Any data referring to a mode of delivery of a parent guidance intervention that is not directly linked to the areas in which parents need guidance.
<b>Sub-theme 1.1:</b> Guidance to enhance children's physical fitness levels at home	Data referring to guidance to enhance children's physical fitness at home.	All data related to other aspects of well-being which could not be attributed to physical fitness.
<b>Sub-theme 1.2:</b> Guidance to improve children's eating habits at home	Data referring to guidance to improve children's eating habits at home.	All data referring to other factors associated with well-being which could not be attributed to nutrition and eating habits.
<b>Sub-theme 1.3:</b> Guidance to improve children's psychological well-being at home	Data referring to guidance to support children's psychological well-being at home.	All data referring to other components of overall well-being which could not be directly linked to psychosocial well-being.

##### 4.2.1.1 Sub-theme 1.1: Guidance to enhance children's physical fitness levels at home

Participants identified potential areas to enhance children's physical fitness at home, based on parents' needs. Parents seemed curious about why exercise is important and wanted information on the value of physical activity and the reasoning behind having to exercise (PRA-1, R-3: April 2019). In response to this, participants suggested explaining the benefits of exercise to increase parent understanding and motivation. One participant highlighted the

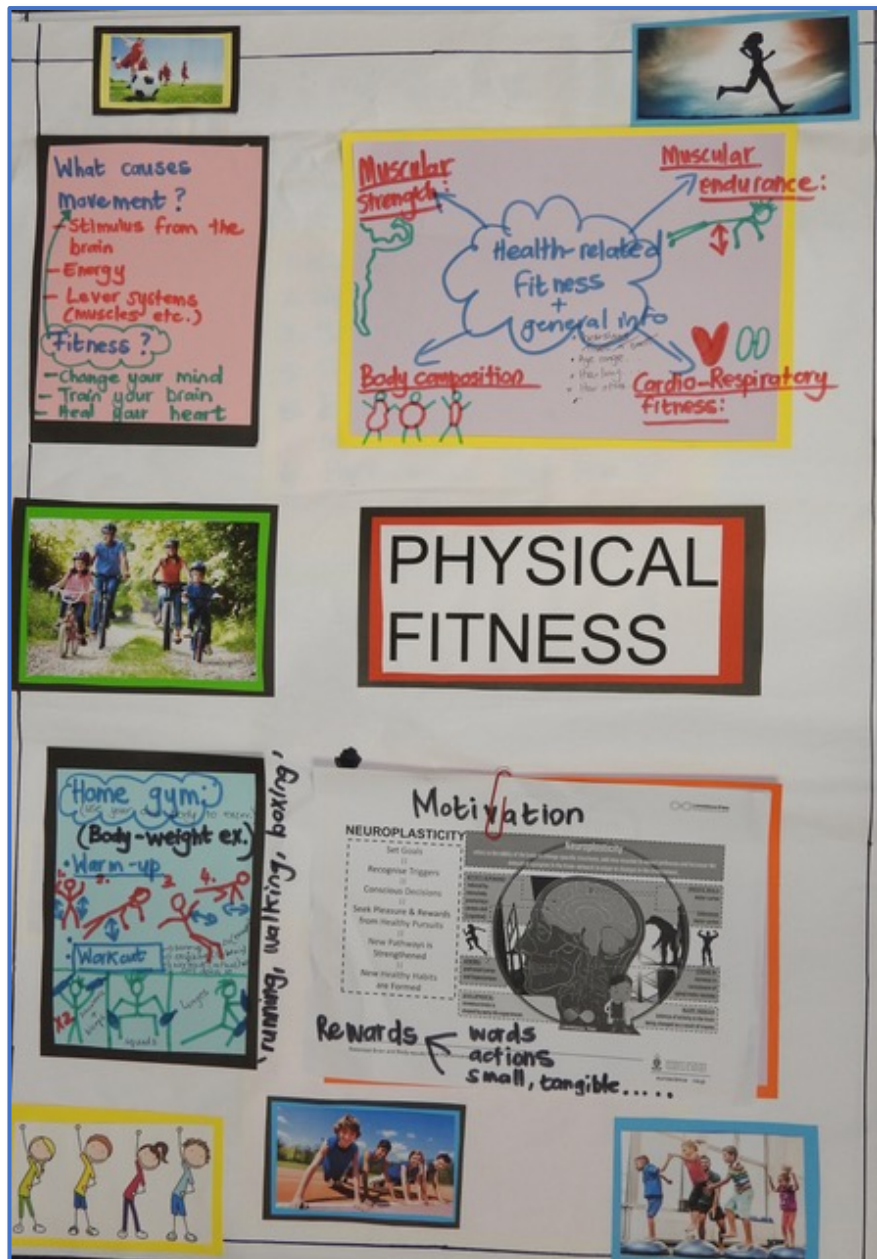
reason for explaining these benefits as follows: *“Many of them seemed to associate fitness with strenuous exercise that requires a lot of effort dedication. Therefore, developing an understanding of why it is so important to be fit may be necessary to increase motivation – or the willingness to put in effort”* (PRA-1, R-3: March 2019).

In addition to requiring an in-depth understanding of the reasons why exercise is important, parents also requested new and alternative ideas for maintaining fitness (PRA-1, R-3: March 2019). In this regard, one participant stated: *“It may be valuable to expose participants to alternative forms of exercise”* (PRA-1, R-3: March 2019). Parents seemed to have limited knowledge on the different forms of physical activity, and so participants suggested exposing them to different components of fitness (PRA-1, R-5: March 2019). Some alternative forms of exercise that the parents might enjoy were mentioned: *“We also want to give the parents new ideas for exercise- dancing, hula hooping, hiking, even yoga... it doesn’t always have to be running or weight lifting”* (PRA-1, R-5: March 2019)

Finally, some parents expressed the desire to engage in physical fitness activities together as a family but indicated barriers to this including a lack of discipline, time and equipment. Parents seemed to acknowledge the importance of exercise, but found it challenging to encourage their children to participate in physical activities (PRA-1, R-3: March 2019). To address these concerns and barriers, participants suggested that parents must be encouraged to develop home gym equipment around their homes (PRA-2, R-5: April 2019). This could further encourage them to set routines for physical activity as a family. An excerpt from my reflective journal read: *“Parents can use items around the home like chairs to do seated squats and water bottles as weights. If we can make the exercises easy to follow and make sure parents don’t need to buy any equipment, they will be more likely to engage”* (Reflective journal, March 2019).

This would overcome the challenges mentioned by parents related to a lack of resources or ideas as to how to remain fit. Supportive evidence of these recommendations is found in Photograph 4.1.





**Photograph 4.1:** Recommendation from participants on informing parents of the benefits of “physical fitness”

#### 4.2.1.2 Sub-theme 1.2: Guidance to enhance children's physical fitness levels at home

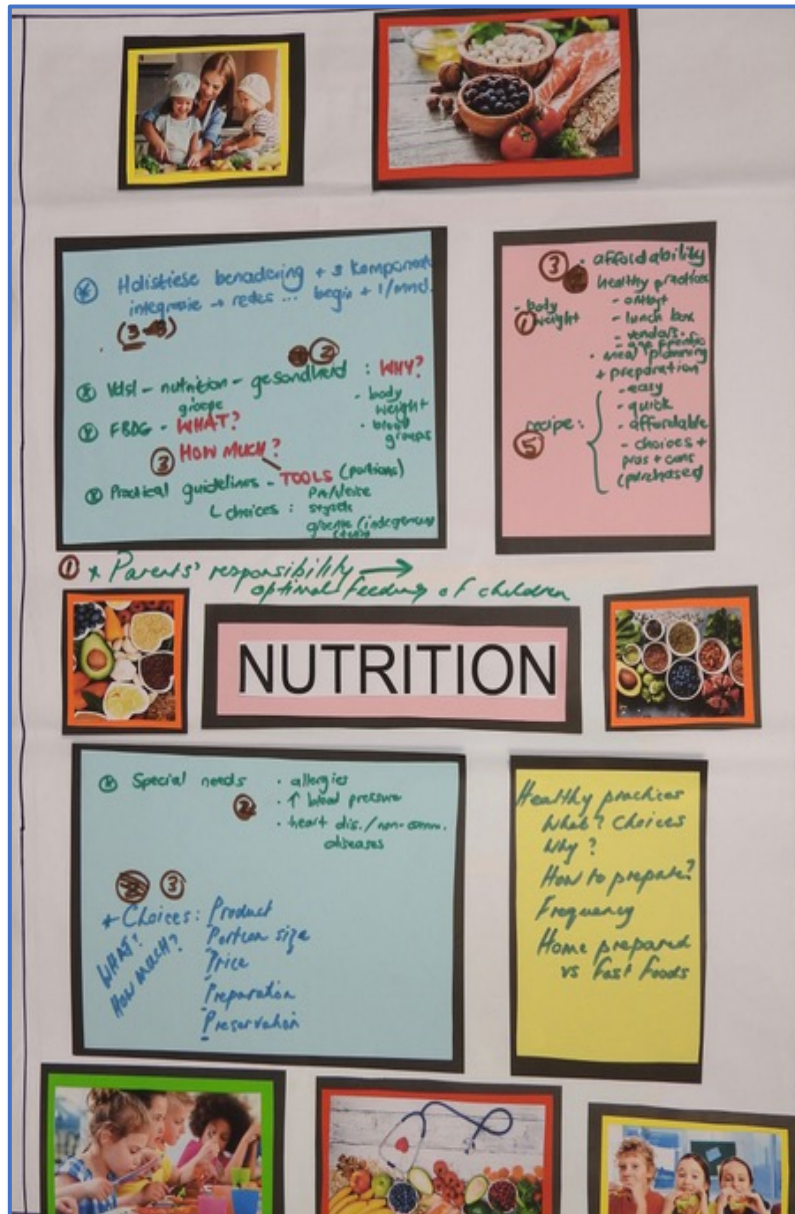
Participants indicated that the parents also wanted to improve their children’s eating habits.. In particular, parents sought a better understanding of the benefits of healthy eating, and the reasons behind maintaining a healthy diet (PRA-1, R-3: March 2019). This was explained by one participant as follows: *“Participants wanted to understand the ‘why’ and ‘how’ of healthy eating and nutrition... the specific benefits or drawbacks of certain dietary habits”* (PRA-1, R-3: March 2019).

Furthermore, parents seemed to have a limited understanding as to why their children should eat specific foods, and what foods they should be eating for optimal health (PRA-1, R-3: March 2019). In my reflective journal I captured what one participant said about the parent participants: *“They understand that some foods are good and some are bad, but they are confused about how much they should have- the quantities”* (Reflective journal, March 2019). Therefore, participants deemed it necessary to explain the concept of portion sizes using the “Food-based dietary guidelines” as an example (PRA-2, R-6: April 2019). This would give parents insight into which types and how much of certain foods they should be eating. One participant explained the benefits of these guidelines as follows: *“We want to give them scientifically-backed information on nutrition and that’s why we thought we’d introduce the Food-based dietary guidelines, which will give the parents accurate information on how much they should be eating ... and what”* (PRA-1, R-6: March 2019).

Equally important, participants noted that parents expressed the need for more practical guidelines on nutrition. This would be in response to parents requesting guidance on what to put in lunchboxes, or how to prepare healthy meals (PRA 1, R-3: March 2019). Participants suggested informing the parents of how to make choices with regard to: *“product, portion size, price, preparation, and preservation”* (PRA-1, R-6: March 2019), especially because many parents requested information on how to make their food last longer and how to create a healthy diet on a budget. Portion sizes also seemed to be a frequent topic of discussion among parents (PRA-1, R-3: March 2019). One participant explained that parents needed a better understanding of this concept with regard to eating in moderation: *“There seemed to be confusion regarding the exact quantities that are acceptable”* (PRA-1, R-6: March 2019).

Lastly, the participants suggested sending recipes to the parents that were *“easy, quick and affordable”* (PRA-1, R-2: March 2019) in response to their requests for more practical ideas for meal planning (PRA-1, R-3: March 2019). I captured my thoughts on sending out recipes to parents in my reflective journal as follows: *“I think if we send recipes to the parents every other week this would really benefit them, we can send pictures or maybe a PDF document, something that is easy to follow and has cheaper ingredients”* (Reflective journal, March 2019).

Evidence for participant’s recommendations on sending recipes to participants is shown in Photograph 4.2.



**Photograph 4.2:** Recommendation from participants for healthy eating habits

#### 4.2.1.3 Sub-theme 1.3: Guidance to improve children's psychological well-being at home

In terms of psychosocial well-being, parents requested support for gaining a better understanding of how to support their children's well-being more optimally at home (PRA-1, R-3: March 2019). One participant noted this need as follows: *"I was struck by how concerned the parent participants were about whether or not they really know their children"* (PRA-1, R-3: March 2019). In this regard, another participant suggested guiding parents on strategies for enhancing and improving communication with their children. This participant expressed her thoughts as follows: *"There were big questions surrounding communication ... parents want to*

*know which strategies work best and how to get their child to open up to them*” (PRA-1, R-2: March 2019).

Participants suggested that parents should be given resources on how to help their children create a positive future for themselves (PRA-2, R-2: April 2019). One female participant indicated the importance of informing parents about the vast number of resources available which could help them support their children now and in the future (PRA-2, R-2: April 2019). These resources would include information related to *“finances, school work, and scholarships”* (PRA-1, R-2: March 2019). Parents in particular requested guidance on how to support their child’s passion and put aside finances for their future (PRA-1, R-3: March 2019).

Another major concern of parents regarding their children was how to recognise if they were experiencing challenges or stress (PRA-1, R-3: March 2019). Bullying at school was mentioned often, along with other school-related issues such as peer pressure. Parents indicated a desire to support their children but wanted information on how they could do this, especially when communication was a barrier (PRA-1, R-3: March 2019). One participant expressed this as follows: *“Parents seemed to want assurance that their children were okay, fearing that their children were not opening up to them if there was a problem”* (PRA-1, R-3: March 2019). Participants suggested informing parents about how they could recognise *“bullying, depression or misbehaviour”* (PRA-1, R-2: March 2019) in a child in order to assist them with understanding their child’s distress signals. In addition, participants mentioned giving parents ideas on how to involve their children in health or physical activity practices which would, in turn, improve their overall psychosocial well-being (PRA-2, R-2: April 2019). During the presentation with the learners at both schools, I asked questions related to health and physical activity such as: *“Who ate an apple this weekend?”*, *“Who ate a chocolate this weekend?”*, *“Who went for a walk outside this weekend?”* and *“Who played video games this weekend?”* (Reflective journal, June 2019). A large number of the learners said they ate an apple over the weekend, but not many said they went for a walk. More said that they *“played video games”* or *“slept”* (Reflective journal, June 2019). Thus, there appeared to be a need to encourage parents to involve their children in healthy eating and physical fitness practices.

Finally, parents had multiple concerns regarding their children and how to understand their needs based on their ages and level of development (PRA-1, R-3: March 2019). Reaching developmental milestones was also a topic of concern, parents requested clarity as to how they could differentiate between normal and abnormal behaviour in terms of development (PRA-1,

R-3: March 2019). In terms of responding to these questions, participants suggested that under the theme of normative development, the various social, emotional, developmental and psychosexual milestones be discussed (PRA-2, R-2: April 2019). I captured in my research journal the ideas of one participant as follows: “Parents want to know if their children are developing age appropriately, they want to make sure everything is okay, or on track. Having guidelines to follow regarding milestones would be hugely beneficial” (Reflective journal, March 2019). Evidence of the recommendations from participants on parents’ needs for psychosocial well-being guidance is shown in Photograph 4.3.



**Photograph 4.3:** Recommendation from psychosocial well-being researchers on parents’ needs for guidance

#### 4.2.2 Theme 2: Suggested modes of delivery to implement a parent guidance intervention

This theme captures the suggested modes of delivery to implement a parent guidance intervention. Table 4.2 presents a summary of the inclusion and exclusion criteria I relied on to identify the three sub-themes in Theme 2.

**Table 4.2:** Inclusion and exclusion criteria for Theme 2

Theme/Sub-theme	Inclusion Criteria	Exclusion Criteria
<b>Theme 2:</b> Suggested modes of delivery to implement a parent guidance intervention	All data referring to suggested modes of delivery to implement a parent guidance intervention.	Any data referring to the content of the parent guidance intervention or data not associated with a specific mode of delivery.
<b>Sub-theme 2.1:</b> Information Letter	Data referring to the utilisation of information letters as a mode of delivery for a parent guidance intervention.	All data referring to modes of delivery that did not relate to information letters as well as data referring to the content of the letter.
<b>Sub-theme 2.2:</b> School-based parent meetings	Data referring to the utilisation of parent meetings as a mode of delivery for a parent guidance intervention.	All data referring to modes of delivery that did not relate to parent meetings.
<b>Sub-theme 2.3:</b> Mobile devices	Data referring to the utilisation of mobile devices as a mode of delivery for a parent guidance intervention.	All data referring to modes of delivery that did not relate to mobile devices.

#### 4.2.2.1 Sub-theme 2.1: Information letter

Participants suggested that an information letter (Appendix A) be sent out to the parents before the implementation of the parent guidance intervention. This letter would be the “*starting point of communication*” (PRA-1, R-4: March 2019) with the parents. The letter would be handed out at a meeting with the learners at the two schools. It would serve to initiate contact with the parents and ask them to respond with via WhatsApp if they would be willing to participate (PRA-2, R-1: April 2019).

The information letter would be accompanied by some form of incentive which would encourage the learners to ask their parents to join the parent guidance intervention. I expressed my thoughts about the incentive in my research journal as follows: “*Each of the children are getting a bag which is sponsored by Multotech as well as a key ring a fruit stick – I’m sure*

*these will be great incentives which could remind them to speak about the intervention with their parents! And then of course the letter was also packed in the bag- it is going to explain what is happening in the parent guidance intervention and it will ask parents to send a message to my number so that I can create a database and form the WhatsApp groups”* (Reflective journal, March 2019).

The information letter was handed out to the learners at School A and School B in Pretoria. To encourage the children to ask their parents to take part in the project, it was necessary to create excitement and garner enthusiasm. One participant reiterated this by saying: *“Think of some creative ways to encourage the children to ask their parents to join the project, this is the starting point for communication to encourage the parents to join”* (PRA-1, R-1: March 2019).

The photographs below show evidence of the presentation to the learners at School A (Photograph 4.4) and School B (Photograph 4.5)



**Photograph 4.4:** Handing out the information letter for the parent guidance intervention at School A



**Photograph 4.5:** Handing out the information letter for the parent guidance intervention at School B

The meeting aimed to excite the learners and encourage them to give the information letter to their parents and ask them to participate in the implementation phase of the parent guidance intervention. One learner from School A stated: *“My mom never reads these letters”* (Reflective journal, June 2019). When the learners were asked to raise their hands if their parents use cell phones, all responded positively. The learners were each given a bag which contained the letter, a key ring and a fruit stick which acted as an incentive to remind the learners to give the letter to their parents. Learners responded to the incentive positively with one learner saying: *“I will give the letter as soon as I get home”* and *“I hope my mom signs up”* (Reflective journal, June 2019). Evidence of the incentive and the handing out of the information letter to the learners is shown in Photograph 4.6.





**Photograph 4.6:** Handing the learners at School A Multotech bags containing the keyring, fruit stick, and information letter

#### **4.2.2.2 Sub-theme 2.2: School-based parent meetings**

The second mode of delivery discussed by participants was the potential of parent meetings. Participant discussed the potential challenges of parent meetings including that many parents do not have time to attend meetings and that they have prior commitments related to work or their families. One participant expressed this by saying: *“There is a lack of interest in these kinds of meetings because parents are busy and conflicting schedules are a common reason for non-attendance”* (PRA-1, R1: March 2019).

Moreover, it was also noted that the principal at each school had already forewarned that parent participation was often poor. One participant explained her experience with this as: *“The headmaster warned me that very few parents attend after-school meetings or workshops unless the learner’s reports are to be collected at the same time”* (PRA-1, R-3: March 2019). It was thus evident that the likelihood of parents attending a meeting related to parent guidance at the school was low.

Participants agreed with the challenges of parent meetings but still noted the possible benefits of using this mode of delivery at some point during the intervention if possible. One participant indicated this by saying: *“Some parents said they preferred face-face meetings, and perhaps we could integrate this later on, but we know there are many challenges with this in terms of logistics and getting parents to attend”* (PRA-1, R-4: March 2019). The mentioned challenges

led to participants deciding that parent meetings would not be a feasible mode of delivery for parent guidance interventions. As a final remark, one participant discussed the need for an alternative mode of delivery: *“It would be a lot of information to speak about at each meeting, a lot of time, and in this day and age time is costly and parents would prefer something quick and easy”* (PRA1- R1: March 2019).

#### **4.2.2.3 Sub-theme 2.3: Mobile devices**

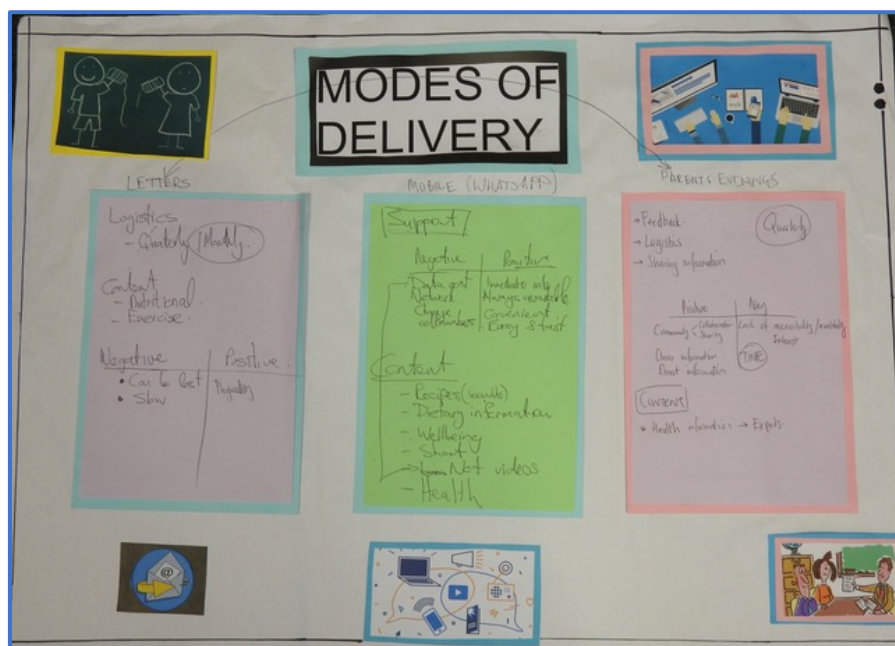
In terms of mobile communication, participants suggested the potential of SMS’s (Short Message Service) to overcome the barriers posed by the information letter that would be sent out to parents before the start of the intervention. One participant said: *“SMS confirmation describing the parent guidance intervention can be sent out before the information letter gets sent home”* (PRA-1, R-1: March 2019). This, according to the participants, would serve as a reminder for the parents to respond to the information letter and participate in the parent guidance intervention. One participant explained how the nudge theory could be used to gently remind parents of various topics throughout the intervention. The participant elaborated by saying: *“So I’m going to be talking about nudges...that is basically a gentle prod in order to attract attention to alter behaviour. It alters people’s behaviour in a predictable way without forbidding any options or significantly changing their economic incentives”* (PRA-1, R-4: March 2019).

The preferences of mobile phones as a mode of delivery for the intervention was further reinforced by some of the children’s responses during the presentations at both schools. In my reflective journal, I stated the following: *“When the learners were asked to raise their hands if their parents used cell phones, all responded positively”* (Reflective journal, June 2019). I also noted the following response from one learner who said his mom would be interested in the intervention; *“My mom is always on her phone, she will join this club”* (Reflective journal, June 2019).

A major concern surrounding the use of mobile phones for the delivery of a parent guidance intervention was the cost of data and possible lack of network coverage in their home areas. However, participants noted that mobile phones would be the cheapest option for intervention delivery and that WhatsApp used limited data. I captured this expression in my reflective journal: *“WhatsApp is fast and efficient and it only really uses data if you send pictures and videos. So we shouldn’t send any videos to the parents but perhaps we could send pictures of recipes and such a few times a month”* (Reflective journal, March 2019).

In terms of using WhatsApp messenger on a mobile device for the delivery of the parent guidance intervention, participants noted that this would allow parents to access the information most quickly and cost-effectively. Participants stated that parents would gain “*immediate access to the information*” (PRA-1, R-4: March 2019) and that it would possibly be the most “*convenient*” (PRA-1, R-4: March 2019) delivery method for parents. One participant said that “*WhatsApp is always available and easy to use, most- probably all parents have WhatsApp on their phones*” (PRA-1, R-4: March 2019).

