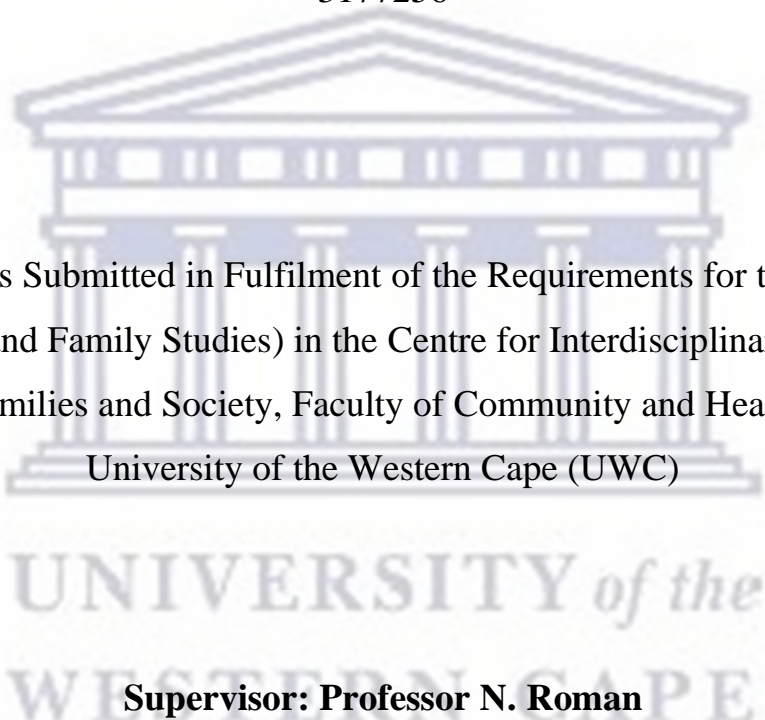


An examination of the association between parental mental health and parental perceptions of nurturing care in the first 1000 days

Lisa Rene' Petersen

3177256

The logo of the University of the Western Cape (UWC) is a large, faint watermark in the background. It features a classical building with a pediment and columns, with the text 'UNIVERSITY of the WESTERN CAPE' below it.

Full Thesis Submitted in Fulfilment of the Requirements for the Degree
MA (Child and Family Studies) in the Centre for Interdisciplinary Studies of
Children, Families and Society, Faculty of Community and Health Sciences,
University of the Western Cape (UWC)

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November 2021

ABSTRACT

The first 1000 days, is the most crucial period not only for survival but also for thriving. What happens in the early days has an immense impact on long-term development with the potential to transform a next generation and society. Research suggests that if parents are nurturing, responsive and have a strong attachment with their baby in the first 1000 days, they will develop positively but parents need to be well to do this. The research on nurturing parenting and the mental health of parents is very limited in South Africa. The study aimed to assess the association between parental mental health (mental well-being) and parental perceptions of nurturing care in the first 1000 days. A quantitative research approach was used with a cross-sectional correlational research design. A non-probability purposive sample was selected in Cape Town, Western Cape. The sample consisted of 147 parents who are either pregnant or has children aged between 0 and 2 years old. The data for this study was obtained through self-report questionnaires which consisted of demographics, Parenting (PASCQ), Nurturing Care (Parent child attachment and PAI), responsive parenting and parental mental health (DASS 21). Questionnaires were in English, Afrikaans and isiXhosa. Data was analysed using the Statistical Package for Social Sciences (SPSS) v27. Data was interpreted using descriptive and inferential statistics. The findings of the study suggest that for parents with children in the first 1000 days, there is a significant positive relationship between parental mental health (depression, anxiety, stress) and negative parenting approaches and vice versa. The assumptions of the study were confirmed that there is a relationship between parental mental health and nurturing care during the first 1000 days.

KEYWORDS

First 1000 days

Parent

Parenting styles

Parenting practices

Parental involvement

Parental Attachment

Nurturing care

Responsivity

Mental health



LIST OF ABBREVIATIONS

| | | |
|----------------|---|---------------------------------------|
| BMREC | - | Biomedical Research Ethics Committee |
| DASS 21 | - | Depression Anxiety Stress Scales |
| ECD | - | Early Childhood Development |
| PAI | - | Prenatal Attachment Inventory |
| PASCQ | - | Parenting as a Social Context |
| SPSS | - | Statistical Package in Social Science |
| UNICEF | - | United Nations Children's Fund |
| WHO | - | World Health Organization |




DECLARATION STATEMENT

I declare that the study entitled, “*An examination of the association between parental perceptions of nurturing care and parental mental health in the first 1000 days*” is a result of my own research. All the sources used in this study, have been indicated and fully acknowledged, by means of complete references.