The parent participants also noted that mobile phones allow a wide range of people to be reached in a short amount of time. Potential challenges of using WhatsApp as a mode of delivery included the “*costs of data and poor network coverage*” (PRA-1, R-4: March 2019). One participant noted that “*videos use more data*” (PRA-1, R-4: March 2019) and thus it was decided no videos would be sent to the parents as part of the parent guidance intervention. Evidence for support of mobile devices from participants is shown in Photograph 4.7.



**Photograph 4.7:** Recommendations from participants on the use of mobile devices for the parent guidance intervention

### 4.2.3 Theme 3: Using mobile devices as a mode of delivery

This theme captures the participants’ recommendations for using mobile devices as a mode of delivery for the parent guidance intervention. Table 4.3 gives an overview of the inclusion and exclusion criteria I used to identify the three sub-themes related to the utilisation of mobile

devices, more specifically with regard to the logistics of WhatsApp, the structure of the messages, and introducing the messages to parents.

**Table 4.3:** Inclusion and exclusion criteria for Theme 3

Theme/Sub-theme	Inclusion Criteria	Exclusion Criteria
<b>Theme 3:</b> Using mobile devices as a mode of delivery	All data referring to researchers' recommendations on the utilisation of mobile devices as a mode of delivery for a parent guidance intervention.	Any data referring to mobile devices that did not specifically relate to their use as a mode of delivery in a parent guidance intervention
<b>Sub-theme 3.1:</b> Logistics of WhatsApp messenger	Data referring to the logistics of WhatsApp messenger in terms of its use as a mode of delivery in a parent guidance intervention,.	All data referring to the structure or content of the WhatsApp messages.
<b>Sub-theme 3.2:</b> Structure of messages	Data referring to the structure of the WhatsApp messages to be sent to parents as part of a parent guidance intervention.	All data referring to the logistics of WhatsApp messenger..
<b>Sub-theme 3.3:</b> Introducing the WhatsApp messages to parents	Data referring to introducing the WhatsApp messages to parents at the start of the parent guidance intervention.	All data referring to other aspects of WhatsApp messenger not related to the introductory WhatsApp message.

#### 4.2.3.1 Sub-theme 3.1: Logistics of WhatsApp messenger

Participants recommended that the WhatsApp messenger application can be used to deliver information through mobile devices. WhatsApp messenger is a popular communication application that is cost-effective and easy to use. I captured the following in my reflective journal: “*WhatsApp is reliable and very easy to use, it allows users to create groups for sending out information and although it does require data it is still cost-effective and easy to navigate compared to other mobile applications*” (Reflective journal, March 2019).

In terms of managing and creating WhatsApp groups, participants expressed the importance of segmenting the parent participants into different groups to ensure relevant information was sent to each group and to avoid having too many participants on one group. One participant explained this by saying: *“We know in WhatsApp groups, the maximum amount of participants per group is 256. We need to be aware of the of this and create two or three groups per school... maybe one for foundation phase parents and one for senior parents”* (PRA-1, R-1: March 2019).

Furthermore, to prevent unnecessary comments or posts from participants on the WhatsApp groups, it was also suggested that the settings be changed so that only the admin of the group could send messages. This would avoid common issues associated with WhatsApp groups such as forwarding of spam messages, posting of adverts, and the potential of some participants sending unnecessary replies or comments that may upset other participants. I captured my thoughts on this in my reflective journal: *“I suggested that only the admin be able to send messages and the researchers agreed with this- This will prevent parents from sending messages late at night or early in the morning and disturbing other participants”* (Reflective journal, March 2019).

In addition, parents would be sent a list of rules for WhatsApp groups which explained the conditions of being part of the group, as well as reiterating that they can leave the group at any time should they wish to do so. I captured this information in my reflective journal as follows; *“A list of rules would go after the participants before the intervention commences in order to ensure that they are safe and comfortable and that they know that they can leave the group at any time”* (Reflective journal, March 2019). Finally, participants also noted the importance of ensuring that messages were sent out on schedule and on time.

#### **4.2.3.2 Sub-theme 3.2: Structure of messages**

Once the mode of delivery (WhatsApp) for the parent guidance intervention had been established, it was necessary to determine the number of messages to be sent to the parents throughout the implementation phase of the intervention. Participants suggested that to prevent parents from being overwhelmed with information, the message should be short and easy to read. One participant discussed the number of messages that would be sent by stating: *“Three messages a week, for a period of 26 weeks”* (PRA-1, R-1: March 2019). This would allow an adequate amount of time for the trial phase of the implementation of the parent guidance intervention.

In addition, sending too many messages a week may discourage parents from reading them. I captured in my reflective journal this information from one participant “*We don’t want to overwhelm the parents with messages and information, short and sweet will be better, so I think three messages a week will be enough*” (Reflective journal, March 2019). Parents perceive that regular contact via mobile phones would be most efficient to sustain their interest in the parent guidance programme.

Each WhatsApp message would follow a similar format. One participant suggested the messages be “*short and sweet*” (PRA-1, R-1: March 2019), which would encourage the parents to open and read the messages. Longer messages may “*discourage parents from reading the message because it’s too much effort.*” (PRA-1, R-1: March 2019), as one participant explained. Potential language barriers of the parents were also discussed, with one participant highlighting the importance of using simple language in the messages “*Given language barriers the messages should be short and simple*” (PRA-1, R-3: March 2019)

Participants also determined that the messages should follow a similar structure in terms of which topic would be spoken about on which day of the week. One participant suggested that nutrition be spoken about on a Monday, psychosocial well-being on a Wednesday, and physical fitness on a Friday (PRA-2, R-2: April 2019). From my reflective journal I note the following: “*Monday should be the day for nutrition-related messages because after a weekend most parents want to start fresh and it’s a good way to set the tone for the rest of the week*” (Reflective journal, April 2019).



**Photograph 4.8:** Example of the use of emoticons in WhatsApp messages sent to parents (19 October, 2019)

In addition, participants made mention of the importance of reader friendliness, easy to read content for the parents. As such, the vast majority of messages were written in casual, informal language and included light-hearted jokes and emoticons to attract parent attention. An example of one such message is shown in Photograph 4.8. Most messages also made use of lists and bullet points to highlight ideas and tips for parents in a short and easily accessible way. See Appendix I for examples.

#### 4.2.3.3 Sub-theme 3.3: Introducing the WhatsApp messages to parents

With regard to the content of the messages, parents asked that the information presented to them be clear and practical. Parents seemed to show a preference for information that included guidelines or explanations of how to do certain things. One participant explained this as follows: *“Messages should be short and simple, with pictures to support written information. There should also be practical, step by step guidelines”* (PRA-1, R-3: March 2019).

An example of a message giving parents ideas for breakfast that was accompanied by a picture is shown in Photograph 4.9.



**Photograph 4.9:** Example of the content of message providing guidance on nutrition-related practices

Participants agreed that an introductory message would be sent to all participants upon them joining the WhatsApp groups (PRA-2, R-2: April 2019). This message would inform participants of the purpose of the project, the timeframe, and thank them for taking part. The first message sent to parents written by one participant read as follows: *“Dear parents. We are very excited about our parent guidance programme that you form part of. As explained in the letter you received, we will be sending you WhatsApp messages two or three times per week for the next 6 months, focusing on healthy eating, physical fitness and the emotional wellness of your child. We believe that all three these components are important for your child to be happy. Of course, you are at the core of your child's happiness and well-being. With this programme, we hope to support you in your parenting task, which may sometimes seem to be overwhelming. Thank you again for being part of this group. This already tells us that you are a caring parent that wants the best for your child. Warm wishes, University of Pretoria parent guidance team.”* (Appendix I, WhatsApp message, 8<sup>th</sup> April 2019, page 175).



#### 4.2.4 Theme 4: Content of the WhatsApp messages to be included as part of the parent guidance intervention

Theme 4 describes the content of the WhatsApp messages that were sent as part of the parent guidance intervention. Table 4.4 provides a summary of the inclusion and exclusion criteria I used to identify the three sub-themes, these being: WhatsApp messages to support healthy eating habits at home; WhatsApp messages to support physical fitness at home; and WhatsApp messages to support psychosocial well-being at home.

**Table 4.4:** Inclusion and exclusion criteria for Theme 4

Theme/Sub-theme	Inclusion Criteria	Exclusion Criteria
<b>Theme 4:</b> Content of the WhatsApp messages for the parent guidance intervention	All data referring to the content of the messages for the parent guidance intervention that would be delivered through WhatsApp messenger on mobile devices.	Any data referring broadly to specific areas that parents requested guidance on, or data related to the modes of delivery of a parent guidance intervention.
<b>Sub-theme 4.1:</b> WhatsApp messages to support physical fitness at home	Data referring to the content of the WhatsApp messages in support of physical fitness at home.	All data referring to physical fitness that was not directly linked to the content of the physical fitness-related messages.
<b>Sub-theme 4.2:</b> WhatsApp messages to support healthy eating habits at home	Data referring to the content to be included in the WhatsApp messages in support of healthy eating habits at home.	All data referring to healthy eating habits that was not directly associated with the content of the messages that were sent to the parents as part of the guidance intervention.
<b>Sub-theme 4.3:</b> WhatsApp messages to support psychosocial well-being at home	Data referring to the content of the WhatsApp messages in support of psychosocial well-being at home.	All data referring to psychosocial well-being-related guidance requested by the parents in general, and not directly associated with the content that was included in the WhatsApp messages.

#### 4.2.4.1 Sub-theme 4.1: WhatsApp messages to support physical fitness at home

Messages related to physical fitness were sent out to parents each Friday under the heading “*Fitness Friday*” with the aim being that parents make use of ideas presented with their families over the weekend (PRA-2, R-6: April 2019). It was evident from parent recommendations that the majority of parents did not hold adequate knowledge of the benefits of exercise and the necessity of maintaining sufficient levels of physical activity in one’s daily routine (PRA-1, R-3: March 2019). Thus, participants initiated by explaining the link between physical fitness and healthy functioning. The message explained this link as follows: “*Did you know that being fit can help your family to feel more confident and competent? Being fit affects your thinking and the speed and ease with which you learn*” (Appendix I, WhatsApp message, 9<sup>th</sup> August 2019, page 180).

In response to parents request for guidance on different types of exercise and ideas for family-friendly workouts, participants compiled a number of easy-to-follow exercise routines which could be done at home without the use of any equipment (PRA-1, R-3: March 2019). This combated the barrier that many parents felt prevented them from partaking in regular exercise, this being lack of access to gyms and gym equipment. Along with step-by-step guides for family-friendly exercises, participants also suggested sending photographs of the various movements in order to give parents a visual representation.

Also related to guidance on different types of exercise, participants gave parents ideas for alternatives forms of exercise taking place in various areas in South Africa. One message gave a list of activities including to participate in: “*park run, colour run, hula hooping, and outdoor gym*” (Appendix I, WhatsApp message, 31<sup>st</sup> January 2020, page 181). This might encourage parents to participate in physical activities as a number of them stressed that they could not find the motivation to engage in more “formal” exercise activities such as running or weightlifting.

To encourage parents to get their children involved in exercise routines, participants provided a number of examples of fun activities which children would enjoy (PRA-1, R-5: March 2019). As many parents said that trying to get their children to exercise with them was difficult, participants ensured that parents were given enough guidance on motivating their children to take part (PRA-1, R-3: March 2019). One message gave examples of child-friendly exercises which were animal themed. The message included easy-to-follow instructions for each exercise, with one particular exercise being explained as follows: “*Bear Walk: Place your*

*hands and feet on the floor. Your hips and butt should be in the air, higher than your head. On all fours take two steps forward and two steps back, then repeat*” (Appendix I, WhatsApp message, 9<sup>th</sup> January 2020, page 183).

The majority of messages related to physical fitness included instructions and examples that parents could easily follow (PRA-1, R-5: March 2019). This is because a common barrier associated with engaging in physical activity that the parents mentioned often was not having enough motivation to exercise. By providing parents with exciting new techniques and visual guides, the participants hoped to attract their attention and influence them to try out new routines.

#### **4.2.4.2 Sub-theme 4.2: WhatsApp messages to support healthy eating habits at home**

Once the project had been implemented, participants started compiling messages to send to parents each week. Messages that focused on healthy eating at home were sent out every Monday under the heading *“Munching Monday”* (PRA-2, R-2: April 2019). The content of these messages was created based on recommendations and requests by parents. One message provided guidance linked to parents’ requests for support in differentiating between healthy and unhealthy food. The message explained that parents should avoid calling foods “good” or “bad” and rather label them as follows: *“Label foods as “go,” “slow,” or “whoa” Children can “go” foods like whole grains and fruit they should have every day and “slow down” with less healthy foods like waffles*” (Appendix I, WhatsApp message, 16<sup>th</sup> September 2019, page 175).

Other messages included content based on different food groups, an explanation of the food pyramid and the health benefits of a healthy diet. Messages provided easy to read information for parents. One message explained portion sizes in terms of the food plate tool: *“According to the “my food plate” tool, about half of your plate (at every meal) should be made up of vegetables and fruit, a quarter of your plate should be carbohydrates, grains and starch, and the remaining quarter should be meat or meat alternatives (protein)”* (Appendix I, WhatsApp message, 1<sup>st</sup> August 2019, page 176)

In response to parents’ need for guidance on speciality diets, participants suggested informing parents of the dangers of cutting out food groups due to allergies or other health conditions. One message read: *“Cutting out problem foods can create other problems, like poor nutrition. Talk to your child’s allergy doctor before taking healthy foods out of her diet”* (Appendix I, WhatsApp message, 28<sup>th</sup> October 2019, page 176). Another message on healthy eating habits

provided information on managing allergies, another topic that parents had requested support on with regard to ensuring optimal health of their families. The message expressed: *“Managing a child’s food allergy sounds simple: Just avoid the trigger food. As any parent knows, that can be a challenge. Knowing how to prevent and handle a severe reaction can help you both feel more confident. Follow these tips to help manage your child’s food allergy”* (Appendix I, WhatsApp message, 28<sup>th</sup> October 2019, page 176).

Practical guidelines such as recipes, methods of food preservation, and tips for making lunchboxes were also requested by parents. Participants suggested recipes use ingredients that were affordable and included pictures that were easy to follow by parents (PRA-2, R-6: April 2019). One message read: *“Healthy eating doesn’t mean depriving yourself. We all enjoy a treat, but it is important to make good choices and to keep your portions small. See the photos below for easy and affordable snack recipes tried and tested by South Africans”* (Appendix I, WhatsApp message, 9<sup>th</sup> December 2019, page 177).

In addition, participants recommended the inclusion of several pictures with easy to read instructions. Another message provided ideas for lunchboxes with a number of examples including the following: *“lean proteins such as tuna, boiled eggs, beef, chicken or even leftover mince or stew can make for great sandwich fillers”* (Appendix I, WhatsApp message, 7<sup>th</sup> October 2019, page 178). Although participants suggested that picture content be limited due to data consumption, sending pictures of recipes and lunchbox ideas was perceived as beneficial for parents who requested more thorough practical guidelines (PRA 2, R-6: April 2019).

Finally, some parents also requested ideas for preparing food and making their monthly costs for food shopping less expensive. Participants provided guidelines for parents in terms of saving money and making food last longer (PRA-2, R-6: April 2019). This was described in one message as follows: *“Plan your meal for the week before you shop and then buy what’s on the menu. Start with planning for 3 or 4 days if all week seems too much”* (Appendix I, WhatsApp message, 23<sup>rd</sup> September 2019, page 179). In terms of preparing food, participants noted the importance of giving examples that were easy to follow. When discussing ideas for meal preparation, one message gave the following idea for using baked beans, which are easily accessible and affordable: *“Baked beans are a quick and easy, affordable meal if you do not have time to cook. You can eat them as is, with rice or on bread”* (Appendix I, WhatsApp message, 23<sup>rd</sup> September 2019, page 180).

In summary, participants specialising in nutrition and healthy eating habits ensured that the information included answered the requests made by parents and provided guidance for frequently requested topics. The messages often included examples of less expensive and healthy food products that could be purchased locally. In addition, recipes and food preparation techniques were sent out at least once a month as many parents requested these forms of practical guidelines.

#### **4.2.4.3 Sub-theme 4.3: WhatsApp messages to support psychosocial well-being at home**

The outstanding request by parents in terms of guidance for psychosocial well-being was related to connecting with their children and supporting them with current and future goals (PRA-1, R-3: March 2019). Participants aimed to empower parents by giving them guidance on childcare without making them feel incompetent or discouraged. Participants suggested using the term “*Wellness Wednesday*” to introduce all messages related to psychosocial well-being, which would be sent to parents on Wednesdays (PRA-2, R-1: April 2019). To do this effectively, messages in the psychosocial well-being category relayed a sense of empathy and understanding for parents. One introductory message, for example, read “*The fact that you joined this group demonstrates how much you care for your child. As a parent, you are busy moulding your child into the person he/she is becoming. You are central in your child's life and nobody can ever take your place*” (Appendix I, WhatsApp message, 10<sup>th</sup> July 2019, page 184). Messages such as these aimed to remind parents of their important role in their children’s lives and encourage them to keep participating in the intervention.

In terms of guidance to support their children, participants outlined practical ideas for parents to help build them a better future for their children. One message gave ideas for goal setting: “*With this in mind, teach your children the necessity of goal setting and how to actually go about it by using the following tips*” (Appendix I, WhatsApp message, 23<sup>rd</sup> October 2019, page 186) and another gave ideas for motivating a child to do better in school: “*Create a small workspace for your child where she or he can comfortably do homework or study without any disturbance*” (Appendix I, WhatsApp message, 18<sup>th</sup> September 2019, page 186).

Recognising distress signals in a child was another component of psychosocial well-being that parents requested support for (PRA-1, R-3: March 2019). Many parents showed concern toward not knowing how to respond if their child was being bullied. Thus, participants offered practical advice and tips for parents to support a bullied child. One of these tips read: “*Make an appointment to meet with your child's teacher and, if you need to, ask to talk with the*

*principal*” (Appendix I, WhatsApp message, 25<sup>th</sup> September 2019, page 187). As a number of parents stated that they found it difficult to communicate with their children (PRA-1, R-3: March 2019), participants also gave guidance on how to notice external signs of bullying and anxiety in children. In addition, participants shared strategies on how to help an anxious child, with one tip being: *“Encourage your child to notice what makes them anxious. Talking it through can help but your child could also try keeping a diary or a ‘worry book’”* (Appendix I, WhatsApp message, 9<sup>th</sup> October 2019, page 188). Furthermore, participants noted that not only children become stressed and anxious and that parents need tips for coping with stress too. As such some messages provided ideas for relaxation and managing stressful situations at home (Appendix I, WhatsApp message, 9<sup>th</sup> October 2019, page 189).

Some parents expressed that they wanted guidance on ideas for spending quality time with their loved ones (PRA-1, R-1: March 2019). Participants provided practical ideas for parents which they could follow in order to stay connected with their families (PRA-2, R-3: April 2019). One message gave examples of games families could play together, while another linked back to family-friendly fitness ideas and reminded parents of the numerous benefits of exercising as a family (Appendix I, WhatsApp message, 9<sup>th</sup> November 2019, page 190). Another message suggested that parents have daily connect time with their child, the message explained this as follows: *“Do this face-to-face, if possible; but if this isn’t an option, create a routine for doing so in other ways, such as leaving a note in your child’s lunch bag, posting a note by his toothbrush, or writing an encouraging saying on a paper and leave it somewhere in the house”* (Appendix I, WhatsApp message, 4<sup>th</sup> September 2019, page 192).

More pertinent issues that parents requested support on was how to access information on child grants and child maintenance, as well as how to discipline a child effectively (PRA-1, R-3: March 2019). One message explained the process of applying for a child grant while others discussed the process of applying for child maintenance at court (Appendix I, WhatsApp message, 28<sup>th</sup> November 2019, page 194). These messages were constructed using information from relevant government sites in order to ensure parents received accurate information.

In terms of child discipline, participants referred to “positive discipline” and explained the benefits thereof. The message explained this term by stating: *“When children are ‘misbehaving’ they are usually trying to communicate that they have an unmet need, it is important to reassure your children that they will always be loved even they may make mistakes or poor choices”* (Appendix I, WhatsApp message, 21<sup>st</sup> August 2019, page 196). This message

reiterated the idea that parents must recognise the important role they play in their children's lives and ensure that they are always loved and cared for even when they misbehave.

To summarise, the messages on psychosocial well-being provided information for parents who sought guidance on supporting their children. Some practical guidelines were given, such as processes for applying for grants, and in other messages, ideas for family activities were shown. As parents frequently requested that the information they were provided with be accurate and unambiguous, the content was taken from recognised parenting journals and the South African government page.

### **4.3 FINDINGS OF THE STUDY**

In this section, I relate the results of my study to existing literature. I discuss similarities and inconsistencies in terms of the themes that I identified, interpreted against the background of the existing literature I presented in Chapter 2.

#### **4.3.1 Mode of delivery for a parent guidance intervention**

The findings of my study show that in terms of cost-effectiveness, accessibility, and user-friendliness, mobile devices were the preferred mode of delivery by both parent and researcher participants for a parent guidance intervention (Bensley et al., 2011; CDC, 2012; Guilamo-Ramos et al., 2015; Neuenschwander et al., 2013; Wyse et al., 2012). Other modes of delivery, such as parent meetings, emails, and informal letters were also considered. In terms of parent meetings, the main barrier noted by both parents and participants were time constraints. This is consistent with findings by Barlow et al. (2005) who found that on-site parent workshops were less effective due to conflicting schedules of parents. Similarly, Winslow et al. (2009), as well as Kelleher et al. (2017), noted that time constraints were a limiting factor to parent participation in on-site meetings.

The participants in this study of limited scope also perceived that the use of information letters as a potential mode of delivery would not be ideal. Parents discussed that information letters were easily lost and often never reached them. This is consistent with findings by Silk et al. (2008) who found that print-based interventions were less effective than web-based modalities. In addition, participants noted that typing and printing letters would be costly and time-consuming. However, to initially inform parents about the intervention, participants decided that an information letter would be sent to the school detailing the intervention and the purpose thereof.

Web-based approaches to intervention delivery were preferred by both parents and participants in the present study. Similarly, Bensley (2011) found participants preferred web-based interventions as they could view content from the comfort of their own homes without having to make travel arrangements. Parents suggested that frequent access to health-related content that is easy to understand and read would be most beneficial. This is consistent with findings by Jones et al. (2013) and Breitenstein et al. (2014) who both noted a more positive response from participants to online interventions over traditional intervention methods. In this regard, mobile devices would be most suitable as they allow for immediate access to information and reduce the challenges experienced by many parents in terms of access to in-person interventions.

#### **4.3.2 Suitability of mobile devices as a mode of delivery for a parent guidance intervention**

Findings of this study show that parents and participants agree that mobile devices are the most suitable mode of delivery for the development and implementation of a parent guidance intervention in the specific resource-constrained community. Support for use of mobile phones as a mode of delivery has also been described in several other studies (Bensley et al., 2011; Hingle & Patrick, 2016; Neuenschwander et al., 2013; Wyse et al., 2012). Participants highlighted the suitability of mobile phones with reference to their potential for immediate access to information and widespread diffusion of content. Similarly, Hingle and Patrick (2016) noted that mobile phones allowed for consistent engagement from participants making them more efficient than other modes of delivery such as print-based interventions.

Parent participants in the study also highlighted a preference for convenience and affordability in terms of the modes of delivery for the parent guidance intervention. Participants described the suitability of WhatsApp messenger in this regard as it is an inexpensive and easy-to-use application for sending information. The present study also found that WhatsApp groups are most suitable for relaying the content of a guidance intervention via mobile devices. Hemdi and Daley (2017) also described the benefits of WhatsApp groups in delivering psychoeducation intervention to mothers of children with Autism. Similarly, Alanzi (2018) found that WhatsApp groups were suitable for the delivery of content of an intervention aimed at increasing Diabetes Type 2 knowledge. Finally, Muntaner-Mas et al. (2017) also found that WhatsApp groups were perceived as most efficient by participants in a physical fitness intervention.



### **4.3.3 Content of a parent guidance intervention based on parents' needs**

The present study found that an in-depth understanding of parents' needs was beneficial in determining appropriate content for a parent guidance intervention. The content of the intervention could thus be tailored according to parent needs based on their recommendations for guidance. A number of studies have highlighted the benefits of individually-tailored interventions, including Zufferey and Schulz, (2009); Gans et al. (2009); Lambert et al. (2009) and Lustria et al. (2009). These studies also discussed the importance of considering the needs of the participating target group before implementing an intervention.

In terms of nutrition-related content, participants in this study of limited scope found that parents demonstrated a lack of knowledge regarding the importance of maintaining a healthy diet and how this could be achieved. This is consistent with findings from Davis et al. (2013) who noted that individuals in communities often had scarce knowledge about nutrition due to the conflicting and confusing information presented to them by the media and their surrounding community members. Therefore, participants highlighted the importance of including nutrition-related content which was accurate and backed scientifically in terms of the latest research (Dickson-Spillmann & Siegrist, 2011; Miller & Cassady, 2015; Vorster et al., 2013; Zarnowiecki et al., 2012).

Furthermore, participants noted that parents would benefit from receiving practical guidelines related to nutritional practices, such methods of food preparation, recipes with step-by-step instructions, and easy-to-follow ideas for meal planning. Pienaar and Strydom (2012) also found that parents in low-income communities needed clear and concrete information with practical guidelines in order to best assist them to improve their nutritional practices.

Finally, participants noted that parents required guidance on encouraging their children and other family members to make healthier choices and develop healthy eating habits. Comparably, Davis et al. (2013) described the preference for unhealthy foods by individuals, particularly children, in low-income communities despite growing awareness of the health implications thereof. Power et al. (2010), as well as Scaglioni et al. (2011), also found that parents were less motivated to eat healthier foods because their children did not stick to healthy eating routines.

With regard to physical fitness-related content, participants noted a similar trend to parent needs thereof to their needs for nutrition-related guidance. In particular, participants found that

parents held limited knowledge about the importance of physical activity and the reasons behind its necessity. This is consistent with findings by Davis et al. (2013) who noted individuals in low-income areas could seldom explain the benefits of physical activity.

Additionally, the present study found that developing content that would help motivate parents to engage in physical activity, such as informing them of alternative types of exercise and encouraging them to create home gyms, would allow parents to overcome their perceived challenges in this regard. Botha et al. (2013) also discussed motivational barriers to parent engagement in physical activity and found that many parents cited no access to gym or gym equipment as a factor which prevented them from wanting to exercise. Finally, this study also found that parents require guidance in finding ways of encouraging their children to exercise with them despite time and energy constraints. Bois et al. (2005), as well as Beets et al. (2007), also found that parents needed advice on how to involve their children in their fitness routines.

The findings of my study of limited scope show that in terms of guidance on psychosocial well-being, the content of a parent guidance intervention should also include strategies for parents to improve communication with their children, discipline their children effectively when necessary, and strategies for enhancing a child's resilience. Parent guidance interventions which refer to these strategies have been found to produce positive outcomes for both the child and the parent, as shown by Appleton et al. (2016), Bateson et al. (2008), and Vella et al. (2015).

Participants in this study also noted parents require coping mechanisms for dealing with their own stress, which is similar to findings from Cluver et al. (2018) who found that parent stress was a common barrier to optimal family functioning. Furthermore, the present study found that providing parents with resources which could assist them in better supporting their family, would improve their confidence and self-efficacy. Wilder (2017) confirmed that parents in low-income communities were often less involved in their children's education as they perceived themselves as incompetent. Therefore, if parents are provided with resources on ways in which they can support their children and build a better future for them, the likelihood that they involve themselves in their children's overall well-being will increase.

*\*Special note of the impact of the Covid19 pandemic on the content study: On 15<sup>th</sup> March 2020 the South African government declared a National State of Disaster in response to the Covid19 pandemic and subsequently the country was put into lockdown. This led me to*

*changing the content of the messages of the parent guidance intervention to offer parents advice and relevant information on keeping safe and well during the pandemic. This provides further evidence of the suitability of mobile devices as a mode of delivery as the researchers were able to adapt the content of their messages and provide parents with immediate information relevant to the current state of the country. Some examples of the content of the messages sent out during the pandemic include: “Tips on how to relieve your child’s anxiety about the Covid19 pandemic” (Appendix I, WhatsApp message, 11<sup>th</sup> May 2020, page 197); “Which foods to eat for strengthening your immune system” (Appendix I, WhatsApp message, 10<sup>th</sup> March 2020, page 198); “Tips to make quarantine life easier” (Appendix I, WhatsApp message, 7<sup>th</sup> April 2020, page 201); and “Ways to keep movement a part of your daily routine during lockdown (Appendix I, WhatsApp message, 6<sup>th</sup> May 2020 page 202)”. I believe the continuation of the intervention throughout the initial stages of the pandemic was beneficial for parents as they had access to up-to-date and relevant information about the health implications of Covid19 from the researchers.*

#### **4.4 CONCLUSION**

In this chapter, I described the results of my study in terms of the themes and associated sub-themes that I identified following thematic inductive analysis. I then presented the findings in the existing body of knowledge on these topics and highlighting similarities.

In the following chapter, I draw conclusions by addressing the research questions which were formulated in Chapter 1, based on the research findings discussed in Chapter 4. I reflect on potential challenges and limitations I faced, describe the contributions of my study, and make recommendations for training, practice and future research.

## CHAPTER 5- CONCLUSIONS AND RECOMMENDATIONS

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### 5.1 INTRODUCTION

This chapter concludes this study of limited scope by addressing the research questions outlined in Chapter 1, and in relation to my conceptual framework. In addition, Chapter 5 explores the potential contributions of the study and reflect upon the limitations and challenges I encountered. I conclude this chapter with recommendations for training specifically for educational psychologists, and then provide recommendations for future practice and research.

### 5.2 CONCLUSIONS

In this section, I discuss the conclusions based on the findings of this study by addressing the research questions formulated in Chapter 1. I first discuss the secondary research questions that guided my study, and then the primary question which guided the overall study.

#### 5.2.1 Secondary research question 1

*Which recommendations by parents and university researchers might inform the development and implementation of a parent guidance intervention through mobile devices?*

Parents and university researchers in the present study indicated that mobile devices are an affordable, convenient and effective mode of delivery for a parent guidance intervention. In terms of content, the recommendations by parents led to the creation of three main topics for the parent guidance intervention, namely, supporting the healthy eating, physical fitness, and psychosocial well-being of children at home. Parents recommended that messages be sent regularly to maintain interest in the intervention. They perceived that regular contact via mobile devices would enhance health engagement.

University researchers recommended the use of WhatsApp groups on mobile devices for effective delivery of intervention information. Researchers suggested that four WhatsApp groups be created, segmented in terms of the ages of the parents' children and the schools the children attend. In addition, researchers recommended three messages be sent per week for a period of 26 weeks. They also suggested the structure of the messages follow similar, easy-to-read formats and utilise casual and informal language. Use of emoticons was also encouraged.

Finally, both parents and researchers stated preference for short messages that were typed clearly and easy to understand. Researchers suggested the limited use of photos to prevent excess data usage by parents, and that no videos be sent. However, it was recommended that photos accompany content which related to practical guidelines such as recipes, workout routines, and food preparation techniques.

## **5.2.2 Secondary research question 2**

### ***What are parents' perceptions on the development of a parent guidance intervention through mobile devices?***

The parents in the present study discussed the need for guidance on healthy eating, physical fitness, and psychosocial well-being related content. In terms of healthy eating, parents required support in terms of developing and sustaining healthy eating practices, especially with regard to understanding the benefits of healthy eating. Parents requested that the nutrition-related content of the parent guidance intervention offer practical guidelines for food preparation and ideas for recipes along with step-by-step instructions and picture tutorials. In addition, parents felt that they faced certain barriers in terms of following a healthy eating plan, including lack of motivation and time, limited access to affordable food items, and having to convince children who were picky eaters to choose healthy food. Therefore, an additional need for guidance on adopting balanced diets that the whole family could adhere too was required, as well as information on dietary plans for specific medical conditions or allergies. Parents also requested that content be short and easy to read.

In terms of physical fitness, parents requested that content be related to guidance that would improve their understanding of the benefits of exercise and the reasoning behind it. Parents sought ideas for alternative forms of exercise as well as exercise routines that could be done at home without proper gym equipment, and with the whole family. Parents also requested content that discussed the best forms of physical activity and how much exercise would be required for optimal health. Parents perceived some barriers related to their participation in physical fitness activities, such as poor motivation, lack of energy, dislike for certain types of vigorous exercise, and limitations on access to gyms and gym equipment. Therefore, parents requested support to overcome these barriers by using ideas for making exercise more enjoyable for the whole family, as well as methods of improving their own motivation and energy levels.

Finally, concerning psychosocial well-being, parents requested that content in the parent guidance intervention be focused on helping them improve communication with their children, helping their children build a better future for themselves, and recognising when their child needs help. Parents also requested practical ideas for spending quality time with their family members and advice on ways in which they could lessen the impact of technology on family activities. Furthermore, parents sought advice on finding resources for a variety of purposes, including finding scholarships for their children and providing them with plans for their future occupations. Parents also requested that content relates to discipline strategies and parenting styles.

### **5.2.3 Secondary research question 3**

#### ***What are university researchers' perceptions on the development of a parent guidance intervention through mobile devices?***

The university researchers in the current study recommended that parents receive guidance on the topics of healthy eating, physical fitness, and psychosocial well-being. In terms of healthy eating, they suggested that the content be based on improving parents' understanding of basic nutrition and the various food groups. Researchers suggested that parents be sent recipes at least once a month along with practical guidelines and step-by-step instructions for food preparation. In addition, researchers noted that parents required guidance on optimal feeding of their children and as such developed content about lunch box ideas, special dietary requirements, and managing fussy eaters.

Considering physical fitness, researchers suggested that content include ideas for home exercises that could be done with the whole family and without any equipment. Furthermore, they necessitated that parents be informed of the benefits of physical fitness and the different components thereof. They also suggested that the content include advice for increasing motivation to exercise and sticking to routines. Finally, researchers proposed that parents should be sent visual depictions of certain exercises to encourage them to complete them without confusion.

In terms of psychosocial well-being, researchers suggested that guidance be provided on the ways in which parents could support their children to build a future for themselves, become more resilient, and improve their communication skills. They requested that content also consists of ideas for spending quality time with loved ones and activities that the whole family

could partake in. Researchers also suggested that parents be supported with information on various parenting styles and discipline practices, as well as methods they could use for coping with stress. Moreover, guidelines on recognising signs of distress in a child as well as dealing with bullying were necessitated. Finally, researchers suggested that some content relates to more practical advice for accessing child grants and child maintenance.

#### **5.2.4 Secondary research question 4**

##### ***How do parents perceive the suitability and options of using mobile devices for a parent guidance intervention?***

Based on the findings of the current study, parents perceive that mobile devices are the most suitable mode of delivery for a parent guidance intervention, above alternative modes such as parent meetings and information letters, in that order. Parents suggested that mobile devices could offer access to immediate information in a way that was user-friendly and easy to understand. Parents also suggested that mobile devices were the most easily accessible of all the aforementioned modes of delivery and had the least number of limitations associated with them.

Whereas some parents preferred the use of interactive meetings for intervention delivery, problems associated with logistics and poor attendance made this form of contact less efficient. Due to time constraints and prior commitments, parents perceived attending in-person workshops as less ideal. Thus, using mobile devices was the preferred method by the majority of parents, who also noted the mobile devices could cover large areas and information could be spread widely.

Finally, parents viewed mobile devices as most efficient, especially if the messages would be sent frequently in order to sustain interest. Parents also suggested using short and easy to read messages rather than long bouts of information. Although some parents noted that costs of data and lack of mobile network coverage may impede the delivery of the intervention, evidently the majority of parents preferred this method over all others.

#### **5.2.5 Conclusions in terms of the primary research question**

This study of limited scope was guided by the following research question: ***How can parent guidance on health promotion practices be utilised in resource-constrained communities through mobile devices?*** Based on the findings of the study I can conclude that mobile devices

can be used to effectively deliver healthy eating, physical fitness, and psychosocial well-being content to parents in resource-constrained communities based on their recommendations and needs.

In linking the findings I obtained on the use of mobile devices for parent guidance in resource-constrained communities to Bronfenbrenner's bioecological model of development (Bronfenbrenner, 1979), it appears that the implementation of a parent guidance intervention can have an impact on the different systems in which the parents function. According to Bronfenbrenner's model (Bronfenbrenner, 1979), individuals function within a variety of interwoven systems in their physical environment and social context (Donald et al., 2010). In particular, Bronfenbrenner emphasises the proximal processes within these systems and called them "the engines of development" (Bronfenbrenner & Evans, 2000, p.118). The interactions between the parent and his or her child is one such example of a proximal process which can be impacted by a parent guidance intervention.

Microsystems consist of any immediate relationships or organisations the parent interacts with, such as the family, neighbourhood, or school setting (Ashiabi & O'Neal, 2015). At the level of the microsystem, the parents in resource-constrained areas were exposed to information from university researchers in the areas of healthy eating, physical fitness, and psychosocial well-being, using a parent guidance intervention utilising mobile devices. The parents, upon receiving this information on their mobile devices, had the opportunity to reflect upon and change their current behaviours or thoughts related to healthy eating, physical fitness, and psychosocial well-being. The interrelationships between different microsystems constitute the mesosystem (Bronfenbrenner, 1979). At the level of the mesosystem, parent guidance interventions on health promotion practices have the potential to exert a positive influence on children's well-being through children's valuing of good health-related practices. Because the university researchers assisted in specifically tailoring the content and mode of delivery of the parent guidance intervention for these parents, the intervention can certainly have a positive impact.

The exosystem is the context experienced vicariously by the parents, as they are not centrally embedded within it but it does have a direct impact upon them. A parent guidance intervention on health promotion practices stemming from the exosystem can be empowering for parents and the entire family, whereas the stress many parents experience at work may be degrading. The macrosystem, which is the larger system of societal beliefs and economic structures, can



influence what, how, when and where we conduct our relations (Bronfenbrenner, 2005). For example, a parent guidance intervention on health promotion practices may positively impact a mother through the provision of educational resources on health-related practices. It may empower that mother so that she, in turn, is more affective and caring with her children (Swick, 2004). The final subsystem of Bronfenbrenner's bioecological model of development (Bronfenbrenner, 1979) emphasises the influence of time on an individual nested within the various subsystems. The parent guidance intervention on health promotion practices utilising mobile devices to promote change in the parents' environment to encourage change over time.

Participants in the current study, including the parents and the university researchers, recommended specific ideas for the development and implementation of a parent guidance intervention utilising mobile devices. The parents identified topics for which they requested additional support and guidance, while the university researchers addressed these requests and provided guidance through the intervention. The use of mobile devices as a mode of delivery allowed the researchers to send information in a cost-effective and timely manner so that it reached parents immediately and the information could be easily accessed and understood. The findings suggest that by means of mobile devices, information which can improve the self-efficacy of parent participants can be delivered to them and empower them to support themselves and their children despite previous barriers to information access. I recommend that parents be encouraged to share relevant information with wider community members to enhance the spread of health promotion practices and increase support for healthy lifestyles across a wide area.

I conclude that parents in resource-constrained communities expressed a preference for mobile devices over alternate modes of delivery and that the content of the intervention addressed the parents' requests for guidance and support. Furthermore, I propose that similar interventions be used in resource-constrained communities for effective and efficient delivery of information across a large population group. I also propose that the parents involved in the current intervention provide their views and perceptions of the effectiveness of the current intervention.

### **5.3 CONTRIBUTIONS OF THE STUDY**

The findings of this study contribute to the existing body of research on the development and implementation of parent guidance interventions through mobile devices. Literature in this research area in South Africa is limited and therefore the current study adds value to this

particular context. The findings I obtained add specific insight into the recommendations by parents and university researchers on the development and implementation of a parent guidance intervention through mobile devices.

The current study furthermore contributes to the body of knowledge on the content of parent guidance interventions in resource-constrained communities. In addition, it provides insight into preferable methods of delivery employing mobile devices such as through the creation of WhatsApp groups. To this end, the findings of my study provide support for the potential development and implantation of parent devices using WhatsApp messenger as a suitable mode of delivery.

Finally, the study contributes to the broader research project that it forms part of. It adds to the current findings of the research project and provides baselines for future studies which will focus on parent perceptions of the parent guidance intervention delivered through mobile devices. As such, the current parent guidance intervention can later be improved and adapted based on parents' perceptions of the current intervention.

#### **5.4 CHALLENGES AND POTENTIAL LIMITATIONS OF THE STUDY**

Firstly, because the study followed a qualitative approach, a potential limitation is the lack of generalisability and transferability of the findings. The research was conducted at two specific schools in a specific setting and focused on specific areas of parent guidance. However, as mentioned previously, the aim of this study was not to generalise findings but rather to attain an in-depth understanding of perceptions of parents and researchers about the development and implementation of a parent guidance intervention through mobile devices in a particular setting. Because this study was informed by an interpretivist paradigm, I was aware of the limitations on the generalisability of my findings. However, I still aimed to enhance the transferability of my study by providing detailed descriptions of the researcher's recommendations and the parents' needs for guidance. It is at the readers discretion to decide on the potential transferability of the findings to other contexts.

In addition, I am aware that my presence in the PRA workshops may have influenced the interactions of the participants. I remained mindful of my position as a researcher and ensured that I allowed the researchers to share their recommendations openly. I did not note any cultural differences between myself and the researcher participants in the study. However, as some of

them spoke in Afrikaans, which is not my first language, I had to ensure that I translated data accurately to avoid mistranslations and misrepresented findings.

Finally, because this study forms part of my training as an educational psychologist, I had to ensure that I remained mindful of my role as a researcher throughout the process. As I have a strong personal interest in health promotion, I often found myself wanting to give further advice to parent participants on health-related practices outside of the content of the actual intervention. Because some of the parents messaged me privately asking for advice, I had to remain aware of my role and relay their questions to the researchers rather than try and answer them myself. I was challenged to keep my focus and remain objective while sending the messages for the intervention and interacting with the parents. I also engaged in debriefing sessions with my supervisor and colleague, which assisted me in remaining objective and focused throughout the study.

## **5.5 RECOMMENDATIONS**

In this section, I make recommendations for training, practice and future research.

### **5.5.1 Recommendations for training specifically for educational psychologists**

Based on the findings of this study, I recommend continued use of innovative forms of technology for the development and implementation of parent guidance interventions. I recognise the value of understanding parents' needs and perceptions before the development of an intervention to tailor content for the specific audience. I recommend that parents be involved as far as possible in the development of guidance interventions and encourage the use of collaborative workshops in this regard.

Training students in the context of community-based interventions is also recommended based on the findings of this study. Students in various help-related professions such as psychology, social work, and counselling may value opportunities to work in resource-constrained communities, which offer insights into the way of life of many South Africans. Studies conducted in resource-constrained communities are also valuable as the results can be used to inform local practitioners of pertinent issues and other relevant information.

### **5.5.2 Recommendations for practice**

I recommend that the findings of this study be applied practically in the community in which the study was conducted over the long term. I recommend that access to the content of the

intervention be shared with parents in other schools in the areas to enhance their understanding of health-related practices. I believe the content used in this intervention can be reused in future interventions offering parent guidance.

I also recommended that the findings of my study be used to guide future studies on the development and implementations of parent guidance interventions. If the parents perceive that the intervention was successful, the findings should be relayed to researchers in other communities who can then implement similar interventions in the contexts in which they work.

### **5.5.2 Recommendations for future research**

Based on the findings of this study, I suggest the following for potential future studies:

- ❖ The perceptions of parents on the efficiency of a parent guidance intervention delivered through mobile devices.
- ❖ The effectiveness of a parent guidance intervention through mobile devices in improving health-related behaviour in parents.
- ❖ The development of a South African mobile application for parent guidance that can be downloaded and utilised by parents in resource-constrained communities.

## **5.6 CONCLUDING REFLECTIONS**

In this study, I aimed to explore and describe the development and implementation of a parent guidance intervention through mobile devices. The findings of the study highlighted the suitability of mobile devices as a mode of delivery for a parent guidance intervention. Researchers developed the content of a parent guidance intervention based on parents' needs in these communities and the delivery of this information was successful.

This study provides baseline data for a follow-up study which will explore parents' perceptions of the effectiveness of the intervention. During this study, parents received guidance based on their specific requests and could relay this information to their families and surrounding communities.

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## LIST OF ANNEXURES

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**Appendix A:** Letter of Invitation

**Appendix B:** WhatsApp Group Guidelines

**Appendix C:** Final Themes and Related Sub-Themes Colour Coded

**Appendix D:** Transcribed and Coded PRA-based Discussions

**Appendix E:** Transcribed and Coded PRA-matrices

**Appendix F:** Reflective Journal

**Appendix G:** Field Notes

**Appendix H:** Visual Data

**Appendix I:** WhatsApp messages sent for the parent guidance intervention

## APPENDIX A - LETTER OF INVITATION

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### REQUEST FOR PARTICIPATION AND INFORMED CONSENT



Faculty of Education  
Fakulteit Opvoedkunde  
Lefapha la Thuto

Dear Sir/Madam

You are invited to participate in my study that investigates parent guidance on health promotion practices utilising mobile devices. I am currently busy with MEd study in Educational Psychology at the University of Pretoria. My study forms part of a broader project in collaboration with Fordham University in New York City, in which your child's school has been participating in recent years.

For this research, I will be inviting you as parents to join a WhatsApp group through which three messages will be sent every week for 26 weeks starting from May 6<sup>th</sup> 2019. The messages will be composed by university researchers in the fields of nutrition, physical fitness, and psychosocial well-being. The messages will offer relevant information on how you as parents can support or guide your child in the aforementioned fields. In addition to being a part of the WhatsApp groups, you will be asked to complete a survey at the end of the 26-week period about your experiences and perceptions of being part of the WhatsApp group. You may also be requested to provide voluntary feedback about the content and delivery of the messages at random times throughout the project.

I herewith request your participation in the WhatsApp group. The WhatsApp group will be used strictly for the delivery of nutrition, physical fitness, and psychosocial well-being information three times a week and will not allow any form of spam from any of the participants including the myself, the group admin. You will be able to leave the group at any time you wish to do so and will be informed of the WhatsApp group ground rules upon acceptance of participation in the study. Your participation is voluntary and you may withdraw from the study at any time you wish to do so. All information you provide will be treated as confidential and your name will not be made public to anyone or when presenting findings. You will be allowed to access any of the data collected during your involvement, as well as to the final results of the project.

The benefit of this study is that the findings may be used to inform future projects on suitable modes of delivery when providing parent guidance on healthy food, nutrition and lifestyle behaviour. We do not foresee any risks, will respect your dignity at all times and not harm you in any way.

If you are willing to participate, please send a WhatsApp message with your name and the name of your child's school to \* saying that you are willing to participate in the study, you understand you may withdraw from the study at any time.

Warm wishes

Ms Sarah Silber  
Telephone number: 082 935 9853  
e-mail: sarahsilber@gmail.com

Mrs Karien Botha (Supervisor)  
email: karien.botha@up.ac.za



## APPENDIX B - WHATSAPP GROUP GUIDELINES

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Thank you for being part of our Parent Guidance WhatsApp group. To ensure the best possible experience for all group members, we have established some basic guidelines for participation.

By joining this group, you agree that you have read and will follow the rules and guidelines set below:

1. The purpose of this group is to share 3 messages a week containing information pertaining to nutrition, physical fitness, and psychosocial well-being to members of the group for 26 weeks.
2. The content of the messages will be composed by university researchers and will be relevant, informative, and to the point. Some messages may include relevant links, pictures, or PDF documents.
3. In some cases, 3 messages will be sent to the group at one time each covering information related to a specific age group (preschool, primary school, high school). You are only required to read the information related to your child's age group and can ignore the other 2 messages.
4. You as a member are not required to respond to the messages or acknowledge receipt thereof.
5. You as a member are not required to provide feedback on the content of messages unless you wish to do so in a private message to the group admin.
6. Any questions or comments related to the content of the messages should be directed to the group admin in a PRIVATE message and not on the group.
7. No promotions, spam, jokes, religious messages or any other notices may be posted.
8. All defamatory, abusive, profane, threatening, offensive, or illegal comments are strictly prohibited.
9. Members who post irrelevant or insulting content will be asked to delete the posts. Repeated offenders will be removed from the group.
10. Members should not post any private information including names, addresses, or children's names to the group.
11. Messages sent to the admin containing irrelevant information or questions will not be responded to.
12. No posting before 8am or after 5pm, this includes private messages to the admin.
13. Keep replies, if appropriate, short and to the point.
14. The admin reserves the right to remove any member from this group who violates the above rules and guidelines.
15. You as a member reserve the right to leave the group at any time.