Name: Lisa Petersen

Date: November 2021

Signed: 



ACKNOWLEDGEMENTS

I would like to express my gratitude to each and every person who has encouraged me on this journey.

Firstly, I am eternally grateful to God for giving me the opportunity to pursue my studies, for giving me the strength and ability to complete this thesis. This journey has been challenging, but blessed.

To my supervisor Professor Nicolette Roman, thank you for simply being you. Thank you for seeing in me, what I don't see in myself. There were times when I felt like this journey was not meant for me, but your constant support and motivation kept me going. Thank you for helping me work through the failure and the setbacks. I don't think I would have made it this far without your guidance, dedication and love for academia. I am honoured and proud to have been supervised by you.

To my co-supervisor, Dr. Babatope Adebisi, thank you so much for your time and effort invested in me.

To my parents, David and Christine Petersen, thank you. Thank you for always being there for me day after day encouraging me and supporting everything I do. Even though you did not always understand, you never gave up on me and supported me.

To my brother, Matthew, thank you for your constant support, for bringing me coffee and checking up on me constantly. I am truly blessed to have people like you who love and support me the way you do.

To my cousins Nina Ram and Maxine Petersen, thank you for simply being you. You both have helped me in more ways than you even realise. Thank you for being patient with me and always taking me under your wing and being by my side whenever I needed you.

To my friends, who have been my greatest supporters and constantly motivated me when I found myself in a dark space. Candice and Kyle thank you for understanding when I am distant and detached from the world. Thank you for understanding that I couldn't always give you the time you deserved. To Lorenzo, thank you for always reminding me why I started this journey, for believing in me and reminding me of my potential. To my best friend Cindy-Lee Rix, thank you, thank you, and thank you! Thank you for always understanding my silence and for motivating me through my darkest days. Thank you always for the simple things like sending me a random message to just say "I understand". I am truly grateful to God that He made our paths cross when He did. Thank you for loving every version of me.

To my colleagues, who soon became my friends, Kezia and Tessa, I honestly don't know how I would have completed this degree without you. From day one, you both have always been willing to lend a hand and you have helped me make sense of everything. Thank you for your advice and support.

To the participants who so willingly participated in this study, thank you for your time. Your contribution is invaluable.

Thank you to the National Research Foundation (NRF) for their financial contribution towards this research.

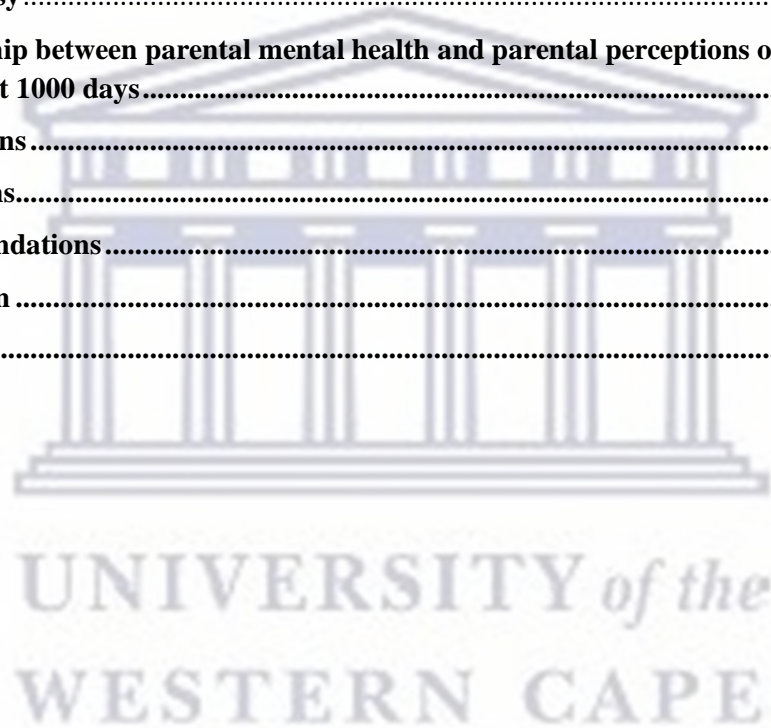
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CHAPTER 1