## APPENDIX C - FINAL THEMES AND RELATED SUB-THEMES COLOUR CODED

<b>Theme 1: Areas in which parents require guidance to support their children at home</b>
Sub-theme 1.1: <span style="background-color: #008080; color: white;">Guidance to enhance children's physical fitness levels at home</span>
Sub-theme 1.2: <span style="background-color: #800000; color: white;">Guidance to improve children's eating habits at home</span>
Sub-theme 1.3: <span style="background-color: #800080; color: white;">Guidance to improve children's psychological well-being at home</span>
<b>Theme 2: Suggested modes of delivery to implement a parent guidance intervention</b>
Sub-theme 2.1: <span style="background-color: #ffff00;">Information Letter</span>
Sub-theme 2.2: <span style="background-color: #00ff00;">School-based parent meetings</span>
Sub-theme 2.3: <span style="background-color: #00bfff;">Mobile devices</span>
<b>Theme 3: Using mobile devices as a mode of delivery</b>
Sub-theme 3.1: <span style="background-color: #ff0000; color: white;">Logistics of WhatsApp messenger</span>
Sub-theme 3.2: <span style="background-color: #0000ff; color: white;">Structure of messages</span>
Sub-theme 3.3: <span style="background-color: #808000;">Introducing the WhatsApp messages to parents</span>
<b>Theme 4: Content of the WhatsApp messages for the parent guidance intervention</b>
Sub-theme 4.1: <span style="background-color: #0000ff; color: white;">WhatsApp messages to support physical fitness at home</span>
Sub-theme 4.2: <span style="background-color: #ff00ff;">WhatsApp messages to support healthy eating habits at home</span>
Sub-theme 4.3: <span style="background-color: #008000;">WhatsApp messages to support psychosocial well-being at home</span>

## APPENDIX D - TRANSCRIBED AND CODED PRA-BASED DISCUSSIONS

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- *Discussion with Researchers during PRA workshop 1*
- *Discussion with Researchers during PRA workshop 2*

### **Researcher participants in PRA workshops**

Researcher 1- Project head and psychosocial well-being expert

Researcher 2- Project head and psychosocial well-being expert

Researcher 3- Postgraduate student who conducted Phase 1 of project

Researcher 4- Technology expert

Researcher 5- Physical fitness expert

Researcher 6- Nutrition expert

<b>PRA workshop 1: March 2019</b>		
<b>Feedback on part 1 of project</b>		
<b>Creation of posters for implementation and development of project- ideas for content and delivery</b>		
Researcher 1:	<p>Welcome everyone and thank you for being with us today.</p> <p><u>The purpose of this meeting is to just have a look at the previous and current phases of our project and an analysis of the parents’ needs and expectations determining a structure and outline of the content of the intervention and in finalising the format and the mode of delivery.</u> We are grateful to have everyone here to assist us with this project. Please feel free to ask any questions as we go along.</p>	<p>Background of project</p> <p>Deciding on final mode of delivery</p>

<p>Researcher 2:</p>	<p>So, just to let you know how it all started before we go into the finer details. <u>This is a collaboration between the UP institute for food, nutrition and well-being.</u> It is an interdisciplinary project, we have a lot of people working with us together on this project. <u>Our project leaders are in nutrition, physiology and education.</u></p> <p>The purpose is to <u>create positive change in vulnerable communities utilizing schools as an avenue.</u> Then our partners in the project... <u>We have K who's doing psychosocial functioning. P who is in charge of physical fitness. R is also doing psychosocial functioning and G is our food choice and nutrition expert. Then we have H who is doing technology and mobile devices – our tech guru.</u></p>	<p>Purpose of project</p> <p>Topics</p> <p>Schools for health promotion</p> <p>Introduction to researchers</p>
<p>Researcher 1:</p>	<p>Next, we will talk about <u>our partners in the project.</u> We have <u>the wonderful headmasters from SCHOOL A and SCHOOL B.</u> We are so grateful to have you with us. And then of course, we have our <u>postgraduate students</u> at the University of Pretoria. Who have been working hard on this project! And will continue to work hard...we hope.</p> <p>So our <u>project started in the year 2011.</u> This is the <u>Win life project -wellness in lifestyle, intake, fitness and environment.</u> It started with three primary schools in Bronkhofspruit. We first...it started with <u>the curriculum enrichment for life skills and natural science.</u> It involved Grade 4-6 learner's, parents and teachers. So the teachers were the facilitators. <u>We found out that the teachers didn't really implement the curriculum as negotiated and it wasn't really set out as it was meant to be.</u></p>	<p>Project partners</p> <p>Schools involved</p> <p>Background of project</p> <p>Previous intervention, learners and teachers</p> <p>Issues with intervention</p>

<p>Researcher 2</p>	<p>There were a <u>lot of activity based creative joined homework assignments that we wanted the teachers to use</u> but it didn't happen. Then we <u>partnered with Fordham University in New York and added psychosocial well-being to the projects.</u></p> <p>The <u>second project was the collaboration between the University of Pretoria and the United States of America.</u> So this involved two primary schools in Pretoria and two schools in the Bronx in New York City. The intervention was by <u>University students and teachers it involved grade 1-3 learners' parents and teachers. We used activity-based creative home-based activities and information.</u></p>	<p>Format of previous intervention</p> <p>Next phase of project</p> <p>Start of second project- parents and teacher guidance</p>
<p>Researcher 1:</p>	<p>The intention to change in these teachers and learners was very clear. <u>But we found a lot of children can't change if their home environment doesn't though and that's why we learnt that we need parent guidance.</u> So from these past projects we've learned that is a <u>positive outcome for learners.</u></p> <p>There was a <u>reported transfer of focus areas, to parents and wider circles of care.</u> There is need for continued involvement, also with learner's in other grades. <u>Overall and most importantly there is a need for parent guidance.</u> There's also an indication, that <u>contact sessions are possibly not the best option.</u></p>	<p>Need for parent guidance</p> <p>Positive outcome for learners</p> <p>Contextual framework- transfer of information</p> <p>Parent meetings not best option</p>
<p>Researcher 2:</p>	<p><u>So this is our experience with the parent contact sessions. We had two sessions in each school with the parents. There was a medium to high intention to attend but a poor realization rate. There were challenges such as transport costs, workload and other responsibilities.</u> But there is a strong need for</p>	<p>Parent meetings as a mode of delivery</p> <p>Cons of parent's meetings</p>

	<p>continued support various topics of interest in support of healthy functioning and a <b>desire to be effective parents</b>.</p> <p>The current focus of the project is to provide pairing guidance on the three following topics <b>food choice and nutrition, physical fitness and activity and psychosocial functioning of children and supporting children</b> and then of course alternative modes of delivery.</p>	<p>Psychosocial well-being related guidance</p> <p>Content of messages</p>
<p>Researcher 1:</p>	<p>So this is our timeline for the project. We would like to finalize the outline of the intervention in March and April of this year identify suitable content per focus area. We want to <b>structure the topics according to available sessions, then develop the content.</b></p> <p>We will inform parents of the intervention via a <b>letter which will invite all the parents of which there are about 700 at the schools. We will compile a list of the parents that want to participate.</b></p> <p>Then we will create a <b>WhatsApp group of participants and communicate the purpose and the housekeeping rules. So we know in WhatsApp groups, the maximum number of participants per group is 256. We need to be aware of the of this and create two or three groups per school... maybe one for foundation phase parents and one for senior parents.</b></p> <p>Then in May to October of this year we are going to implement the intervention document the progress and the <b>responses for six months. So that's twenty-six</b></p>	<p>Structure of messages</p> <p>Information letter</p> <p>Delivery of letter to schools</p> <p>Logistics of WhatsApp</p> <p>Housekeeping rules</p> <p>Segment audience</p>

	<p>weeks in total some weeks to be replaced by alternative modes of communication.</p> <p>We will have continuous reflections and changes if needed on Mondays. We will do nutrition on Mondays and Wednesday will be psychosocial well-being and Fridays will be Fitness. In November will be the data generation and the feedback session with parents who participated at both schools. We should also ask for feedback from time to time possibly by means of a survey every month on Google forms, and there could be a reward for participating.</p> <p>So today we are going to identify the topics to include for each focus area, outline the topics of broad content per week, agree on format of communication and provide guidance on the use of WhatsApp when doing parent guidance. A is going to give us some information on her experience last year...</p>	<p>Structure of messages</p> <p>Structure of messages</p> <p>Using mobile devices- google forms for feedback</p> <p>Structure of messages</p> <p>Logistics of WhatsApp</p>
<p>Researcher 3:</p>	<p>I reached out to the parents to attend this Workshop. I realised that the expected 45 parent participants were not all likely to arrive. The headmaster warned me that very few parents attend after-school meetings or workshops unless the learner's reports are to be collected at the same time. He stated that many parents experience difficulties with transportation and childcare arrangements.</p> <p>A number of things have stood out to me during the workshops. Firstly, I was struck by how concerned the parent participants were about whether or not they really know their children. At both schools, the participants seemed to want assurance that their</p>	<p>Outline of needs analysis conducted last year</p> <p>Parent meetings</p> <p>Parent meetings- possible challenges</p> <p>Parent needs for psychosocial wellbeing related guidance</p>

	<p>children were okay, fearing that their children were not opening up to them if there was a problem. This may be due to lack of open communication or transparency between children and their parents.</p> <p>This may also be connected to overly authoritarian parenting strategies.</p> <p>However, this may also be due to parents having busy work schedules and many responsibilities that limit the time available to spend quality time with their children.</p> <p>As one parent mentioned, there may be four or five children in one household, making it difficult to spend one-on-one time with a child.</p> <p>In terms of diet, I found it very interesting that the participants wanted to understand the ‘why’ and ‘how’ of healthy eating and nutrition. I expected more questions related to whether or not something is healthy but realised that the participants really want to understand the specific benefits or drawbacks of certain dietary habits. There was a certain amount of awareness on what foods were good and bad, however, some participants wanted to know how ‘good’ or ‘bad’ they are – and ‘why’. The participants held strong beliefs about what foods were particularly ‘bad’, such as sugary drinks and fast foods. However, there appeared to be a consensus among the parents that these foods may be acceptable in moderation, yet there seemed</p>	<p>Communication issues</p> <p>Parenting and discipline styles</p> <p>Quality time ideas</p> <p>Balancing work and family</p> <p>Balancing work and family</p> <p>Need for nutrition related guidance</p> <p>Need to understand why and how</p> <p>Why? Bad vs good foods</p> <p>Some awareness</p> <p>Portion size, how much?</p>
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	<p>to be confusion regarding the exact quantities that are acceptable.</p> <p>This was also something that was expressed in terms of physical fitness. The participants wanted to know why exercise is important.</p> <p>This may be important to the participants as many of them seemed to associate fitness with strenuous exercise that requires a lot of effort and dedication. Therefore, developing an understanding of why it is so important to be fit may be necessary to increase motivation – or the willingness to put in effort.</p> <p>One thing that stood out to me was the participants limited knowledge of different types of physical activity. The participants referred to jogging and walking most often, as well as weight lifting and exercise that can be done at the gym. Thus, it may be valuable to expose participants to alternative forms of exercise.</p> <p>And then in terms of modes of delivery, there was a very positive response to use of mobile technology. Parents said it was more accessible and more consistent. They did however mention network, data, and electricity issues. So with regard to the structure of the messages, parents want clear and concrete information. Given language barriers the messages should be short and simple, with pictures to support</p>	<p>Need for physical fitness guidance</p> <p>View of exercise</p> <p>Increase motivation</p> <p>Types of physical activity</p> <p>Limited knowledge</p> <p>New ideas</p> <p>Mobile devices</p> <p>Possible challenges</p> <p>Structure of messages - short/simple/clear</p> <p>Content of messages</p>
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	<p>written information. There should also be practical, step by step guidelines.</p>	
<p>Researcher 4:</p>	<p>Okay. Now we are talking about the WhatsApp messages. So I'm going to be talking about nudges...that is basically a gentle prod in order to attract attention to alter behaviour. It alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives.</p> <p>To count as a mere nudge, the intervention must be easy and cheap ... nudges are not mandates. Putting fruit at eye level counts as a nudge ... Banning junk food does not. Nudges are small changes in the environment that are easy and inexpensive.</p> <p>Some of the guidelines for WhatsApp, we must get permission from the parents and make it clear that they can opt out they can leave the group whenever they want. We want to keep the messages short and simple build an effective strategy to help with these nudges choose the wording carefully and correctly for the right audience.</p> <p>We are only going to be sending three messages a week...we need to Keep it fun segment our audience... you wouldn't talk to a brand new visitor the same way you would for a loyal customer... so the same goes for text. We need to segment the audience to ensure that each user gets relevant valuable content</p>	<p>Mobile devices- nudges</p> <p>Mobile devices – nudges</p> <p>Logistics of using WhatsApp Structure of messages</p> <p>Structure of messages- 3 x per week</p> <p>WhatsApp logistics- segment audience into groups</p>

	<p>We also want to limit data usage so that it means no videos. We're going to track open and click rates. So by doing this we will be able to see who has seen the message on WhatsApp. We will use Google forms for feedback as well. Then we just need to discuss a name and a logo for Multotech.</p>	<p>Logistics of WhatsApp- no videos</p>
<p>Researcher 1</p>	<p>Ah yes before we actually implement the parent guidance intervention we need inform the parents and let them access the WhatsApp groups. To do this we are going to get our masters students to go to the schools and hand out the information letter informing the parents about the project. So ladies you need to think of something creative to get these kids to ask their parents to join the project, this is the starting point for communication to encourage the parents to join. In the letter we will put your contact details so the parents can send you their details and you can add them to the groups.</p> <p>We will also put in the consent form and all the other ethical information...so ladies think of some creative ways to encourage the children to ask their parents to join the project, this is the starting point for communication to encourage the parents to join. We will also hand out the letter with some goodies from Multotech... a bag, a key ring, we'll pack these before we send out the letters. This is our starting point of communication with the parents so it must be exciting.</p> <p>We are also considering sending an SMS to all parents to remind them to RSVP on the letter and send their details. This will be done before the information</p>	<p>Information letters</p> <p>Delivery of letter to school</p> <p>Incentive</p> <p>Information letter logistics</p> <p>WhatsApp group logistics</p> <p>Information letter and incentive</p> <p>Mobile devices</p>

	letter goes out. We can also create an email database of the parents for those who have emails	Web based communication
Poster 1 and 2 (spoken about together)	Okay, we are going to discuss the guidelines when using the following modes of delivery. The different modes of delivery for our intervention. Ways in which we can deliver this information to the parents. It was found that most parents agree that mobile devices would be the most efficient way for information to be delivered. Some said they preferred face-face meetings, and perhaps we could integrate this later on, but we know there are many challenges with this in terms of logistics and getting parents to attend.	Mobile devices
Researcher 4:	So in the end we had three options letters, mobile devices and parent evenings.... in terms of letters, this had quite a few cons because they just can be quite costly to send out and they will often get lost. And it also takes a lot of time to type out... and you know children will lose the letters, we won't be sure they will reach the parent. But anyhow, the content of these letters would be on the health information from our experts. And they could be sent out possibly four times a year.	Parent meetings Challenges Information letters Lost/costly
Researcher 1:	In terms of parent meetings, parents could meet monthly and speak about content related to nutrition exercise and psychosocial well-being... the logistics of forming parent meetings are quite difficult. Also, there is a lack of interest in these kinds of meetings because parents are busy and conflicting schedules are a common reason for non-attendance. and it takes a lot of time. We know from past experience this does	Content Logistics Parent meetings Challenges Time consuming

	<p>not work very well and we have heard from the principles at each school that participation is unfortunately very poor. Also it would be a lot of information to speak about at each meeting, a lot of time, and in this day and age time is costly and parents would prefer something quick and easy.</p> <p>Now for the winner...Mobile devices which is the proven best mode of delivery, we found positives are related to this is that there is always immediate information, It's always available and reliable. It's convenient and it's easy and trustful to use. WhatsApp is always available and easy to use, most- probably all parents have WhatsApp on their phone. Content we could send include recipes, pictures of recipes dietary information on well-being. The possibilities are endless. This is the way forward.</p> <p>We want short messages with no videos as they will use too much data... all the information about health.</p> <p>Long messages can discourage parents from reading the message because it's too much effort. and then the negatives we had about modes of delivery would be that ...Um, possibly some parents might not have data, the network coverage might be low as well and some of them might change their numbers and they won't have access to the WhatsApp groups anymore. But honestly these days there will be very few parents without phones. WhatsApp is very popular in South Africa, I am sure most parents will have access.</p>	<p>Mobile devices</p> <p>Preferred</p> <p>Trustworthy/immediate</p> <p>Logistics of WhatsApp</p> <p>Content of messages</p> <p>Structure of messages</p> <p>Challenges of mobile devices</p> <p>Logistics of WhatsApp</p>
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<p>Poster potential content:</p>	<p>3- We found out that parents need guidance on the <b>three following topics nutrition physical fitness and psychosocial well-being in terms of nutrition</b>. We want to provide them with a <b>lot of knowledge about healthy eating and nourishing their bodies. We want to link this with cognitive development inside them talk about the importance of certain types of food.</b></p>	<p>Content of messages</p>
<p>Researcher 1:</p>	<p><b>The parents seemed to have very sort of generic ideas about what was healthy and unhealthy, so they want more knowledge. We also want to state that parents have the responsibility to nourish their children and to find food we went to provide examples of recipes and practical guidelines for these parents.</b></p>	<p>Nutrition guidance</p> <p>What, how much, why</p> <p>Parent responsibility</p>
<p>Researcher 2:</p>	<p><b>In terms of physical fitness, we're going to talk about the different motivational levels of physical fitness both internal and external give these parents encouragement of how to keep up with their physical fitness. We also went to link this with cognitive development, especially in children the importance of keeping active as a child and the link this has with academic success. Yes, so also knowledge of the different types of fitness like cardio muscle movement and strength. Exercising for enjoyment. A lot of these parents think that excising is a chore we want to try and integrate physical activities into day-to-day routine.</b></p>	<p>Parent needs on physical fitness guidance</p> <p>Academics/support</p> <p>Routine/balance</p>
	<p><b>Then in terms of Psychosocial well-being these parents really need support. We want to try and change the way that they manage their everyday lives increase their motivational levels. Ask the parents take responsibility for their children's needs. Tell</b></p>	<p>Needs for psychosocial wellbeing guidance</p> <p>Motivation</p>

<p>Researcher 1:</p>	<p>them the importance of family time. And parental involvement and of course the impact that technology has on this also striving to achieve a balance in one's life a balance between technology. Spending time with family, of course positive organizational skills in the family as well as just increasing energy levels.</p>	<p>Family time  Technology  Energy levels</p>
<p>Poster 4 and 5 (Physical fitness):  Researcher 4:</p>	<p>In terms of physical fitness. We know we'll be sending out 26 messages and these measures will go out on Fridays so our potential topics for this.</p>	<p>Structure of messages</p>
<p>Researcher 5:</p>	<p>Our potential topics would be:</p> <ul style="list-style-type: none"> <li>• what causes movement</li> <li>• what is physical fitness</li> <li>• health related fitness</li> <li>• skill-related Fitness</li> <li>• Brain Fitness</li> <li>• neuro plasticity performance and health</li> <li>• and the win life home gym, which a lot of parents requested. They wanted to know how to make a gym in their own home.</li> </ul> <p>In terms of what causes movement... So parents want to know the science behind exercise, the reasoning behind exercise, why we have to exercise. SO here we can talk about the stimulus from the brain ... how this affects motivation, how it causes movement...what gives you energy, the different levers between muscles.</p> <p>And then in terms of Fitness and the brain, changing our mind and training your brain in order to heal your heart. We also want to give the parents new ideas for</p>	<p>Need for physical fitness guidance  Content  Home gym-examples  What, why and how much of physical fitness  Motivation for exercise  Reasons for exercise</p>

<p>Researcher 4:</p>	<p>exercise- dancing, hula hooping, hiking, even yoga... it doesn't always have to be running or weight lifting.</p> <p>And then we have health related fitness and skill-related fitness. So there's different components of each of these. Health related fitness. We have</p> <ul style="list-style-type: none"> <li>• muscular strength</li> <li>• muscular endurance</li> <li>• body composition</li> <li>• cardiorespiratory Fitness</li> <li>• and flexibility.</li> </ul> <p>So we know in fitness, performance is determined by brain agility and also body agility. So a balanced brain and body is what leads to Peak Performance. These are the kind of things that we want to be telling the parents.</p> <p>And of course, we will give them information on building a home gym something that gives them ideas for a warm up and a workout they can do in their home like using water bottles as weights using tears to do squats leaning against a wall to do lunges.</p> <p>And we also want to talk about motivation in exercise small rewards that they can give themselves whether these be words or actions or something small intangible they can use to help them stick to their routine. And that's the basis behind exercise... to stick to goals and they recognize their triggers and make decisions to exercise. This will become ingrained in their minds and soon It will become a part of the routine.</p>	<p>Types of exercise</p> <p>Components of HRF</p> <p>Brain and body link</p> <p>Making a home gym</p> <p>New ideas</p> <p>Motivation for exercise</p> <p>Sticking to routine</p>
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<p>Poster 6 and 7 (Nutrition)</p>	<p>So for nutrition, the main thing we wanted to do is let the parents exceed responsibility for the optimal feeding of the children.</p>	<p>Need for nutrition related guidance</p>
<p>Researcher 6:</p>	<p>We want to give them scientifically-backed information on nutrition and that's why we thought we'd introduce the food-based dietary guidelines, which will give the parents accurate information on how much they should be eating... and what. what they are meant to be eating giving ideas about portion Sizes, different types of foods according to their body weight and according to their blood groups. Food-based dietary guidelines (FBDGs) are brief, positive dietary recommendation messages that are used to inform consumers how to choose food and beverage combinations that will lead to a diet that is adequate, that meets nutrient need and that is, at the same time, prudent, for example, which lowers the risk of noncommunicable diseases.</p>	<p>What, why, how much</p> <p>FBDG</p> <p>Portion sizes</p>
	<p>We also want to give them practical guidelines on their choices. So to do with portion size and different types of calories .... We also want to give them ideas that are more affordable, but also healthy so lunch box ideas for the children. What they can put inside their lunchbox something that's easy to make something that's quick and affordable.</p>	<p>Guidelines</p> <p>Affordability</p>
	<p>So the recipes we send them we want them to be easy quick and affordable and the pros and cons of buying purchase food as opposed to doing homemade. the parents also request the guidance on Special Needs,</p>	<p>Lunchbox ideas</p>

	<p>like allergies eating for your blood type for heart diseases and non-communicable diseases.</p> <p>Then in terms of choices, we've got the five-P's</p> <ul style="list-style-type: none"> <li>• product</li> <li>• Portion size</li> <li>• price</li> <li>• preparation</li> <li>• and preservation</li> </ul> <p>What and how much do these parents actually have to give their children? So these are the main themes for healthy eating.... what and why how.</p>	<p>Recipe ideas</p> <p>Special diets</p> <p>5 P's of nutrition</p> <p>Parent responsibility</p>
<p>Poster 8: psychosocial wellbeing  Researcher 2:</p>	<p>Then in terms of Psychosocial well-being the parents really requested advice on how to support their children. Our first topic would be building a future for the child. So this would be giving them advice on saving for their children for the future Financial advice, advice on school work how to help their children with homework and ensure that they are doing their work and how to support them during exams and tests.</p> <p>Mobilizing resources. So where can I find information on things like scholarships and applying for University?</p> <p>Need to be able to link to resources for them and send them a links to certain sites that they can go to help them apply for these things. Number two would be recognizing when a child is in distress. So parents said a lot of concern about what to do if a child was</p>	<p>Need for psychosocial wellbeing guidance</p> <p>Building a future for child</p> <p>Financial advice</p> <p>Mobilising resources</p>

	<p>being bullied or if they showed signs of depression and what are the signs of depression.</p> <p>They wanted to know what must they do if a child is misbehaving. there were big questions surrounding communication...parents want to know which strategies work best and how to get their child to open up to them. How do you communicate with your child and for many emotional? Connection with them without overstepping any boundaries.</p> <p>So another topic would be normative development. So how do you know if what your child is going through is normal a part of development or something that you should be concerned about. So this is in terms of social emotional psychosexual. What are the various developmental Milestones that the child should be reaching and what happens if they don't reach then....</p> <p>So this is about when to instill discipline and how to do It... possibly the different parenting Styles and discipline Styles. How do you know when you are mean to use more discipline or whether using too much discipline? And how to find that balance between discipline and also being a supportive parent parents also requested ideas for spending quality time with their children and paying them more attention.</p>	<p>Links for resources in messages</p> <p>Recognising distress in a child</p> <p>Discipline strategies</p> <p>Communication</p> <p>Developmental milestones</p> <p>Parenting styles</p> <p>Attention</p>
<p><b>PRA Workshop 2: 3 April 2019</b></p> <p><b>Macroplanning for parent guidance intervention</b></p>		
<p>Researcher 1</p>	<p>I think it would be great if we had a different theme for every week or maybe every couple of weeks... like a broad overall theme that we can use. And then</p>	<p>Stricture of messages</p> <p>Use of themes</p>

	within everything we can chat about different aspects that might be important for the parents.	
Researcher 2	Ya I think if we <b>have different themes that the messages can fall under it will be good</b> . From the first meeting we know the various areas the parents requested guidance in. I jotted down some ideas I will share- <b>Health and well-being</b> <b>Understanding my child</b> <b>Being a good parent</b> <b>Supporting my child</b> <b>Towards a good future</b> <b>And then also practical application</b> , we know the parents requested <b>practical ideas a lot</b> .	Broad themes for messages  Structure of messages, themes to use  Practical advice in messages
Researcher 1	Wonderful those are great, we can probably include up to 5 or 6 weeks' worth of messages under those themes?	
Researcher 2	Definitely-	
Researcher 1	Ok I know you have all already thought of some of the subtopics for the messages so I think this morning if we can just write them out and maybe get a brief description of each one... and then you know you will each send to S at the <b>start of each week and she will send to the parents</b> .	Logistics of WhatsApp, timeframe of messages
Researcher 2	Yes maybe if we can start with just the <b>introductory message</b> I think the first week we must just be introducing the concepts to the parents	Introducing concepts to parents
Researcher 4	Yes that's right we want to first just <b>thank the parents for taking part and maybe that will also be a good time to explain the WhatsApp rules again for the groups</b> , S is going to type that out.	Introductory message content, reiterate rules
Researcher 1	Ah yes of course ok so <b>if we add to our planning that first day week 1 is when we send the introductory</b>	

	<p>message, if we just give the parents a brief overview of the project and remind them of the rules I think that is fine?</p>	Introductory message
Researcher 4	Yes, we can do that	
Researcher 2	Ok let's start with nutrition because that is going to be on Mondays, Munching Mondays, first day of the week for you!	Structure of messages, begin with Nutrition on Mondays
Researcher 6	Yes, I am lucky! Ok if I can maybe just give a brief overview of the topics I will include?	
Research 1	Perfect	
Researcher 6	<p>Great. Okay. So if we can start with the importance of the parent's role in the child's well-being. Okay, so that is just again to encourage the parents to take an active role in the children's nutrition. So they I think if we can just talk about various things that parents can do and being a good role model for their children. So I think that would be a good introductory message for the nutrition component.</p> <p>Then if we move forward, so we're going to be talking about the food pyramid. So I'm going to introduce that with maybe a few images. I don't know if that's possible. If you can do that?</p> <p>Okay, you can and then we'd also be talking about like the food pyramid on a plate so showing them what different food groups you can get on a plate like the various carbohydrates and protein and fats because you know, I find that so many of these parents. They think that certain food groups are not good or things aren't good for them and then they cut them out completely.</p>	<p>WhatsApp messages related to nutrition week 1</p> <p>WhatsApp messages related to nutrition week 2</p> <p>Images in messages</p> <p>WhatsApp messages related to nutrition week 3- food pyramid on a plate</p>

	<p>So what I want to do is explain that things are good in moderation and that you can have your cake and you can have your chocolate as long as it's in moderation, you know what I mean? Okay. Then again, a big thing I want to be talking about is the <b>food based dietary guidelines</b>. Okay, so there is</p> <p>a lot of information about that online. So I'm going to refer the parents to this information and just it basically gives an overview of different portion sizes and <b>its trusted information</b>. It's something that's accurate something that <b>I know you mentioned that the parents weren't too trustworthy information. Well, this is exactly that this is scientifically proven</b>. So that's the food-based dietary guidelines.</p> <p>Yes then over the next few weeks I will just <b>introduce the different food groups and different quantities and examples of the different food groups for the parents</b>. So like the <b>carbohydrates group, the proteins, fats, salts and minerals and what's the other one... the vitamins</b>. So to speak about each of those maybe in <b>different weeks just give examples of each speak about how much of each you should be having</b>.</p> <p>Okay, okay, then in terms of speaking about these things with your children.... <b>So communicating the food plate with my child</b>. So how to <b>explain to your child what they should be eating and what they shouldn't be eating, how much they should be eating</b>. So how the parents can do this, how they can get that message across.</p>	<p>WhatsApp messages related to nutrition week 3-FBDG</p> <p>Parents requested trusted information</p> <p>WhatsApp messages related to nutrition weeks 4-9</p> <p>WhatsApp messages related to nutrition week 10-communicating with child about nutrition</p>
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	<p>Then in terms of meal planning. I'm going to be discussing the 5 P's. So that will also be over five weeks of messages. So it would be like the different products in meal planning, what you should buy if we look at the various grocery stores here in South Africa, which ones are the best for these parents to choose. Then the portion sizes. So how much of the food they should be having because I know that's a big concern with people of all ages how much they should be having. So I want to give information on that.</p> <p>Then the prices are very important...so we know that these parents come from who resource-constrained communities. So we want to find the least expensive food something that they are able to make at home that is less expensive.</p> <p>Then of course in terms of preparation how to make enough food for the week, because I know in the research it shows that parents especially in the low-income communities that don't have a lot of knowledge about food preparation and They'd rather go and buy like these fast foods instead of making their own food because they really don't have the knowledge of how to do it then preservation. So how to make the food last longer. That's also in terms of luck saving money making your food last longer how to freeze it what can be Frozen What can be dried? What can we can't how long you can keep different kinds of food?</p>	<p>WhatsApp messages related to nutrition week 11-16- 5P's of nutrition</p> <p>Products</p> <p>Portion sizes</p> <p>Prices</p> <p>Preserving food</p>
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	<p>Okay, then I'm speaking about ideal body weights. So that's also something that can be spoken about with the children. So what is an ideal body weight for a seven-year-old, eight-year-old, nine-year-old, all those different ages. Even adults, they're struggling with the concept of maintaining an ideal body weight... well I know we all are!</p> <p>Then food allergies was a big one that came up so prevention and managing of food allergies what people should be eating if they have gluten intolerance or lactose or if there is some allergy that comes up later in life. How do they manage these food allergies? And also how do they prevent them? Because like nuts, for example, some people are born with a nut allergy. While others develop it later on in life and there are certain things that they can do to stop developing that allergy.</p> <p>Ummm... now controlling blood pressure in both children and in adults. So what foods they should eat to keep their blood pressure down. Exercise they should do although that's more comes into the physical... but it's goes hand-in-hand with the nutrition.</p> <p>Then another topic would be preventing non-communicable diseases, which is obviously a big thing in South Africa. So just talking about the different diseases that we do have and the importance of good nutrition in boosting your immune system.</p> <p>Then this is a big one so being able to sustain those healthy eating habits. How... okay now they have all</p>	<p>WhatsApp messages related to nutrition week 17 – ideal body weight</p> <p>WhatsApp messages related to nutrition week 18/19 – allergies</p> <p>WhatsApp messages related to nutrition week 20- blood pressure</p> <p>WhatsApp messages related to nutrition week 21- NCDs</p>
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	<p>this information, but how do they keep it up for the rest of their lives. You know, how what do they need to do to encourage their children to keep up these healthy eating habits?</p> <p>Okay, then for the last few weeks is the practical application. So that would be different recipes... I can give a lot of resources to you of where you can find breakfast and dinner... affordable recipes, snacks, even lunch box ideas for the parents. I know that they requested a lot of that. Just to give them some ideas. We can include a lot of images in there too. I think. Can we? Ya that is all of it.</p>	<p>WhatsApp messages related to nutrition week 22- sustaining healthy eating habits</p> <p>WhatsApp messages related to nutrition week 23- end- practical advice</p>
Researcher 1	<p>Excellent! I think those are great ideas you have and we are so happy you can guide us I think I will learn a lot from this too...</p>	
Researcher 6	<p>Ha yes, it is a very exciting concept actually, so I must just <u>send every weekend?</u></p>	<p>Messages sent by researchers every weekend</p>
Researcher 2	<p>Yes so, we will send you S number and you just have to <u>send the information we can help with the format and what not but just the information because you are the expert, the nutrition expert here!</u></p>	<p>S likely to format messages, sent every Sunday</p>
Researcher 6	<p>Good this will work fine</p>	
Researcher 2	<p>I think we will go next because we want to do the <u>psychosocial wellbeing on Wednesdays?</u> Yes okay let me get my notes a second-</p> <p>Okay you so we are doing psychosocial well-being between the two of us. We've come up with a few ideas of what we can include in the messages. <u>So our first one is obviously going to be the introduction which I think I will talk about for us?</u></p>	<p>WhatsApp messages related to psychosocial wellbeing – every Wednesday</p> <p>Introducing messages to parents, Wednesday</p>

	<p>Yes. Okay. So the introduction is just going to introduce the parents to the messages. But we will type that out and send... <b>It will just be a brief introduction and rules like we said</b>... so I can go on.</p> <p>Okay, <b>the development of a child in different phases so</b>, you know child goes through different stages of development as they grow up. <b>I don't know if we are going to have different age groups on the WhatsApp groups?</b> If it is, then we can talk about that the development specific to those age groups. But if not, then we just gave an <b>overall look at what the child should be going through in that particular phase</b> so junior or senior as they grow up. What should they be feeling emotionally or physically... what to look out for in those stages.</p> <p>Okay, and then going with that in the next week is <b>when to take my child to a professional</b>, so advice on when a child should go to a <b>doctor or a psychologist or even to the dentist</b> and when it's time to take your child somewhere and get taken for a check-up. Okay, so that would be I think week 3?</p> <p>So we had this topic... <b>managing alternative family types</b>. So that is to do with you know, it's a 21st century thing, the <b>different kind of families we have</b>. <b>We have divorced parents. We have same-sex parents. We have some children living with just one parent and another parent on the weekends</b>. Just <b>giving parents advice on how to manage this and how to deal with conflict that may arise and these different family types</b>.</p>	<p>Introducing messages to parents</p> <p>WhatsApp messages related to psychosocial wellbeing week 2- development</p> <p>Logistics of WhatsApp, possibly different groups for each age group at school</p> <p>WhatsApp messages related to psychosocial wellbeing week 3- when to take child to a professional</p> <p>WhatsApp messages related to psychosocial wellbeing week 4- alternative family types</p> <p>Guidance for parents</p>
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	<p>Then another one, <b>communicating with my child</b>. So that was something that the parents requested quite often. <b>Just knowing what to say to your child when they are feeling this and that way. Tips on what to say to children and just tips on how to communicate with them better</b>, because you know, our children are always on their phones these days so tips on how to make them more involved.</p> <p>Okay, then <b>parenting styles</b>. So, you know, we have the different types of parenting styles – <b>authoritative, permissive, uninvolved... what is the other one? Yes authoritarian</b>. Just talking about those different styles may be asking the parents what style they fit best and seeing if it is the right style for their children.</p> <p>Then that goes with that is <b>different ways that you can discipline your children...</b> the structure that they have at home. Why discipline is good or why it's sometimes not good... when it's right to discipline. I need help with that one...</p> <p>Then the next one <b>loving my child in different ways</b>. So it's not just the typical always hugging children. You can be other things can <b>be leaving a note in the lunch box. It can be praising your child for doing well in a test</b>. It's not always what parents think just typical affection. There are so many ways you can show a child love.</p> <p>Then if we speak <b>about spending quality time together</b> that is with their family and with their children. So <b>if we even just give some examples of</b></p>	<p>WhatsApp messages related to psychosocial wellbeing week 5-communicating with child</p> <p>WhatsApp messages related to psychosocial wellbeing week 6-parenting styles</p> <p>WhatsApp messages related to psychosocial wellbeing week 7-disciplining child</p> <p>WhatsApp messages related to psychosocial wellbeing week 8-loving my child in different ways</p> <p>WhatsApp messages related to psychosocial wellbeing week 9-quality time</p> <p>Examples</p>
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	<p>places you can go in South Africa. Or if it's at home if it's playing board games if it's going outside, if it's gardening just some ideas for spending quality time together is a big one.</p> <p>Ok this one is important... coping with my own stress. So that's ideas more for the parents on how to deal with the stress of just everyday life and having a family, give them techniques to help overcome the stress and we need to know if they really need to go and see someone with help.</p> <p>Okay, then we move on to this. Over the next five weeks different themes in supporting my child. So the first one is with school work then when they are bullied when they are depressed when they are anxious and when they are misbehaving so this is just various tips and how to support your child with these things. Like if we look at the one when there are bullied like what to do when the child is in school he comes up to you and he says that he's being bullied what possibly can happen.</p> <p>Then looking towards a good future. So planning future goals for the child and that also goes on to financial planning which is next topic and maybe some resources we can give the parents in motivating my child to succeed in life, identifying and accessing resources. So where can you find information on things like universities.</p> <p>If we go into the practical application, so those are going to be all sorts of family activities. We had a few</p>	<p>WhatsApp messages related to psychosocial wellbeing week 10 coping with my own stress</p> <p>WhatsApp messages related to psychosocial wellbeing week 11-16- supporting my child with ...</p> <p>Example supporting child when bullied</p> <p>WhatsApp messages related to psychosocial wellbeing week 17-20- looking toward the future</p> <p>Importance of providing resources for parents</p> <p>WhatsApp messages related to psychosocial wellbeing week 21-</p>
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	<p>ideas, but we can change them. <b>So getting to know each other, relating to each other speaking to each other, mindfulness, training together, cooking together and having fun.</b> Okay, but those are just the rough ideas that we might change them. But that's what we think. We are going to have a broad overview for each week. And then obviously we will see in those messages every Sunday night... <b>will send them on Wednesdays.</b> Okay. I think that's all from our side if we look at the psychosocial well-being aspects?</p>	<p>end- practical activities</p> <p>Structure of messages, psychosocial wellbeing on Wednesday</p>
<p>Researcher 1</p>	<p>Thank you. I think it's I think it's a very exciting concept. I really do. I think this is going to work well with the parents.</p>	
<p>Researcher 4</p>	<p>Its great it's really needed... I wish had this when I was younger you know.</p>	
<p>Researcher 2</p>	<p>Ha yes you know it would help us a lot now we just ask Uncle Google. But he is not always right... now we have the experts! Can we do physical fitness next that is the last one then we can wrap up?</p>	
<p>Researcher 5</p>	<p>Yes, you know this is very exciting. I really liked the ideas that you all have so far and I thank you for sharing them, it's actually quite inspiring to me. So I'm not going to spend too much time on mine really. I think a lot of mine is <b>going to be practical advice in the physical fitness field.</b></p> <p>So here that the parents really want <b>concrete information on physical fitness and what they should or should not be doing.</b></p> <p>So we are starting with the <b>three components to well-being, physical, social and mental.</b> That will give the</p>	<p>WhatsApp messages related to physical fitness-practical advice</p> <p>Need for concrete, practical information</p>

	<p>parents an overview of everything I think it's important to send that in the first week. Because wellbeing is not just one field you know... it made of different components. And you need balance. So it is important to first speak about that before going straight into physical.</p> <p>Then for the next few weeks we are looking at different types of agility. Agility is a whole-body movement, a very fast whole-body movement. So I can discuss the importance of agility in fitness, how to improve agility and so forth.</p> <p>Then the next few weeks we talk about the health related fitness index the skill-related fitness index. So health related fitness is broken into 6 parts. There is the body mass index, heart rate, flexibility, cardio-respiratory endurance, muscle endurance, circumference's and anaerobic capacity. Yes, I know it's a mouthful... I think If each week I discuss each of these in parent friendly language I can give the parents good guidance on each concept. With some practical exercises to improve them.</p> <p>Then with skill related fitness there are only 6 components. So that is the next 6 weeks. That is broken into agility, balance, coordination, power, reaction time, and speed. Also giving examples of these and how to improve each of them. I will include pictures too...make it easy to understand.</p> <p>So that will already bring us to week 13 or 14, then the next topic is performance markers. Okay, sleep and mood state, hydration and energy levels, body</p>	<p>WhatsApp messages related to physical fitness-Week 1, 3 components of wellbeing</p> <p>WhatsApp messages related to physical fitness-Week 2- 5, agility</p> <p>WhatsApp messages related to physical fitness-Week 6-13, Health related and skill related fitness</p> <p>Skill related fitness- 6 weeks</p> <p>WhatsApp messages related to physical fitness-week 14- 20 -</p>
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	<p>weight. And heart rate and then wellness and then performance. Okay, and with this we're looking at the central nervous system, muscle fibers.</p> <p>And to finish we have the practical application and I we have the Win-Life home gym. So if we're going to give examples of that with the warm up and a cool down then if we do something with the cardio, resistance, visual skills, bodyweight exercises and flexibility and stretching, you know, I think that fitness is very important aspect of this and I think I can really give the parents the information that they need on this. And I think I'll see if I can include a lot of images in this as well.</p>	<p>performance markers</p> <p>Practical application week 21-26</p> <p>Images in fitness messages</p>
<p>Researcher 1</p>	<p>We really are so grateful for this. We thank you for sharing your expertise. I think these ideas are fantastic. I like each of the headings and the subtopics and we really wish you the best of luck in typing these messages and we thank you again for just being able to share this with us. Do we have any further questions? *Meeting end*</p>	

## APPENDIX E - TRANSCRIBED AND CODED PRA-MATRICES

Table E-1: Transcribed and coded “Guidelines when using the following modes of delivery” poster of PRA workshop 1	
GUIDELINES WHEN USING THE FOLLOWING MODES OF DELIVERY	
Poster 1	
<p><i>Parent evenings</i></p> <p><i>How?</i></p> <p>-Parent-teacher evenings per phase</p> <p>-Indicate importance</p> <p>- Can indicate a topic or keep it vague</p> <p><i>When?</i></p> <p>-At school</p> <p>-More than once</p>	<p>Alternative modes of delivery</p>
<p><i>Mobile communication</i></p> <p><i>How?</i></p> <p>-SMS confirmation</p> <p><i>When?</i></p> <p>-Before the letter goes out</p>	<p>Mobile devices</p> <p>Alternative modes of delivery</p>
<p><i>Emails</i></p> <p><i>How?</i></p> <p>-Create database for project and send email to participants</p> <p><i>When?</i></p> <p>-Later on</p> <p>- If feasible</p> <p>-Only those who have email</p>	<p>Alternative modes of delivery</p> <p>Web-based delivery</p> <p>Not all parents have email</p>



<p><i>Information Letter</i></p> <p><i>How?</i></p> <ul style="list-style-type: none"> <li>-Starting point of communication</li> <li>-Importance</li> <li>-RSVP</li> <li>-Positive incentive</li> </ul> <p><i>When?</i></p> <ul style="list-style-type: none"> <li>-After SMS</li> <li>-Before project starts</li> </ul>	<p>Letter as alternative mode of delivery</p> <p>NB: incentive for information letter</p>
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**Table E-2: Transcribed and coded “Modes of Delivery” poster of PRA workshop 1**

Modes of Delivery	
Poster 2	
<p><i>Letters</i></p> <ul style="list-style-type: none"> <li>-Logistics: Quarterly/monthly</li> <li>-Content: Nutritional or exercise</li> </ul> <p>Negative:</p> <ul style="list-style-type: none"> <li>-Can be lost</li> <li>-Slow</li> </ul>	<p>Alternative modes of delivery-letter</p> <p>Alternative modes of delivery- cons of letter</p>
<p><i>Mobile (WhatsApp)</i></p> <ul style="list-style-type: none"> <li>-Support</li> </ul> <p>-Negative:</p> <ul style="list-style-type: none"> <li>-Data cost</li> <li>-Network</li> <li>-Change of numbers</li> </ul> <ul style="list-style-type: none"> <li>-Positive</li> </ul>	<p>Mobile devices-support for</p> <p>Potential challenges of mobile devices</p>

<ul style="list-style-type: none"> <li>-Immediate info.</li> <li>-Always available</li> <li>-Convenient</li> <li>-Easy and trusted</li>   <li>-Content:</li> <li>-Recipes</li> <li>-Dietary information</li> <li>-Wellbeing</li> <li>-Short</li> <li>-Not videos</li> <li>-Health</li> </ul>	<p>Positives of mobile devices</p>       <p>Nutrition content</p>   <p>WhatsApp group logistics</p>
<p><b>Table E-3: Transcribed and coded “Potential content” poster of PRA workshop 1</b></p>	
<p><b>Potential content</b></p>	
<p><b>Poster 3</b></p>	
<p><i>Nutrition:</i></p> <ul style="list-style-type: none"> <li>-Knowledge</li> <li>-Link with cognitive development</li> <li>-Importance of types of food</li> <li>-Parent responsibility</li> <li>-Example experiments</li>   <li><i>Physical Fitness</i></li> <li>-Motivational levels: internal/external</li> <li>-Encouragement</li> <li>-Link with cognitive development</li> <li>-Enjoyment</li> <li>-Integrate physical activities in daily routine</li>   <li><i>Psychosocial wellbeing</i></li> <li>-Change management</li> <li>-Motivational levels</li> <li>-Parent responsibility for child’s needs</li> </ul>	<p>Nutrition-based content</p>    <p>Examples</p>           <p>Physical fitness content</p>    <p>Psychosocial wellbeing content</p>

<ul style="list-style-type: none"> <li>-Family time</li> <li>-Comic strip/ infographic</li> <li>-Striking a balance</li> <li>-Personal organizational skills</li> <li>-Energy!</li> </ul>	<p>Examples</p>
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**Table E-4: Transcribed and coded “Physical Fitness” poster of PRA workshop 1**

<p><b>Physical Fitness</b></p>	
<p><b>Poster 4</b></p>	
<p><i>Topics/themes</i></p> <ul style="list-style-type: none"> <li>What causes movement?</li> <li>-What is physical fitness?</li> <li>-Health related fitness</li> <li>-Skill related fitness</li> <li>-Brain fitness and neuroplasticity</li> <li>-Performance and health</li> <li>-Win-LIFE home gym</li> </ul> <p><i>Number of messages</i></p> <p>+/- 26 messages</p> <p>(26 weeks)</p>	<p>Physical fitness content</p> <p>Practical examples- Home gym</p> <p>WhatsApp group logistics</p>

**Table E-5: Transcribed and coded “Physical Fitness” poster 2 of PRA workshop 1**

<p><b>Physical Fitness 2</b></p>	
<p><b>Poster 5</b></p>	
<ul style="list-style-type: none"> <li>-What causes movement</li> <li>-Stimulus from the brain</li> <li>-Energy</li> <li>-Lever systems (muscles etc.)</li> <li>-Fitness</li> <li>-Change your mind</li> <li>-Train your brain</li> <li>-Heal your heat</li> </ul>	<p>Physical fitness content</p> <p>Motivation and reasons for exercise</p>

<ul style="list-style-type: none"> <li>-Home gym</li> <li>-Body weight exercises</li> <li>-Warm up</li> <li>-Work out</li> </ul> <ul style="list-style-type: none"> <li>Motivation</li> <li>-Neuroplasticity</li> <li>-Set goals</li> <li>-Recognize triggers</li> <li>-Conscious decisions</li> <li>-Rewards: words/actions/small and tangible</li> </ul> <ul style="list-style-type: none"> <li>-Health related fitness and general info</li> <li>-Muscular strength</li> <li>-Muscular endurance</li> <li>-Body composition</li> <li>-Muscular endurance</li> <li>-Cardio respiratory fitness</li> </ul>	<p>Practical examples</p> <p>How to stay motivated</p> <p>Types of fitness</p>
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**Table E-6: Transcribed and coded “Nutrition” poster of PRA workshop 1**

<b>Nutrition</b>	
<b>Poster 6</b>	
<i>Number of messages</i> <ul style="list-style-type: none"> <li>-26</li> </ul> <i>Format</i> <ul style="list-style-type: none"> <li>-700 characters</li> <li>-Tyd tot tyd</li> <li>-Opsomming/herhaling van boodskap</li> <li>-Inforgrams...</li> </ul>	<p>WhatsApp group logistics</p> <p>Nutrition content</p>

**Table E-7: Transcribed and coded “Nutrition 2” poster of PRA workshop 1**

<b>Nutrition 2</b>	
<b>Poster 7</b>	
<ul style="list-style-type: none"> <li>1) Parents responsibility- optimal feeding of children</li> </ul>	Nutrition content

<p>Bodyweight</p> <p>2) Special needs- allergies/blood type/ heart disease/ NCDSs</p> <p>3) Choices: Product/ Portion size/ Price/preparation/ Preservation</p> <p>Affordability- healthy practices</p> <p>Lunch box</p> <p>Meal planning</p> <p>Breakfast</p> <p>4) FBDG- what? How much?</p> <p>Tools- practical guidelines</p> <p>Choices</p> <p>Why? – bodyweight/ blood groups</p> <p>5) Recipes: easy</p> <p>Quick</p> <p>Affordable</p> <p>Choices</p> <p>Pros and cons of purchased food</p> <p>Healthy practices</p> <p>What? Choices</p> <p>Why?</p> <p>How to prepare?</p> <p>Frequency?</p> <p>Home prepared vs. fast foods</p>	<p>Special diets</p> <p>The 5 P’s</p> <p>Meal planning</p> <p>FBDG</p> <p>Recipes- practical examples</p>
<p><b>Table E-8: Transcribed and coded “Psychosocial wellbeing” poster of PRA workshop 1</b></p>	
<p><b>Psychosocial wellbeing</b></p>	
<p><b>Poster 8</b></p>	
<p><i>Topics/Themes:</i></p> <p>-Building a future for my child</p> <p>- financial</p> <p>-School work</p> <p>-Mobilising resources</p>	<p>Psychosocial wellbeing content</p> <p>Supporting child</p>

<p>-Scholarships</p> <p>-Point to resources/linking</p> <p>Recognising when a child is in distress</p> <p>-Bullying</p> <p>-Depression</p> <p>-Misbehaviour</p> <p>-Communication</p> <p>-Emotional connection</p> <p>Normative development</p> <p>-Social/emotional/developmental milestones/psychosexual...etc.</p> <p>Healthy family dynamics</p> <p>-Discipline</p> <p>-Parent support</p> <p>-Balance</p> <p>-Quality time</p> <p>-Attention</p> <p><i>Format</i></p> <p>-Contact sessions toward end</p> <p>-Build networks/connect</p> <p>-Pamphlets- longer, more practical, round up</p> <p>-Reminder in WhatsApp- might not lose?</p>	<p>Resources!</p> <p>Helping child</p> <p>Communicating with child</p> <p>Parenting and discipline</p> <p>Ideas for quality time</p> <p>Alternative modes of delivery</p> <p>Parent contact sessions</p> <p>Pamphlets</p>
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## APPENDIX F - REFLECTIVE JOURNAL

<p><b>Monday 11<sup>th</sup> March 2019</b></p> <p><b>PRA Session with University Experts</b></p> <p><u>The first round of data collection using PRA workshops. I felt privileged to be surrounded by experts in fields on nutrition, physical fitness, psychosocial wellbeing and education. These individuals are experts in their fields and I really want to reflect on the respect I felt for them and my gratitude for having them participate in this workshop. We were given a background of the project and the experiences and results thus far. I have a strong personal interest in health promotion and I thoroughly enjoyed learning more from the experts. I realise the importance of PRA workshop and the need to create a collaborative atmosphere where the participants are heard and understood.</u></p> <p>I <u>remained aware of the possibility of my personal bias impacting my perceptions at the start of the project and I ensured I reflected back on this throughout.</u></p> <p>Some ideas of my own biases which may affect my views of the researcher's ideas:</p> <p>I come from a middle class family in an urban household and fitness and nutrition has always been a big part of my life. I must be aware <u>that my own views of fitness and nutrition will be different to the parents who took part in the study.</u></p> <p>Is my inexperience as a researcher noticeable? I need to maintain professionalism in order <u>to enhance the participants sense of trust in me-I am first language English but many of the researchers are first language Afrikaans. Will this language barrier impact rapport building or my interpretation of their recommendations?</u></p>	<p>PRA workshop 1</p> <p>PRA participants-research experts</p> <p>Baseline data information</p> <p>Importance of maintaining my role as a researcher</p> <p>Constant reflection</p> <p>Impact of my own personal standing</p> <p>Importance of reflecting in order to avoid mistranslation</p>
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Presentation by Researcher 1:

The student who conducted phase 1 of the project last year started the meeting by introducing the Winlife project. It started in 2011 (and worked within three disciplines; nutrition, food, and well-being. K spoke of how the teachers did not always implement the enriched curriculum for Win-Life effectively. The children however became more aware of their health and it became clear that the parents needed guidance.