INTRODUCTION

1.1. Background and Rationale

The formative years, particularly the first 1000 days (from conception to age 2), is a period of sensitivity for child development where children's long-term outcomes can be positively affected (Western Cape Department of Health, 2017). This period is crucial for the child as it provides a window of opportunity for setting foundation for health, well-being, learning and productivity (World Health Organization [WHO], United Nations Children's Fund [UNICEF], & World Bank Group, 2018). The first 1000 days is particularly important for brain development. At birth, a baby has all the brain cells (neurons) they will have for the rest of their life, and the connections between these cells are important as they enable individuals to think and communicate, self-regulate and solve problems (Music, 2010). Therefore, the importance and awareness of the first 1000 days have been acknowledged by the Lancet Series "Advancing Early Childhood Development: from Science to Scale" (Black et al., 2017), Global Strategy for Women, Children and Adolescents (2016-2030), and the Sustainable Development goals (WHO et al., 2018).

Moreover, in South Africa, people are faced with a multitude of risk factors which can impact child development. These risk factors include but are not limited to poverty, HIV/AIDS, and substance abuse (Adebiyi et al., 2021; Lucas et al., 2018). These factors lead to many challenges for people, especially parents. Thus, in South Africa, the importance of the first 1000 days, has been recognized and are supported by policies such as the National Integrated Early Childhood Development Policy of South Africa (Republic of South Africa, 2015). By having policies and programmes based on the first 1000 days, governments and other

stakeholders are ensuring that parents are aware of the importance, but also to encourage more women to access the necessary antenatal and post-natal care.

During the first 1000 days, children are dependent on their primary caregiver as they are unable to self-regulate and care for themselves. Therefore, focus needs to be placed on parents and individuals who are of child bearing age to ensure that parents' well-being is given serious consideration, as a means to promote optimal child development across the child's lifespan. During the first 1000 days, children are dependent on the care they receive and their growth depends on the capacity of their parents (Pem, 2015). During pregnancy the developing foetus actively responds to changes in the environment by using prompts from the mother's physical and mental state (Moore et al., 2017). Similarly, after birth, the child's development is dependent on the parents and primary caregivers. For healthy development, children require nurturing care which is the "conditions which promote good health, nutrition, security, safety, responsive caregiving and opportunities for early learning" (WHO et al., 2018: 2).

Therefore, the quality of the relationship between the parent and the developing child is important. The quality of the parent-child relationship starts with the parenting capacity and the type of care parents provide. Hence, nurturing and sensitive parenting is fundamental during the first 1000 days. Nurturing care is the foundation for children reaching their full developmental potential (Goldschmidt et al., 2021).

Since nurturing care is driven by emotions and motivations, factors such as parental mental illness can disrupt parenting and caregiving (WHO et al., 2018), which consequently affects child development. Approximately 10-13% of women globally experience mental illness pre- and postnatally which affects parent-child bonding and evidently, intellectual, emotional, social and psychological developmental delays for the child (Gajos & Beaver, 2017). Although research on paternal mental health is growing, research on the prevalence of paternal mental

health pre- and post- pregnancy, is limited. Furthermore, the field of parental mental health in association to nurturing care during the first 1000 days is under researched. To this end, the link between parental mental health and nurturing care in the first 1000 days is not very clear within the South African context. Thus, this study examined the association between parental mental health and parental perceptions of nurturing care in the first 1000 days.

1.2. Theoretical framework

This study will be conceptually anchored on the 2018 Nurturing Care Framework for early childhood development (WHO et al., 2018). This framework builds upon substantial evidence of how early child development (ECD) unfolds and how effective policies and interventions, during the first 1000 days, can improve ECD. The framework suggests that efforts to improve health and well-being of parents and children should be implemented in the formative years as it will improve the chances of children not only surviving, but also thriving (WHO, 2018). Furthermore, the framework suggests that in order to reach their full potential, children need a combination of five components. The first and second are *health and well-being* of both the caregiver and children; and *adequate nutrition*- which implies that during pregnancy, the mothers' nutrition affects her health and the developing foetus' nutrition and growth (Glover, 2014; Mputle, 2019). The third component is *responsive caregiving* which speaks to the importance of observing and responding to the movements, sounds, gestures and verbal requests of the child (WHO et al., 2018). The next is *opportunities for early learning* which suggests that children start learning from birth by observing their environments and mimicking what they see and hear; and the final component *safety and security*. This component suggests that during the first 1000 days, children are dependent on their parents and cannot protect themselves; thus, they depend on their parents to keep them safe from possible danger, pain or stress (Mulder, et al., 2018; WHO et al., 2018). For the purpose of this study, the health and well-being, as well as the responsive caregiving components of the framework, will be used.