K stated that they want to start sending messages to our parent participants in early May. There were some questions about the use of WhatsApp- general housekeeping rules, limitations on group size etc. I have worked with WhatsApp groups before so I feel quite confident but I will need to be strict with boundaries and lay important ground rules. I will switch the group settings to “admin only” and request feedback privately so that the group doesn’t get too busy. I will need to continuously reflect and change topics etc. when needed.

A explained her data collection from November last year. I was very surprised at how little the parents actually know about nutrition and fitness. They really want to know WHY we have to do these things. Will it help them? Will it benefit them? Etc. I think the WhatsApp messages should be very straightforward and easy to understand but also provide concrete info explaining WHY certain things are important. They want trusted sources of information; online stuff is so ambiguous. Their knowledge of exercise seems limited. They only really spoke about running and walking. They might enjoy home-made gyms or maybe park runs.

Problems with previous mode of delivery  
Need for parent guidance

WhatsApp Guidelines  
Need to ensure that I do not allow parents to overstep boundaries

Importance of reflecting often  
Baseline data- needs of parents  
Parents want easy-to-understand information

Links for parents

Ideas for physical fitness



<p>The researchers were all extremely knowledgeable and I felt quite honored to be in a room with them and all their expertise. A told us more about her experience with the parents last year. I <u>was encouraged at the fact that many of them seemed excited about a parent guidance intervention</u> and had some fantastic ideas for the contents the major theme seemed to be around nutrition physical fitness and psychosocial or emotional well-being.</p>	<p>Parents feel excited about intervention</p>
<p>I was a little shocked at how little the parents seem to know. About nutrition in particular. <u>They seem to really want to nourish their family, but did not understand portion sizes and had a very generic view of what was healthy and what was unhealthy.</u> In terms of physical fitness. I was also shocked to hear that many of the parents did not understand the reason behind exercise. <u>I think that if we are able to explain the scientific importance of exercise that we might be able to encourage the parents</u> and perhaps the we can give <u>them ideas about exercising as a family that could help too.</u></p>	<p>Ideas for nutrition-related content</p> <p>Physical fitness related content</p>
<p>In terms of Psychosocial well-being, I was quite inspired by how the parents really seem to want <u>to support their children and create a good future for them.</u> I was touched at the one story about a parent who said that her child was very good at soccer, but she didn't know how to support him in this way to go and wanted advice about <u>scholarships</u> and so forth.</p>	<p>Psychosocial wellbeing content</p>
<p>So I think it would be important to give the parents resources as to how they can help their children in the future because these kinds of things are very difficult <u>to find So perhaps we could mobilize resources for them</u> and help him with this. I'm quite excited about creating the WhatsApp groups and sending out the messages.</p>	<p>Mobilisation of resources for parents</p>

I explained the process with the posters and that each pair of researchers would give information about their topic of expertise. We spent about an hour filling in the posters.

The nutritional experts suggested that we use a lot of practical guidelines for the parents and they also spoke about the need to speak to take their culture and socioeconomic background into account.

Whereas in the middle class or upper-class families, you would talk about buying food from Woolworths. These parents don't have the luxury of a of going to a Woolworths so they would need to have options for cheaper food or food that is available in their areas.

Then the fitness experts spoke about their poster and I was really inspired. They had a lot of information on how to help the parents really learn about the value of fitness. The student from last year said that most of the parents didn't really understand why they had to exercise. So I think giving them a bit of background about the importance of exercise would be really beneficial.

And then for psychosocial well-being myself and Sadi and Alice presented. The parents wanted information about how to support their children and how to speak to their children in particular because they really struggled with that and didn't know how to make emotional connections with their children. Parents really wanted to know if their children were developing age appropriately too. They wanted to make sure that everything was "okay" or "on track". So having guidelines to follow regarding developmental milestones would be hugely beneficial for the parents.

We also spoke about managing WhatsApp groups. Because I've managed a few WhatsApp groups in the past, I had quite a lot of information on this. I did suggest that in the group's we make it so that only the admin can send messages. Otherwise the groups might

Need to take cultural differences of parents into account when developing content

Physical fitness content

Parents struggle with child-parent communication

Recognising red flags

Feel confident about managing WhatsApp groups

become a bit busy- people might try chatting on the group's late at night and posting adverts so I suggested that only the admin be able to send messages and the researchers agreed with this. We also said that we would send out rules to the parents who are participating before we start with the intervention.

It was decided we would send out three messages a week for a period of 26 weeks. We don't want to overwhelm the parents with messages and information. So we should use short and sweet messages- three messages a week should be enough. And then in terms of the structure of the messages it was suggested that on a Monday we should start we should be the day for nutrition related messages because after we can most parents went to start fresh and it's a good way to set the tone for the rest of the week. Wednesday would be psychosocial well-being and Friday would be physical fitness, so that would More practical things inclusion of the gym and then we do that every week. The researchers would send me their messages for the week on the Sunday or maybe even the day before and then I would send it out to the parents at a time that is good for them. Not like in the early hours of the morning or late at night.

Then we suggested sending out a questionnaire in the middle of the project just to get some insight and some feedback as to how it's going and then at the end we'd send out a final questionnaire.

We'd be using WhatsApp to send the messages. WhatsApp is reliable and very easy to use, it allows users to create groups for sending out information and although it does require data it is still cost effective and easy to navigate compared to other mobile applications – in addition the majority (if not all) parents will already have WhatsApp installed on their mobile devices as it is the most popular messenger application in south Africa.

WhatsApp guidelines

Ideas for message structure and content

Important to determine a good time for messages

Ways of getting feedback from parents

WhatsApp as a mode of delivery

Benefits of WhatsApp

WhatsApp is very fast and efficient and it only really uses data if you send pictures and videos, so we shouldn't see any videos to the parents, but perhaps we could say in pictures of recipes and such a few times a month because some of the parents were concerned about data use. But WhatsApp really isn't expensive so hopefully the parents will be okay with the messages that we send. But of course, they will have the option to leave the group any time. Although we do hope this doesn't happen because they want we want them to participate in the intervention.

In terms of managing the WhatsApp groups the researchers necessitated that it would be important to ensure that the participants felt safe and comfortable on the groups and we're able to leave the groups should they wish to do so. It was suggested that maybe there should be four separate WhatsApp groups to for each School. This would ensure that appropriate information went to each group and that the groups and not become too busy.

A list of rules would go after the participants before the intervention commences in order to ensure that they are safe and comfortable and that they know that they can leave the group at any time. Only the admin should be able to send messages. This will prevent parents from sending messages late at night or early in the morning and disturbing other participants. A database of the participants would also be created. Groups would be formed based on the age of the participants children.

Parents requested that information be sent out frequently in order to ensure their sustained interest in the study. As such it was decided that three messages would be sent out to week. It would be important that the admin send these messages on a timely manner. And an appropriate time of day.

No videos- too much data

Important to allow parents to leave is possible

Groups on WhatsApp

WhatsApp guidelines  
Incentives for intervention

**29 May, 2019**

**Packing bags for the learners**

Today we packed the bags for the children that we are going to hand out with the information later. I hope that this will be a good incentive for them to remind them to give the parents the later and encourage the parents to participate in the intervention. I know that having something physical to take home along with the later my prevented from being lost which I'm sure has happened in the past.

Each of the children are getting a bag which is sponsored by Multotech as well as a key ring a fruit stick. And then of course the letter, the letter is going to explain what is happening in the parent guidance intervention and it will ask parents to send a message to my number so that I can create a database and form the WhatsApp groups. I'm going to create four groups for the parents. Each school will have two groups. The foundation phase parents were form one group and the senior phase parents will go into another group. The idea is to send information relevant to eat each age group, but this might not be feasible. But keeping the group smaller is better in order to keep admin easier.

Incentives

Information letter

Logistics of WhatsApp

Smaller groups= easier to manage

**3 June, 2019**

**School presentations- School A**

We arrived at School A and we were greeted by the very friendly principal and the secretary. They took us to the school hall where we set up for our presentation. We were told that we would be seeing the students in groups because otherwise they would be too many of them. We'd see the Grade 1-3 learners first, then the grade 4 and 5, and finally the grade 6 and 7. The teachers came and they sat all the children down in the hall. The children seemed very excited, I was dressed in a superhero outfit so I got a lot of stares! They were all quiet and they listened to their teachers nicely. There seemed to be a

Perception of the school, children and staff

lot of discipline and the learners respected each other and their teachers. They greeted us as they walked in too.

Once everyone was seated, we started the presentation. I went on stage dressed in a superhero outfit (was very nervous!). I had a script that I was going to say to the children just to **get them excited about the intervention.** I asked questions like **who ate a chocolate this weekend and who went for a walk outside this weekend and who played video games this weekend? I found the younger grades were more enthusiastic.** They answered all my questions- the older children were not as excitable!

A lot of the children said that they do not exercise over the weekend which was concerning and many of them said that they ate junk food. Specifically, when I spoke about McDonald's they became very excited. They definitely know what McDonald's is, but when I spoke about eating apple or healthy food not many of them put up their hands, especially in the older grades... they didn't seem too interested in the apple question!

I really wanted to try and encourage the children to take the letter home and give it to their parents. **And to do this I had to act VERY excited and tell the learners how “cool” this new intervention for the parents would be.** I also wanted to get more information on whether their parents were using mobile devices at home. I asked questions about whether they see their parents on the phone often or whether they think their parents would want to join this club (which I so called it) to get information about how to be healthy or how to support their children. **It was clearly evident that ALL the children’s parents have cellphones and are on them quite frequently.**

The younger children were far more enthusiastic and they say they parents would definitely want to join. They were very excited about

Purpose= get children to give letter to parents

Questions asked to children

Excite children!  
 Importance of first meeting in starting the intervention

Mobile devices most popular

<p><u>the incentive which was the bag and the fruit stick and the key ring.</u></p> <p>At the end we handed out the bags to them and they were very polite they waited in a line. They listened really well to their teachers and lots of them thanked us for the presentation. One of the learners came to me afterwards and said <i>“I will give the letter as soon as I get home”</i> and <i>“I hope my mom signs up.”</i> I was thrilled. Another however told me <i>“My mom never reads these letter”</i> and encouraged him to read it with his mom. Another learner said to one of my colleagues: <i>“My mom is always on her phone, she will join this club.”</i></p>	<p>Incentive importance</p>
<p>Afterwards, we spoke to the principle again and he thanked us for being with him. He said that he would send out an email to the parents just to remind them that a letter would be going home. <b>But he did warn us that parent participation was poor at the school.</b> He said that we might not get many responses but that he would try and follow up on it and he would ask the teachers to remind the children. <b>We hope that the incentive might help remind the children, but we were aware of the potential limitations of parent involvement, especially at under resourced school.</b></p>	<p>Parent meetings probably not a good idea</p> <p>Importance of incentive</p>
<p><b>10 June 2019</b></p> <p><b>Presentation at School B</b></p> <p>I had a very similar experience when I presented at School B a week later. It was nearly exactly the same as School A <u>in terms of the younger children being more enthusiastic</u>, more willing to participate and probably more likely to take the letter home to their parents. The older children did not seem very interested. <u>So perhaps something for future reference would be to change the presentation for the older children or perhaps even change the incentive to something that would interest them.</u></p> <p>I was also quite surprised when I arrived at School B because <b>I saw a lot of the children eating chips while sitting outside.</b></p>	<p>Younger children more interested</p> <p>Future interventions, greater interest for older children</p>

<p>One of them was drinking a Red Bull and I thought... oh dear... they really need some guidance on what they are eating. I just really hope that the parents sign up for this intervention because I think it could be really beneficial for them. Then I also realized that these parents probably work long hours and they don't have time to make their children lunches. So their children might just take whatever's in the fridge or perhaps they get money to buy things from the garage on the way to school. <b>So, I thought that ideas for lunch boxes would be a great message to send out on the intervention.</b></p> <p>Reflecting back I really felt privileged at being able to present in front of the learners at these schools. It was a great learning experience and I thought the learners were so polite and I really appreciated their enthusiasm. I am looking forward to responses from the parents and I hope many of them sign up!</p>	<p>Parent need for nutrition related guidance</p> <p>Parent need for nutrition related guidance</p>
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## APPENDIX G - FIELD NOTES

- *My field notes of PRA-Based Workshop 1*
- *My field notes of PRA-Based Workshop 2*
- *My field notes of School A and School B's presentations*

### My Field notes of PRA-Based Workshop 1

<b>Date</b>	<b>19 March 2019</b>
<b>Event</b>	<b>PRA Workshop 1</b>
<b>Place of workshop</b>	<b>Pretoria</b>
<b>Number of participants</b>	<b>7</b>

<ul style="list-style-type: none"> <li>• I arrived at the meeting early to set up</li> <li>• The researchers all arrived shortly after then introduced themselves.</li> <li>• The first researcher started by explaining the purpose of the meeting.</li> <li>• She <u>went over an overview of the previous and current phases of the project.</u></li> <li>• She spoke about the <u>previous project and how it all started.</u></li> <li>• Discussed the outcomes of the day</li> <li>• Previously there were two community engagement projects undertaken by the University of Pretoria since 2015</li> <li>• These ongoing projects involve school-based intervention research with <u>social change and development as a potential outcome.</u></li> <li>• The aim of these interventions was centered on <u>general health and well-being in the poor communities</u> and to address <u>nutrition related practices physical health and social emotional functioning.</u></li> </ul>	<p>Phase 2 of project-parent guidance</p> <p>Nutrition guidance in resource constrained communities</p> <p>Outcome of projects</p> <p>Low-income</p> <p>Three areas of functioning</p>
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<ul style="list-style-type: none"> <li>• The setting for both projects was <u>in primary schools in Gauteng accommodating children from poorer backgrounds.</u></li> <li>• One of the findings was that all groups of <u>participants had a strong need for additional parent guidance.</u></li> <li>• The researcher who conducted stage one of the projects then discussed her data from her project.</li> <li>• She reached out to the parents to attend the workshops and knew that they wanted more guidance.</li> <li>• She asked them what they needed guidance on and how they should do it.</li> <li>• Said that the parents really wanted trusted sources of information and deeper knowledge and understanding</li> <li>• Motivating children to eat healthier</li> <li>• In terms of exercise -why it is important, what type is best for me, how much and how often, weightlifting</li> <li>• What they know is limited to running walking and weightlifting</li> <li>• Sticking to a routine as a problem</li> <li>• In terms of supporting my child the <u>parents really want the best for their children</u></li> <li>• looking into the future, homework, financial support, and planning scholarships</li> <li>• Connecting with child on deeper level</li> <li>• Red flags what is not okay?</li> <li>• Bullying and depression</li> <li>• Need reassurance, how to discipline child effectively, building self-esteem awareness, emotional regulation, perseverance, interpersonal skills, respect towards elders</li> <li>• Modes of delivery would be letters, information pamphlets, parent evenings and the phone</li> <li>• Very responsive to the phone.</li> </ul>	<p>Setting</p> <p>Guidance</p> <p>Use of mobile devices to relay information Nutrition content</p> <p>Physical fitness content</p> <p>Physical fitness content</p> <p>Psychosocial wellbeing content</p> <p>Various modes of delivery</p> <p>Include practical content</p>
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<ul style="list-style-type: none"> <li>• The researchers each discussed their posters</li> <li>• Big emphasis on <b>practical guidelines for each topic</b></li> <li>• <u>Scientific and accurate information from trustworthy sources</u></li> </ul>	<p>Type of content to include- trustworthy</p>
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### My Field notes of PRA-Based Workshop 2

<b>Date</b>	<b>3 April 2019</b>
<b>Event</b>	<b>PRA Workshop 2</b>
<b>Place of workshop</b>	<b>Pretoria</b>
<b>Number of participants</b>	<b>7</b>

<ul style="list-style-type: none"> <li>• <b>Discussion of themes for messages</b></li> <li>• Each researcher had ideas of content for messages</li> <li>• Each asked to discuss content with regard to themes</li> <li>• <b>Brief talk about logistics of WhatsApp, creating groups and how many participants per group</b></li> <li>• <b>Introductory message important as it will set the tone for the rest of the messages</b></li> <li>• <b>Remember to establish WhatsApp ground rules</b></li> <li>• <b>Mondays will be for the nutrition messages</b> because it's the start of the week and a good day for food related content</li> <li>• <b>Wednesday will be psychosocial wellbeing content</b></li> <li>• <b>Friday will be physical fitness related content- Fitness Friday</b></li> </ul>	<p>Message structure, each fall under certain broad theme</p> <p>Max. participants per group, admin, size limits</p> <p>Introducing message to parents</p> <p>Logistics, ground rules</p> <p>Structure of messages, days sent</p>
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<ul style="list-style-type: none"> <li>• Questions about use of images and PDFs, decided on no videos because of excess data usage</li> <li>• Images to reinforce information in messages, charts and diagrams, infographics</li> <li>• Language of messages, plain and simple, remember many of the parents are not first language English speakers</li> <li>• Send google questionnaire at end of intervention to get feedback from parents</li> <li>• Last few weeks of messages all very practical-based, recipes, home workouts and games to play with families</li> </ul>	<p>WhatsApp logistics</p> <p>Easy to read and simple messages</p> <p>Structure of messages</p>
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### My Field notes of School A and School B's presentations

Date	3 <sup>rd</sup> and 10 <sup>th</sup> June 2019
Event	School presentations- handing out information letter
Place of workshop	School A and School B in Pretoria
Participants	Grade 1-7 learners

<p><b>School A:</b></p> <ul style="list-style-type: none"> <li>• Friendly principal and introduction</li> <li>• Set up in hall, learners split into three groups based on grades</li> <li>• Lots of learners sitting outside, some eating junk food and drinking caffeinated drinks</li> <li>• Learners polite and greeted</li> <li>• Strong discipline at school, teachers very strict with learners when they were in the hall</li> <li>• Most learners seemed excited about incentive and the programme, participated and asked questions</li> </ul>	<p>Perception of school</p> <p>Need for nutrition related guidance</p> <p>Teacher displaces at school</p> <p>Positive response to incentive and information letter</p> <p>Absent learners</p>
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<ul style="list-style-type: none"> <li>• Handing out bags was successful, some learners absent, left bags at school for those learners</li> <li>• Principal said <u>he would send email reminder to parents to send back letter</u></li> <li>• Reiterated that parent participation is poor at school</li> </ul>	<p>Poor parent participation</p>
<p><b>School B:</b></p>	
<ul style="list-style-type: none"> <li>• Presented to first group of learners in their classroom</li> <li>• Younger learners very enthusiastic</li> </ul>	<p>Future interventions possible need for different incentive for older children</p>
<ul style="list-style-type: none"> <li>• All seemed confident in <u>English, language of learning and instruction</u></li> </ul>	<p>Language of messages</p>
<ul style="list-style-type: none"> <li>• Very polite and engaged well with presentation, asked questions and thanked me for coming</li> </ul>	
<ul style="list-style-type: none"> <li>• Positive response to bags and incentive</li> </ul>	<p>Good response to incentive</p>
<ul style="list-style-type: none"> <li>• Vast majority of learners said their parents use phones often</li> </ul>	<p>Mobile devices as mode of delivery</p>
<ul style="list-style-type: none"> <li>• Many learners said they go for <u>walks on weekends</u></li> </ul>	<p>Positive, parents seem to acknowledge importance of physical activity</p>
<ul style="list-style-type: none"> <li>• Majority of learners said they eat fast food over the weekend</li> </ul>	<p>Fast food, dinner ideas for parents needed</p>

## APPENDIX H - VISUAL DATA

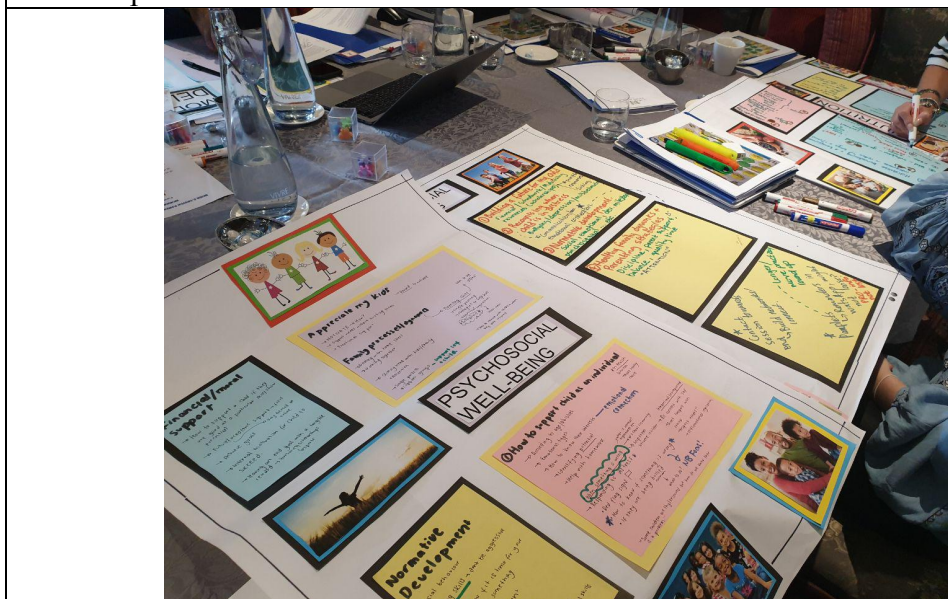
- Table H-1: Photographs taken during PRA-based workshop 1
- Table H-2: Photographs taken during presentation at schools
- Table H-3: Photographs of PRA-matrices, Posters 1-7 (analysed in transcription)

### Table H.1

#### Photographs taken during PRA-based workshop 1



Researchers working collaboratively in order to fill in content on the posters during the PRA workshop.



One of the posters completed during the PRA workshop- this poster is focused on psychosocial well-being content.

**Table H.2**

**Photographs taken during presentations at School A and School B**



Myself and my research colleagues getting ready to present the parent guidance intervention to the learners at School A in Pretoria.



Learners participating in the presentation – here they are pictured raising their hands in response to some of the questions I asked them.



Learners being asked questions related to health and fitness in School B. I dressed as a superhero to excite the younger learners and encourage their interest in the project



Holding up the Mutlotech bag at School A, the bag contained a fruitstick, a keyring, and the letter explaining the parent guidance intervention.





Handing out the bags to the learners at School A. Each learner received a bag.

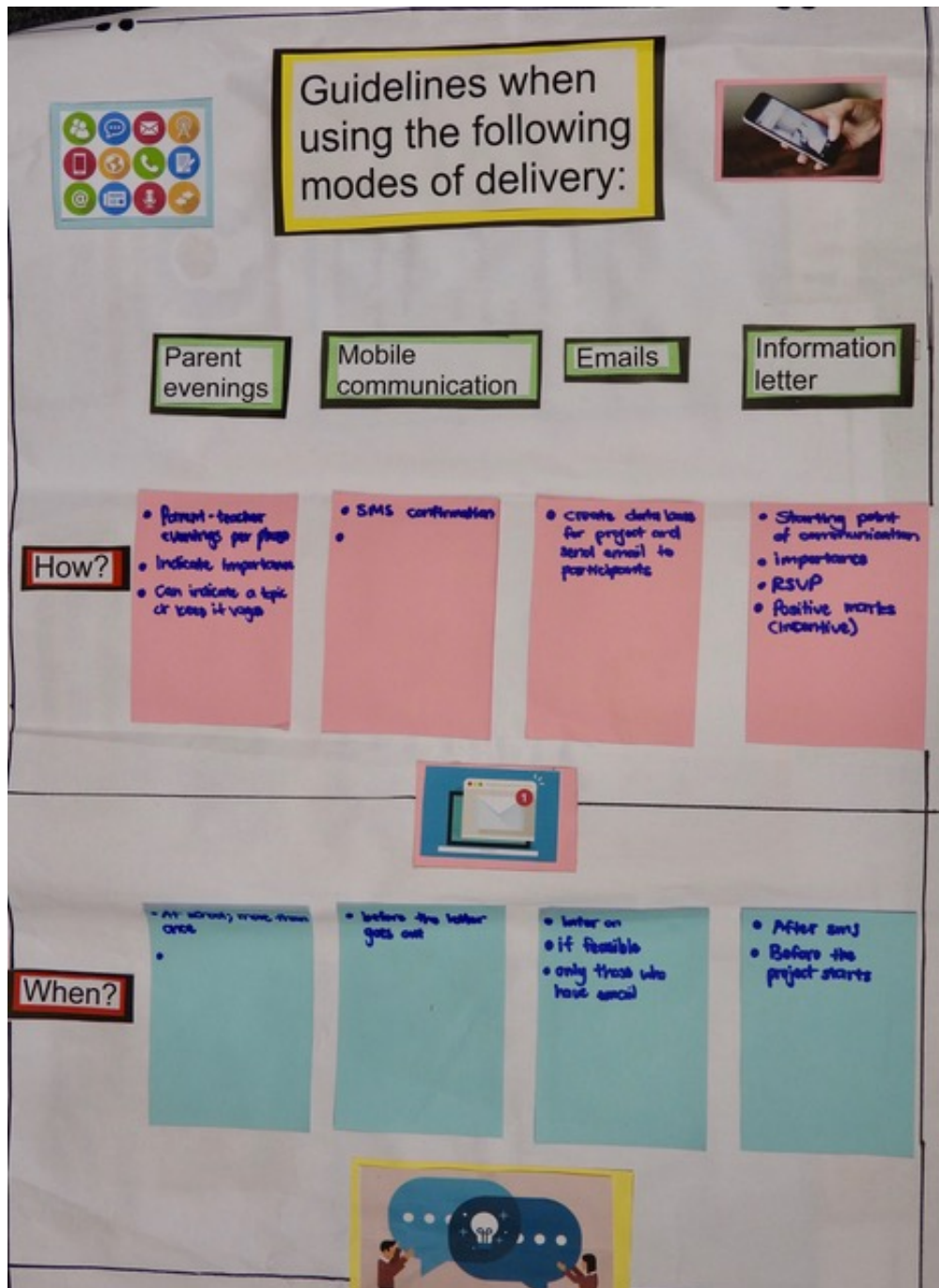


Learners in the hall in School A waiting for the presentation. Learners were divided into three groups.

**Table H-3**


**Photographs of PRA-matrices, Posters 1-7 (analysed in transcription)**

**PRA Workshop 1, Poster 1**




### PRA Workshop 1, Poster 2


#### Nutrition




- Knowledge
- link with cognitive development
- importance of types of food
- Parents responsibility / accountability r/o food
- Example experiments




#### Physical Fitness



- Motivational levels
  - Encouragement
  - internal
  - external
- link with cognitive development
- knowledge of types of exercises to cardio
- Enjoyment
- Integrate physical activities in day-to-day routine




#### Psychosocial Wellbeing



- Change management
- Motivational levels
- Parents responsibility for child's needs
- Family time
- Comic strip / infographic to mascot
- Parental involvement
- Striking a balance
- Personal organisational skills
- Energy!


Impact of technology



### PRA Workshop 1, Poster 3


## MODES OF DELIVERY

#### LETTERS




- Logistics
  - Quickly / Monthly
- Content
  - Nutritional
  - Exercise

Negative	Positive
<ul style="list-style-type: none"> <li>• Can be fast</li> <li>• Slow</li> </ul>	<ul style="list-style-type: none"> <li>• Regular</li> </ul>



#### MOBILE (WHATSAPP)




Support	
<ul style="list-style-type: none"> <li>- Data not Network</li> <li>- Change cell numbers</li> </ul>	<ul style="list-style-type: none"> <li>- Immediate info</li> <li>- Manage readable</li> <li>- Convenient</li> <li>- Easy &amp; trust</li> </ul>

#### Content

- Recipes (weekly)
- Dietary information
- Wellbeing
- Short
- from Net videos
- Health

#### PARENTS EVENINGS




- Feedback
- Logistics
- Sharing information

Positive	Neg
<ul style="list-style-type: none"> <li>- Community sharing</li> <li>- Clear information</li> <li>- Best information</li> </ul>	<ul style="list-style-type: none"> <li>- Lack of accountability / privacy</li> <li>- Incent</li> <li>- TIME</li> </ul>

#### Content

- Health information → Experts



PRA Workshop 1, Poster 4

**What causes movement?**

- Stimulus from the brain
- Energy
- Lever systems (muscles etc.)

**Fitness?**

- Change your mind
- Train your brain
- Heal your heart

**Muscular Strength:**

**Muscular endurance:**

**Health-related Fitness + general info**

- Age range
- Heart lung
- How often

**Body composition**

**Cardio-Respiratory fitness:**

**PHYSICAL FITNESS**

**Home gym: (Body-weight ex.)**

- Warm-up
- Workout

*running, walking, boxing*

**Motivation**

**NEUROPLASTICITY**

- Set Goals
- Recognize Triggers
- Conscious Decisions
- Seek Pleasure & Rewards from Healthy Pursuits
- New Pathways is Strengthened
- New Healthy Habits are Formed

**Rewards** ← words actions small, tangible....

PRA Workshop 1, Poster 5

**NUTRITION**

④ Holistiese benadering + 3 komponente integrasie → redes ... begin + 1/mond (3-4)

② Wêreld - nutriësie - gesondheid : **WHY?**  
groepe

① FBG - **WHAT?**

③ **HOW MUCH?**

④ Practical guidelines - **TOOLS** (portions)  
L choices : Pa/Veie, streek, groente (indigenous), vleis

③ affordability  
healthy practices  
- onthout  
- lunch box  
- vendors  
- meal planning + preparation  
- easy  
- quick  
- affordable  
- choices + pros + cons (purchased)

① **Weight**

⑤ **recipe:**

① + Parents' responsibility → optimal feeding of children


③ Special needs  
- allergies  
- ↑ blood pressure  
- heart dis./non-comm. obesity

+ Choices: Product, Portion size, Price, Preparation, Preservation

Healthy practices  
What? Choices  
Why?  
How to prepare?  
Frequency  
Home prepared vs fast foods

PRA Workshop 1, Poster 6

PSYCHOSOCIAL  
WELL-BEING



Topics/Themes

① Building a future for my child  
Financial / Schoolwork / Mobilising resources (scholarships) → \*point to resources linking.

② Recognising when child is in distress  
Bullyng / depression / misbehaviour  
↳ Communication / emotional connection. \*


③ Normative development.  
Social, emotional, dev. milestones, postsexual ... etc.


④ Healthy family dynamics + Parenting strategies  
Discipline, parent support, balance, quality time  
"ATTENTION"


\* Contact session towards end ↳ Build networks / connect. --- Longer / more practical round up

\* Pamphlets ↳ Reminders in WhatsApp, might not loose? PRO-info not lost

Number of messages







Format

## PRA Workshop 1, Poster 7

**PHYSICAL FITNESS**

**Topics/Themes**

1. What causes movement?
2. What is physical fitness?
3. Health-related fitness
4. Skill-related fitness
5. Brain fitness and neuroplasticity
6. Performance and health
7. Win-LIFE home gym

**Number of messages**

± 26 messages →  
(26 weeks)

**Format**

The poster features several photographs: a group of people exercising in a park, a person on a red running track, a group of people sitting on a bench, and a group of people jumping rope.

## APPENDIX I - WHATSAPP MESSAGES SENT FOR THE PARENT GUIDANCE INTERVENTION

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**8 April 2019**

Dear parents.

We are very excited about our parent guidance programme that you form part of. As explained in the letter you received, we will be sending you WhatsApp messages two or three times per week for the next 6 months, focusing on healthy eating, physical fitness and the emotional wellness of your child. We believe that all three these components are important for your child to be happy. Of course, you are at the core of your child's happiness and well-being. With this programme, we hope to support you in your parenting task, which may sometimes seem to be overwhelming. Thank you again for being part of this group. This already tells us that you are a caring parent that wants the best for your child.

Warm wishes, University of Pretoria parent guidance team.

**16 September 2019**

Dear parent

Welcome to Munching Monday!

You already know about the food plate and the recommended portions of each food group, but have you managed to tell your children about how the food plate works? We understand that teaching your child to eat healthily isn't always easy, here are some tips to get you started.

🍊 Show your child what a healthy food plate looks like. 🍎🥦 Explain that they should fill half their plate with fruits and veggies that have nutrients that will help their bodies grow. The other half should be whole grains and lean protein that gives them energy to run, dance, and play. 🏃

🍊 When you are cooking 🍳 or grocery shopping 🛒, show them different examples of these key food groups.

🍊 Avoid calling foods “good” or “bad.” Children should learn that all foods have a place in their diet. Label foods as “go 👍,” “slow 🙅,” or “whoa 🙅.” Children can “go” foods like whole grains and fruit they should have every day and “slow down” with less healthy foods like waffles. Foods with the least nutrition, such as slap chips, don't need to be off limits, but children should stop and think twice before they eat them often. 🍷🍷



🍊 Model good eating habits. 🍏🥦🥕 If you tell your children to eat broccoli but never touch it yourself, you might need to take a closer look at your diet. 🍴

🍊 Limit sweets. 🍭🍬 Explain to older children that while sweets and biscuits taste good, sugar can do their body more harm than good. (You can tell younger children that too many sweets will make them feel “yucky.”)

🍊 Offer fresh fruit for desserts and limit treats to two or three times a week to keep cravings for sweets in check.

🍊 Talk about portion sizes. 🍽️ Help children understand that the amount of food on our plates is just as important as the foods that are on it. Teach them that a portion is the “right amount of food for our bodies.”

## 1 August 2019

Dear parent.

Last week we discussed the food pyramid as a tool for healthy eating. The “my food plate” tool can also be used when choosing food. The “my food plate” tool is like the food pyramid except that it gives you a practical example of what your plate should look like. The total number of portions per food group per day remains the same, as sent to you last week.

According to the “my food plate” tool, about half of your plate (at every meal) should be made up of vegetables and fruit, a quarter of your plate should be carbohydrates, grains and starch, and the remaining quarter should be meat or meat alternatives (protein).

## 28 October 2019

Dear Parents

Does your child or someone you know have a food allergy? 🧑🏠 Today we are going to discuss how to manage food allergies in your family. 🤔👶 An allergic reaction happens when the body's immune system thinks something in a food (usually a protein) is harmful. 🤢

Children are most likely to be allergic to peanuts 🥜 and cow's milk 🥛. But they can also be allergic to:

Eggs 🥚

Fish 🐟

Shellfish 🦞

Tree Nuts 🥜

Wheat 🍞

Soy 🌱

Managing a child's food allergy sounds simple: Just avoid the trigger food. 👍 As any parent knows, that can be a challenge. Knowing how to prevent and handle a severe reaction can help you both feel more confident. 💪 Follow these tips to help manage your child's food allergy:

❑ Get your child a medical ID bracelet or necklace to wear that clearly states what their allergy is. 💊

❑ The best way to prevent a reaction is to avoid problem foods. 🧑♀️ But allergy triggers can hide in packaged foods. Read the label- even small amounts of the allergen can do harm. 😞 By law, labels must plainly state if a product contains a common allergy trigger. 🥜👨🍳

❑ Avoid cross contact. Unsafe foods or food particles may touch a safe food in kitchens or factories. 🚫 Dust from peanuts can drift onto chocolate bars 🍫 without nuts if a chocolate maker isn't careful. 🤢

❑ Work with your child's school to make sure he or she is not exposed to unsafe foods. 🏫 Inform the school of any allergies your child might have and make sure they understand what must happen if the child has an allergic reaction. 📅

❑ When eating out, ask to talk to the restaurant manager about its cooking and cleaning methods. 🍽️

❑ Cutting out problem foods can create other problems, like poor nutrition. 😞 Talk to your child's allergy doctor before taking healthy foods out of her diet. 🧑🏠🏥 Milk is important for growth, and if your child is allergic to cows milk they should drink an alternative such as soy milk. 🥛

The good 👍 news is that food allergies are often outgrown during early childhood. 😊 It is estimated that 80% to 90% of egg, milk, wheat, and soy allergies go away by age 5 years. 🙌 Your pediatrician or allergist can perform tests to track your child's food allergies and watch to see if they are going away.


**9 December 2019**

🍏🍏 Dear Parents 🍏🍏

Welcome to Munching Monday!

Sometimes you just need a snack to get you through to the next meal. This isn't a bad thing, actually it is quite important to keep your blood sugar levels constant throughout the day. What you choose to snack on is the important thing.




Luckily there are lots of healthy snacks that you can have at hand to keep you going for longer. Nuts, seeds, fruit and veggies are all ready-to-go snacks. Some snacks do require a little more effort, however homemade is always best.


Rather make your own muffins and cookies like the healthier alternatives in this section. By making your own you can control the amount of sugar, salt and fat that goes into these. Make sure that snacks are as unrefined as possible, with no unnecessary, unhealthy ingredients added. Healthy eating doesn't mean depriving yourself. We all enjoy a treat, but it is important to make good choices and to keep your portions small. See the photos below for easy and affordable snack recipes tried and tested by South Africans 




## 7 October 2019




Dear Parents





Welcome to Meal Planning Monday!




Have you noticed how much of your overall budget you spend on groceries?  Grocery shopping is a significant expense for most families and households, but there are ways to make it more affordable.  Soaring food price hikes in South Africa mean we need to make eating on a budget, while being healthy, top of our priority list. 




Here are some tips to save money  on groceries for you and your family while you're shopping on a budget:

 Shop on a full stomach.  You'll buy less snacks and/or things you don't usually buy - and only buy groceries, not gifts and all the extra stuff, at the grocery store! 

 Go shopping with a list  and stick to it, especially if your children are "helping". 

 Plan  your meals  for the week before you shop and then buy what's on the menu. Start with planning for 3 or 4 days if all week seems too much. 

 Shop only once a week if possible.  You'll tend to spend more if you stop at the store every day or several times a week. 

 Shop when you have energy  and aren't worn out from a busy day. It's easier to focus and make wise choices when you have energy and aren't preoccupied. 

🍒 Shop in familiar stores 🏪 when you're tired, stressed or in a hurry 🤔. You'll find what you need and be able to get out with what you need quickly. 🕒

🍒 Plan 📅 meals so that you have leftovers for lunch the next day, or freeze leftovers for a quick meal another day. 🍲 🍲

🍒 Buy less canned and packaged convenience foods and shred your own lettuce and cheese (cheeses often freeze well too!). 🧀 🧀

🍒 Clean out your fridge 🗑️ and cupboards once a month. Use up what you bought before buying more. 🥬

🍒 Organise your food 🥬 🍓 storage cupboards and drawers. If you don't know what you have or can't find what you bought, you'll end up buying more of the same unnecessarily. 🤔 👩 👁️

🍒 If you stock up, watch expiry dates 🕒 🤔 and package the food to preserve it as long as needed. 🙏

If you only want to try one tip, make it a really good one. 💪 🤔 The one tip that will likely save you the most money 🛒 when you're grocery shopping on a budget is to plan your meals and snacks ahead of time. 🍌 🥗 🍷 By planning ahead, you can make your shopping list based on what you already have, what you still need to buy and what's on sale. ⭐

## 23 September 2019

Welcome to Meal Planning Monday!

For the next five Mondays, we will be discussing various components of meal planning 🍲 🍴. Planning meals in advance 🕒 has many benefits: less food waste 🗑️ ♂, no last minute dinners 🕒 and more family time 🤝! This week we will discuss how you can choose which products to buy for your weekly meals 🛒. Sadly, food prices are constantly increasing 📈 as a result of inflation e.g. the increase in petrol prices. In order to get more value for money when you go food shopping 🛒, here are some tips to make your food rand 💰 go further when buying products for meal planning:



|| No name brands, e.g. the foods with the supermarket name on the label or packaging are often cheaper 💰 than other well-known brands. Always compare prices 🤔 🧠 between different brands of the same product as sometimes well-known brands could be on special 🤝.

|| If you do not have time to cook porridge🍲 in the morning, corn flakes are generally the cheapest instant breakfast cereal 😞.

|| Eggs🍳 are the cheapest form of animal protein. You can boil 🍳, scramble or fry them🍳. Eat them as a sandwich filling, with toast or add them to salads. 🍞🥗

|| Mince meat🍖 is good value for money and is generally the cheapest form of red meat. Extend mince meat by adding beans, split peas or lentils to it. You can also increase the number of portions by combining it with soya mince, vegetables like carrots and onions or bread crumbs. 🥕

|| Home-made soup🍲 made with a 4-in-1 soup mix containing wheat, barley, split peas and lentils is economical and very healthy✔️❤️. You can cook it according to the instructions on the plastic packet or add pieces of chicken and vegetables to it 🥕🍅. One packet makes a large pot of soup that can serve many people.👪

|| Pilchards🐟 are the most affordable type of tinned fish. To add variety to your diet, make your own fish cakes with them. 🐟Add breadcrumbs 🍞, mashed potatoes 🍠, chopped onion and tomatoes🍅 to one can of pilchards, fry them in a little bit of oil and see how a small amount of fish can swell to many healthy fish cakes.🍷

|| Baked beans are a quick and easy, affordable 💰 meal if you do not have time 🕒 to cook 🍲. You can eat them as is, with rice 🍛 or on bread 🍞.

|| Processed and convenience foods🍕🍷🍔 are more expensive than buying fresh ingredients 🍎🥑🥕. It is cheaper to buy fresh than frozen or canned vegetables.

|| Samp, corn🌽 and rice🍚 are cheaper than pasta 🍝. Should you however, be making a pasta dish, it could work out cheaper than having a meat, rice and vegetable meal

## 9 August 2019

Dear parent

🔔Did you know that being 🏃♂️fit🏃♀️ can help your family to feel more confident and competent!?!💪👊🏃♂️

🟢Being fit affects:

🏀your thinking 🧠 and

🏀the speed and ease with which you learn📖

- 🟢 Always remember that your:
- 🟢 fitness levels 🏃♀️🏊♂️🚴♂️
- 🟢 stress levels 😊😱
- 🟢 the amount of sleep you get every night 🛏️
- 🟢 attitude 😊😡😞 and
- 🟢 food choices 🥛🥑🍏
- 👉👉👉 influence your daily activities and your well-being 😊😞
- 🟢 Always try to get enough sleep 🌙zzz
- 🟢 read 📖 more and
- 🟢 exercise regularly 🏃♀️🏊♂️🚴♂️

### 31 January 2020

Dear parents

Welcome to family fitness Friday



Family fitness doesn't have to mean a family gym membership. Each city in South Africa has a range of fun and unusual alternatives to formal exercise, in which kids are likely to be more than willing participants. Try some of these ideas:



☀️The Park Run☀️



Regularly scheduled 5km runs in every city, town and suburb across South Africa. They are free, open to everyone, and take place in pleasant surroundings



☀️The Colour Run☀️



Another activity gaining ground throughout the country is the Colour Run, a 5km run in which the participants or 'colour runners' are doused from head to toe in coloured powder at each kilometre. At least one of these events is scheduled in each major city annually



☀️The Gajiga Run☀️



An event that also covers 5km, but with seven Massive inflatables en route. Each ‘wave’ of runners starts 10 minutes apart, giving all runners lots of time to play around on the inflatables. Even children under five can participate. This event is held in all the major cities



### ☀️Secret Sunrise☀️



A gathering of youngsters, oldies and people who just want to dance and celebrate the sunrise. Participants each wear a set of wireless headphones and are guided on a journey of expression and dance. Venues are chosen to inspire and to celebrate the spaces in our cities and nature. Secret Sunrises are held in cities across the country.



### ☀️Hula Hooping☀️



Contrary to perception, hula hooping is not only for little girls, but for everyone in the family. It’s an entertaining way to tone and tighten up. Try it in your garden or park, Google hula hooping events, or go visit Hooping.



### ☀️Outdoor gyms☀️



Outdoor gyms are dotted around every city these days, usually in the parks. On a sunny day it’s a great way to spend a couple of healthy hours with the family before eating for brunch or lunch



Outdoor activities also don’t cost as much as a gym membership. So, find something that you would all like to do, and above all, have fun doing it



Exercising as a family sets a good example to children, builds healthy habits, boosts motivation and relationships — but most of all, it’s fun!



**9 January 2020**

Dear Parents



Today we are going to discuss emotional regulation and give you an example of a quick and easy seven minute workout you can do with your children in order to improve their ability to achieve emotional regulation. ✨☀️

Emotional regulation is the ability to effectively manage and respond to an emotional experience. 🙌 People unconsciously use emotion regulation strategies to cope with difficult situations many times throughout each day. 🤔💪

When a child experiences dysregulation they aren't able to diffuse their negative emotions. 🚫♀️ These emotions can take control leading to over-the-top reactions, outbursts, or meltdowns. 😞😭

Most kids need help sometimes, or even all the time, with emotional regulation. 😊 However, you can improve their ability to achieve emotional regulation in just 7 minutes per day with exercise. 🧘♀️ The exercise needs to be intense. ☐ Short intensive bursts provide better results than longer durations of exercises with less impact. 🏃🕒

Do the following workout with your children daily to help improve their emotional regulation.

😊 Ideally, this should be done first thing in the morning, especially on school days. ☀️🚌



**\*7 Minute HIIT Workout for Emotional Regulation\***

For this workout you will need:

☀️ A timer (you can use your cellphone)

☀️ Water

☀️ Music

☀️ Optional: kids yoga mat

★ Set your timer for 7 rounds of 45 seconds of work, and 15 seconds of rest, totaling 7 minutes.

Get your child's favourite upbeat music on and get ready to go hard. 🎵 Your child (and you! You've got to model what you want to see!) should be doing as many of these exercises as possible in 45 seconds. 🕒 You actually want to be tired, breathing heavy, and heartbeat elevated at the end of this 7 minutes. 💕

These exercises are all animal themed by the way to make them fun for kids! 🦁🐸🐻🐘





### ☐\*Frog Hops\*

These are exactly what they sound like. Hop back and forth, like a frog. Depending on how much room you have, you may need to hop in one place. 🐸

### ☒\*Bear Walk\*

Place your hands and feet on the floor. Your hips and butt should be in the air, higher than your head. On all fours take two steps forward and two steps back, then repeat. 🐻

### ☓\*Gorilla Shuffles\*

Sink down into a low sumo squat and place your hands on the ground between your feet. Shuffle a few steps to the left and then back a few steps to the right. Maintain the squat and ape-like posture through the entire movement. 🐼

### ☔\*Starfish Jumps\*

These are jumping jacks! Do as many as you can, arms and legs spread wide like a starfish! ✨

### ☕\*Cheetah Run\*

Run in place, as fast as you can! 🐆

### ☖\*Crab Crawl\*

Sit with your knees bent and place your palms flat on the floor behind you near your hips. Lift your body off the ground and “walk” on all fours forward and then backward. 🦀

### ☗\*Elephant Stomps\*

Stand with your feet hip-width apart and stomp, raising your knees up to hip level, or as high as you can bring them up. Try to hit the palm of your hands with your knees. 🐘

And You're Done!

Take some time to cool down slowly. 😎

Do some stretches or yoga poses and allow your heart rate to return to normal. Those 7 minutes will give you and your kiddos a boost that will leave you feeling great for hours! 🙌😊

**10 July 2019**

Dear parent.

The fact that you joined this group demonstrates how much you care for your child. As parent, you are busy moulding your child into the person he/she is becoming. You are central in your child's life and nobody can ever take your place. Our children follow us, look up to us, want

our acceptance, and are proud of us. In molding your child to become a well-rounded person, you however first need to attend to your own health and well-being. By living a healthy life you can set an example that your child will follow. Remember to eat healthy food, exercise regularly and make time for yourself and your loved ones. Your child will automatically follow in your footsteps.

Happy parenting.

**23 October 2019**

Dear parent 👤 👤

★ Welcome to ‘Wellness Wednesday’ ★

Goal setting ✅ for children is important because it gives them a sense of purpose that can improve their confidence and build their self-esteem 💪 😊. It also helps them to focus and make better decisions 😊 ★. Along with this, goal setting can be used to motivate children by ensuring that they achieve smaller goals on a regular basis 🙌.

Children who have goals – whether sporting, academic, or even personal ones – will do better in life than children with no plan at all 😊. With this in mind, teach your children the necessity of goal setting and how to actually go about it by using the following tips:

❑ Write down the goals for each child – Short-term and long-term:

This will help your children focus 👁 on what they want to achieve 💪, and this will help you understand their goals too. 👤 👤

❑ Determine a path forward:

Like building a business plan, you can build strategies and tactics for helping your child reach their goals. 📝 🏏 ♀ For example, if they want to be on their school cricket team 🏏, are they keeping active at home and practicing as much as possible? 🏆 🏆

❑ Post their goals where they can see them:

Whether this is in their room 🏠 or just the fridge door, posting goals in a place children and parents can see 👁 👁 them will be a good reminder to do little things each day to accomplish those goals. 🌱 🙌

❑ Compliment their efforts and breakdown problems:

Positive reinforcement + helps strengthen children’s confidence 💪 when it comes to just about everything, and learning is no different.

5 Find role models they can learn about and possibly meet. Depending on your child's goals, there might be a role model within reach that could continue to inspire them. 🤗⭐ For example, if your child decided they want to be a firefighter, maybe see if there is someone at your local fire station they could speak with. 🔥🚒

6 Determine a new plan if needed: Sometimes the best plans don't work as expected 😞. It's alright to change course or approach something differently if your child isn't advancing as planned. ➡️💡

### REMEMBER

Even if your child hasn't reached his ultimate goal, he will have learnt a few valuable lessons about planning and goal setting and should have noticed measurable improvements along the way. 🙌🤗 More importantly, he has probably learned some things about himself. It's also important to tell him not to lose faith when he fails to achieve a goal. 🌱

After all, life doesn't always turn out as planned. Encourage your child not to give up on dreams that are important to him. 🌈

### 18 September 2019

👨👩 Dear parent 👨👩



⭐ Welcome to 'Wellness Wednesday' ⭐



As a parent, you are invested in your child's school 🎓 life because you know how important it is for their future. 🌈 Supporting your child with their school requires hard work 💡 and a lot of patience ⌚. Here are some positive steps that you can take to help your child motivate himself to do better in school 📖.

📖 Set aside time ⌚ for school work. Be specific about the starting time and let them know they can only play 🎮 after their school work is completed. ✅

📖 Create a workplace. 📖 Create a small workspace for your child where she or he can comfortably do homework or study without any disturbance. 😊

📖 Give your child nutritious food 🍏🍏. The food your child eats can have a negative or positive impact on their performance in the classroom. 🏛️🧐

📖 Create a to-do list. ✅ To ensure that your child doesn't fall behind with school work, it's important that they have a to-do list which will help them prioritise what needs to be done. 📅

The list can include items such as homework time, reading, tidying up the room, and playing. 📝

📖 Be actively involved. 👨👩 Offering your child support and being actively involved in their learning can help your child perform better at school. 🗣️ Make it a habit of constantly

communicating 🗣️ with your child about how they are doing in school. If they have challenges, ✅ take steps to help them. Being actively involved in their learning could

sometimes involve talking to their teacher about their progress. 👩🏫

📖 Instill discipline. Have a time ⌚ limit for watching TV 📺, playing games 🎮 and cell phone 📱 use. However, don't completely cut out playing time, because kids need to play! 😊

📖 Let them make mistakes. While your child needs encouragement 📖 and it's healthy to push them to do their best, no one can get perfect scores on every test.

## 25 September 2019

👨👩 Dear parent 👨👩

★ Welcome to 'Wellness Wednesday' ★

Today we are going to discuss 💬 how to support 💪 your child if they are being bullied ❌.

Bullying can exist in many forms: It can be physical (pushing, punching, or hitting); verbal (name-calling or threats); or psychological and emotional (spreading rumors or excluding someone from a conversation or activity). If your child 🧑🧒 tells you they are being bullied, the following ideas may help.

Make sure your child knows:

1. It is NOT their fault. They are not to blame. 👤
2. They are NOT alone. You are here to help. 🙏
3. It is the adults' responsibility make the bullying stop. 👨👩
4. Bullying is never okay and they have the right to be safe. 👤👤
5. No one deserves to be bullied. 🧑♂️
6. They deserve to be treated with respect. 🙌
7. They have the right to feel safe at school. 🏫

☀️ Once you have done this, it is important to LISTEN 🗣️ calmly and get the full story from your child. 🗣️

★ Ask questions ? to get more details if you need to: who, what, where, when. 🗣️

★ Ask your child what they want to do – and what they want you to do. 🗣️🧐

★ It is important that you help your child to find their own solution as this will help them feel that they have some control over the situation. 🤝👥

★ Make an appointment to meet with your child's teacher and, if you need to, ask to talk with the principal. 🗣️👩🏫👨🏫

★ Contact the school immediately if you have a concern about your child's safety. 🏠

★ Work with your child's school 🏠 to resolve the issue by establishing a plan for how the current situation, as well as any future bullying will be addressed. The school's counsellor or psychologist is also available if required.

### Wednesday 9 October

👩🏫👨🏫 Dear parent 👩🏫👨🏫

★ Welcome to 'Wellness Wednesday' ★

Today we are going to discuss 🗣️ how to support 🦵 your child when they are feeling anxious 😞. All children and (and adults!) get anxious from time to time. 😞 This is a normal part of development as children grow up and develop their 'survival skills', so they can face challenges in the real world. 🦵🌍 We all have different levels of stress 📈 we can cope with - some people are just naturally more anxious than others, and are quicker to get stressed or worried. 👥

There are many ways you can help your child to manage their anxiety.

🌸 Talk to your child about anxiety, what is happening in their body and why it happens.

🗣️ Many children and young people don't know what they are feeling when they are anxious, and it can be very frightening and overwhelming. 😞

🌸 Help them recognise anxious feelings so they can tell when they are becoming anxious and can ask for help. 💖👩🏫👨🏫

🌸 Tell your child it will be okay, and the anxiety will pass. It can be helpful to describe the anxiety as a wave to ride or surf that gets smaller after it peaks. 🌊

- 🌸 Get your child to breathe deeply and slowly, in through their nose for three counts and out through their mouth for three counts. 🧘♀️🧘♂️
- 🌸 Distract them by focusing on something else.
- 🌸 Give them a cuddle or hold their hand if they will let you - touch can be soothing. 😊👐
- 🌸 It can help to talk to your child about finding a safe place in their mind - somewhere that they feel relaxed and happy. 🌈 It may be a grandparent's or friend's house which they can picture when 'wrong thoughts' come into their head or they are feeling anxious. ☺
- 🌸 Encourage your child to notice what makes them anxious. 😟 Talking it through can help but your child could also try keeping a diary or a 'worry book'. 📖
- 🌸 Help them maintain a healthy lifestyle with regular exercise 🧘♀️🧘♂️ to reduce the levels of stress hormones, good sleeping habits, 😴🌙 calm bedtime routines, 📺 limited screen or computer time 📺 in the evening, and a healthy diet. 🥗🍏🥑

## 7 September 2019



🧘♀️ Dear parent 🧘♂️



Welcome to stretching Saturday



The mind is the master of the body. If we train and discipline our minds, the body will follow. Once the body and mind become focused and in tune, you will see that your life will seem to flow



You can achieve a state of healthiness by using the sheer power of your mind



➡️ Think positive and be optimistic. Studies have been conducted time and again which prove that optimistic people are less likely to fall sick. Being optimistic also boosts your immunity



➡️ Meditation. It should come as no surprise to you that stress can be lethal. Mental stress can lead to several diseases and can cause an early death. Meditation is one of the best ways to deal

with stress. It not only keeps age-related diseases at bay, but also increases productivity and slows down the effects of ageing



➡ Laugh whole-heartedly. It might seem strange, but laughing decreases the release of the stress hormones. It also increases the good cholesterol level in the body



➡ The way you look at everything. Your mind is your gateway to the world. Your eyes merely help you see things, but it's your mind that decides what to make of it. Some of us consider workouts to be a set of difficult physical movements that you must do if you're to remain healthy. But, isn't that a negative way of looking at it? What if, instead, you consider your workouts to be the time when you are one with your body, when you feel relaxed, when you do your bit to take care of yourself? In doing so, you're more likely to follow your workout regime, without having to face resistance from your mind



➡ Have a sense of purpose. Having a sense of purpose in life means that you want certain accomplishments. You have a reason to keep going everyday, work towards your goals. It will make you value yourself more, value your body more. You will take better care of it, therefore, increasing longevity of your healthy life



**9 November 2019**

Dear parent 🏃♂️🏃♀️



Welcome to fitness Saturday!



For the following 4 weeks we are going to introduce you to some exercises you and your family can do together to enhance your overall health and fitness levels



Here are some basic instructions you and your family will have to follow when you participate in these exercise lessons:



✳️ You have to warm-up before every lesson (also see photo for warm-up routine)



✔ □og on the spot for 60 seconds (see photo)

✔ ☞Touch your toes for 60 seconds (see photo)

✔ ☞Do squats for 60 seconds (see photo)

✔ ☞Do planks for 60 seconds (see photo)



\*☞Do lessons 1, 2 and 3 next week (11 - 16 Nov)



▶ Lesson 1 (see photo)

▶ Monday and Tuesday

✔ ☞Push-ups (x 20)

⚠ Rest for 60 seconds

✔ ☞Crunches (x 20)

⚠ Rest for 60 seconds

✔ ☞Squats (x 20)

⚠ Rest for 60 seconds

✔ Repeat ☞and☞ times (see photo)



▶ Lesson 2 (see photo)

▶ Wednesday and Thursday

✔ ☞Jumping Jacks (x 20)

⚠ Rest for 60 seconds

✔ ☞High kneed (x 40)

⚠ Rest for 60 seconds

✔ ☞Plank (60 seconds)

⚠ Rest for 60 seconds

✔ ☞Wall sit (60 seconds)

⚠ Rest for 60 seconds

✔ Repeat ☞and☞ times (see photo)





▶ Lesson 3 (see photo)

▶ Friday and Saturday

✔ 🏃‍♂️ Jumping Jacks (x 20)

⚠️ Rest for 60 seconds

✔ 🏃‍♂️ Knee pull ins (x 20)

⚠️ Rest for 60 seconds

✔ 🏃‍♂️ Push-ups (x 20)

⚠️ Rest for 60 seconds

✔ Repeat 🏃‍♂️ and 🏃‍♂️ times (see photo)



After every lesson you have to do stretches (see photo) and cool down (jog on the spot for 60 seconds)



⚠️ \* To summarize \* ⚠️

🏃‍♂️ Warm-up (see photo)

🏃‍♂️ Lessons 1 / 2 / 3 (see photos)

🏃‍♂️ Stretches (see photo)

🏃‍♂️ Cool down (see photo)



## 4 September 2019

Dear parent



Welcome to wellness Wednesday!



Let's face it—life is busy! Between work and life responsibilities, the days pass us by in the blink of an eye. Many parents worry that they don't spend enough time with their children.



Here is a list of things that might help you to spend more quality time with your child:



☉ Have a daily “connect” time with your child. Do this face-to-face, if possible; but if this isn’t an option, create a routine for doing so in other ways, such as leaving a note in your child’s lunch bag, posting a note by his toothbrush, or writing an encouraging saying on a paper and leave it somewhere in the hours

☉ Create a special ritual for you and your child—something that can be done every day. For example, let your child choose and read one book with you at bedtime

☉ Tell your child you love him/her every day. And tell them how important they are to you and how they make you feel

☉ Reinforce positive behaviour. For example, if your child completes his chores without your asking, acknowledge it with words of appreciation - even if you don’t have the chance do so until the next day

☉ Make and eat meals with your children whenever possible. If time is limited, look for simple meals that require very little preparation, or grab a healthy snack such as an apple and sit for a few minutes and chat with your child

☉ Schedule time for doing an activity of your child’s choosing. Be sure to follow through and complete the activity without any distractions

☉ Play with your child. Every little bit of time makes a positive impact!

☉ Laugh and be silly with your child

☉ Exercise together

☉ Turn off technology when you spend time with your child. Try not to text, answer calls, scroll through social media, or watch television



Meaningful connections are about quality of time, not quantity of time. Keep it simple and connect with your child in ways that make sense for your lifestyle and relationship. Each connection has a lasting impact and provides the support and reassurance that your child needs

**28 November 2019**

Dear parents 🧑🏽♂️🧑🏽♀️👤



Welcome to thoughtful Thursday. We are going to start focusing on resources for parents.



Today we are going to help you to learn more about how to access child support grants in South Africa 🇿🇦



❑ What is a child support grant?

Administered by the South African Social Security Agency (SASSA), social grants are income transfers paid to South African citizens who need financial assistance.



❑ Who qualifies?

Caregiver must:

- ▶ be a South African citizen or a permanent resident or a refugee;
- ▶ reside in South Africa;
- ▶ be the main caregiver;
- ▶ meet the requirements of the means test.

Note: You cannot get this grant for more than 6 children who are not your biological or legally adopted children.

The child must:

- ▶ be 18 years old or younger;
- ▶ have been born after 31 December 1993;
- ▶ reside in South Africa.



❑ How to apply for a child support grant:

- ▶ You can apply at your nearest SASSA office.
- ▶ The form must be completed in the presence of a SASSA officer.
- ▶ You will be given a receipt once the application is complete. ▶ Please keep this receipt as it is your only proof of registration.
- ▶ Provide birth certificate of the child.
- ▶ Provide identification document of caregiver.
- ▶ Please note that you cannot apply for more than six non-biological children.

Note: If you are too sick to travel, a family member or friend can apply on your behalf with a letter written by you authorising the application.

If you don't have an ID or the child's birth certificate, you must submit:

- ▶ An affidavit on a standard SASSA form in the presence of a Commissioner of Oaths who is not a SASSA official.
- ▶ A sworn statement by a reputable person (e.g. councilor, traditional leader, social worker, minister of religion) who knows the applicant and child.
- ▶ Proof that you have applied for an ID and/or birth certificate at the Department of Home Affairs.
- ▶ A temporary ID issued by the Department of Home Affairs (if applicable).
- ▶ Baptismal certificate if available.
- ▶ Road to Health clinic card if available.
- ▶ School report if available.



4. When do you receive your social grant?

If your grant is approved, you will be paid from the date on which you applied. You will be issued with a SASSA payment card – this card is used to access the money.

These are alternative payment methods:

- ▶ Banks including Postbank;
- ▶ Institutions – contact your nearest SASSA office.

If your application is unsuccessful you have the right to request SASSA to reconsider its decision. If the reconsidered decision is still unfavourable, you have the right to appeal to the Minister of Social Development. You will be informed in writing of the reasons your application was refused.

Note: Should you choose to ask SASSA to reconsider their decision, your submission for reconsideration should be done within 90 days of notification.



5. Suspension of the child support grant

The child support grant will be suspended under these circumstances:

- ▶ Changes in financial circumstance;
- ▶ The outcome of a review;
- ▶ Failure to cooperate when a grant is reviewed;
- ▶ Committing a fraudulent activity or misrepresentation;

▶ Where a grant was approved in error.

### ↳ Lapsing of grants

The grants will lapse in the case of:

- ▶ Death;
- ▶ Admission to a state institution;
- ▶ If the grant has not been claimed for 3 consecutive months;
- ▶ If you cease to be a refugee;
- ▶ If the child for whom the grant is received turns 18.

Note: The intention of the child support grant is to ensure that children attend and complete schooling. It is therefore a requirement that a school attendance certificate is produced for children aged between 7 and 18 years. However, failure to produce this certificate or failure to attend school will not result in the refusal to pay their child support grant.



### ↳ Means test

SASSA will evaluate your income and assets in order to determine whether you qualify for income assistance.



### ↳ Who to contact:

Visit the South African Social Security Agency (SASSA) website or call 0800 601 011



## 21 August 2019

Dear parent

Welcome to 'well-being' Wednesday 🤝🤝🤝🤝

Today we are going to focus on positive parenting and positive discipline 📝

📌 Positive parenting and positive discipline works well with all children regardless of their age, background, culture or tradition.

📌 When children are 'misbehaving' they are usually trying to communicate that they have an unmet need

📌 It is important to reassure your children that they will always be loved even they may make mistakes or poor choices

- ✎ Take time to show them how to do things - be a good example, because children learn from what they see
  - ✎ Praise the behaviour you want to see in your child
  - ✎ Avoid harsh punishment such as screaming and smacking your children
  - ✎ Emphasize all the things that pleases you as a parent about your child
  - ✎ Have clear limits that are fair and age appropriate
  - ✎ Focus on feelings and problem solving together as a team to foster a positive parent-child connection
- ✎ REMEMBER: Positive parenting and discipline takes time 🕒🕒 and effort 💪💪❤️

## 11 May 2020

Dear Parents 🌐

Are you concerned about the effect of the COVID-19 pandemic on your child's mental health? You are not alone. Here's what you need to know about protecting their mental health now and in the future. 😓

For the most part, kids are resilient and tend to bounce back from adversity easier than adults, experts say. But that doesn't mean tragedy and trauma can't leave their marks on kids. 😞 And in the wake of the COVID-19 pandemic, many parents are left wondering if months of isolation, lack of structured schooling, and the potential loss of loved ones will have long-lasting mental health implications for their children. 🤔

While it's uncertain how long anxiety will last after the pandemic is over, experts say parents and caregivers can play a role in preventing long-term mental health issues. The first step is understanding how kids are affected by the world right now. 🤔

### How Can Parents Help?

The good news is that as parents and caregivers, it's in our direct power to lessen the impact of this upheaval on our kids. 😊 The majority of children are resilient because we, their trusted parents or caregivers, do something...

#### ☑ Focus on the positive

Research shows focusing on the positive and gratitude can improve mental health, help with sleep, and increase optimism. And even in times of stress and fear like what we're experiencing

with the COVID-19 pandemic, there are still opportunities to elevate positive experiences.



### Validate Your Children's Feelings

Supporting kids through the pandemic can take many shapes and look different for every family, but the most important thing we can all do is to be proactive in asking them how they're feeling, listen when they express their feelings, and validate those thoughts. 😭😞😘😡😞😞😞

### Make a Plan

After you've talked to your kids about how they're feeling, it's important to talk about all the ways you're staying safe and how you can help those around you. When worry can fester on its own without any action steps for how to relieve that worry or anxiety, it can overwhelm us and our children. Come up with some things you can do at home to help. Whether it's chalk drawings on the sidewalk or signs in the windows, sending a letter to grandparents, or thank you notes to first responders and health care workers, letting children feel like they are helping is important. 🌞🌍🛒🧤🧼🗣️

### Monitor Them After the Pandemic

Once we've established a new normal and the immediate threat of the pandemic has subsided, parents should continue to pay attention to their child's emotions. Experts say to look out for signs of lingering trauma like withdrawal, anxiety and fear, sleep disturbances, and changes in eating habits. Therapy is always a valid choice, but after a global crisis it may be more important than ever for children to learn how to process their emotions and resume a normal life. 🧘😞😘🍏🧘😞



### The Bottom Line

Kids are resilient and they can come out of the COVID-19 pandemic feeling reassured as long as parents and caregivers help them through it. Make sure to validate their feelings, explain how they are making a difference by just staying home, and help them keep their social interactions strong. 😎🌻



**10 March 2020**

Dear parent



Today we are going to focus on strengthening our immune systems



What can we as parents do to support our children's immune systems?



Your first line of defense is to choose a healthy lifestyle:



- ⚠️ Don't smoke
- ⚠️ Eat a diet high in fruits and vegetables
- ⚠️ Exercise regularly
- ⚠️ Maintain a healthy weight
- ⚠️ Get adequate sleep
- ⚠️ Take steps to avoid infection, such as washing your hands frequently and cooking meats thoroughly
- ⚠️ Try to minimize stress



What kind of food will boost our immune system?



Increase your vitamin C intake and add these foods to your diet:



- ⚠️ citrus fruits and juices (such as orange and grapefruit)
- ⚠️ kiwi fruit
- ⚠️ red and green peppers
- ⚠️ broccoli
- ⚠️ strawberries





Get your fill of vitamin E by eating the following:



⚠️ almonds

⚠️ sunflower seeds

⚠️ hazelnuts

⚠️ peanut butter



Add the following sources of zinc:



⚠️ baked beans

⚠️ cashews

⚠️ chickpeas



Look to these foods to boost your Vitamin A intake:



⚠️ carrots

⚠️ kale

⚠️ apricots

⚠️ papaya

⚠️ mango



Try these omega-3-rich foods:



⚠️ oily fish (including mackerel, tuna, salmon, sardines, herring, and trout)

⚠️ flaxseed

⚠️ walnuts



For more foods that may help boost your immune system, try adding:



⚠️ garlic

⚠️ foods high in probiotics (such as yogurt) and

⚠️ green tea to your diet



## 7 April 2020

Dear parents



We will be sharing some ideas that we hope is helpful to all of you throughout the next two weeks. Here is the first 5 tips to make quarantine a bit easier:

1️⃣ Stick to a routine

Go to sleep and wake up at a reasonable time, write a schedule that is varied and includes time for work as well as self-care

2️⃣ Dress for the social life you want, not the social life you have 😊

Get showered and dressed in comfortable clothes, wash your face, brush your teeth. It is amazing how our clothes can impact our mood

3️⃣ Find some time to move each day for at least thirty minutes

If you do not feel comfortable going outside, there are many YouTube videos that offer free movement classes, and if all else fails, turn on the music and have a family dance party!

4️⃣ Reach out to others

Try to do FaceTime, Skype, phone calls, texting — connect with other people to seek and provide support

5️⃣ Stay hydrated and eat well

This one may seem obvious, but stress and eating often do not mix well, and we find ourselves over-indulging, forgetting to eat, and avoiding food. Drink plenty of water, eat some good and nutritious foods, and challenge yourself to learn how to cook something new!



(Resource: Mental Health Wellness Tips for Quarantine. By: Eileen Feliciano | Clinical Psychologist)

## 6 May 2020

Dear Parents 🌟

Happy Wednesday!

You may be finding it tougher to exercise while under lockdown. 🤖 But you can still find ways to make movement a part of your daily routine. 🏃

🔒 Get outside if you can

Check the latest guidelines from your government on the specifics for your area. 📄 In South Africa you are allowed to exercise between 6am and 9am within a 5km radius of your house while wearing a mask and social distancing. 😊 Take a walk, jog, or ride a bike outside if you can—just maintain a safe distance from others. 👤 Gardening and yardwork are also good options. 🌱 The fresh air and sunshine will benefit your mental health as well. ☀️

🔒 Make it a social activity

Including the people you're quarantined with can make exercising more fun. 👤 Play an active game like tag or hopscotch with your kids or turn on some music and dance together. 🎵

🔒 Track your workouts

Using fitness trackers, apps, or even just keeping a journal can help you stay accountable and motivated. 🙌 Seeing your progress and your ability to keep active during this difficult time will give you a sense of accomplishment and an emotional boost to keep going. 👤👤

🔒 "Sneak" movement into your routine

Even though we're mostly housebound, you can still find ways to incorporate movement into your day. 🏃 Try to think of physical activity as a lifestyle choice, rather than as a designated event. 😊 This may help sustain you in times like these, when your schedule has been upended.

☐ Use your chores. Household tasks like scrubbing, sweeping, dusting, and vacuuming can all add up when done at a brisk pace. They also work the muscles in your arms and legs.

☑ Exercise during commercial breaks. Many of us are watching more TV. Make the commercials and credits count by adding in some squats, jumping jacks, push-ups, or lunges.

☑ Take advantage of pauses during the day. Take advantage of times when you're waiting for something to finish or start. You can fire off some arm exercises or practice some yoga poses while the dinner is in the oven or during those 15 minutes before a Zoom meeting.

☑ Move around the house more. Walk around while you're making calls. Take an extra lap or two around the house if you have to put something away. If you have stairs, go up and down them a few times throughout the day.

🔒 Take advantage of technology

Many personal trainers and gyms are offering virtual sessions and classes, which can help keep you accountable and give you a social connection. 👤 For free workouts, YouTube is a great resource. You can find virtually any type of exercise at any workout length or intensity you're looking for. 🏋️ There are also many apps, both paid and free, that offer guided workouts and routines. 🌐