In addition, the framework speaks to parental mental health and the role it plays on child development in the first 1000 days. The framework highlights that the mental health problems which parents face can disrupt parenting and caregiving, which consequently affects the child (aged between 0 and 2).

1.3. Problem statement

The first 1000 days is when the child is most vulnerable and adaptable (Moore et al., 2017). By age 2, approximately 80% of their brain is already developed; thus, this period is crucial not only for survival but also for thriving as they progress through life (WHO et al., 2018). However, research has shown that globally, infants are considered at-risk of reaching their developmental potential due to multiple factors. According to a 2017 international study by Save the Children called “Stolen Childhood”, 156 million children under the age of 5 have stunted growth of which 23.6% are South African children. Many of these children are exposed to multiple risks including poverty, poor health, and unstimulating home environments which hinder their development (Lucas et al., 2018). Thus, what happens in the early days has an immense impact on long-term development. During this period the child is dependent on the primary caregivers or parent (mother and/or father) as they lay the foundation for the child to grow intellectually, emotionally and socially; and the choices they make influence the way in which the child develops. If parents are nurturing, responsive and have a strong attachment with their baby in the first 100 days, they will develop positively (Winston & Chicot, 2016). Since nurturing care is driven by emotions and motivations, mental health problems can disrupt parenting and caregiving (WHO et al., 2018), which consequently affects child development. A University of Cape Town project, ‘Perinatal Mental Health Project’ (PMHP), indicated that mental health problems in women who are pregnant or who recently gave birth affect 10-15% of women in developed countries, and almost 40% in South Africa (Honikman et al., 2014).

Additionally, a 2016 study reviewed 175 cases of child abuse and neglect from 2011-2014 and revealed that 53% of the cases, featured parental mental health problems (Sidebotham, 2016). However, despite these cases and research, there are no studies that focus on parental mental health (mental well-being) and its association with parental perceptions of nurturing care during the most important stage of development- the first 1000 days. Therefore, the aim of this study is to examine the association between parental mental health and parental perceptions of nurturing care in the first 1000 days.

1.4. Research questions

1. What is the prevalence of parental mental health (mental well-being) in the first 1000 days?
2. What is the prevalence of parental nurturing care in the first 1000 days?
3. Is there a relationship between parental mental health and parental perceptions of nurturing care in the first 1000 days?

1.5. Aims and objectives

1.5.1. Aims of the study

The aim of the study was to assess the association between parental mental health (mental well-being) and parental perceptions of nurturing care in the first 1000 days.

1.5.2. Objectives

The objectives of the study were to:

- Determine the prevalence of parental mental health (mental well-being) in the first 1000 days,
- Determine the prevalence of parental nurturance in the first 1000 days,

- Examine the relationship between parental mental health and parental perceptions of nurturing care in the first 1000 days.

1.5.3. Hypotheses

H₁: There is a significant relationship between parental mental health and parental perceptions of nurturing care in the first 1000 days

H₀: there is no relationship between parental mental health and parental perceptions of nurturing care in the first 1000 days.

1.6. Research methodology

This study used a quantitative methodology. Data was collected by using predetermined questionnaires. The study adopted a cross-sectional correlational research design. The study was conducted with male and female parents (pregnant or had a child aged 0-2), who are residing in Cape Town, Western Cape at the time of this study. This study sought to assess the relation between variables of parental mental health (stress, anxiety and depression) and nurturing care of pregnant parents (separating self from foetus, affection, fantasy, interaction and sensitivity) and parents with children aged 0-2 (warmth, rejection, chaos, conflict, closeness, dependence and responsive parenting), at one point in time (Creswell, 2013). The study utilised both purposive and snowball sampling techniques. Purposive sampling is the intentional selection of participants based on their ability to answer and explain a particular phenomenon (Robinson, 2014). Snowball sampling is a technique where research participants recruit or identify other participants who match the inclusion criteria for the study (Kirchherr & Charles, 2018). Descriptive and inferential statistics were used to analyse the data collected. The detailed data collection procedures for the study are provided in Chapter Four.

1.7. Significance of the study

During early childhood, children are particularly dependent on their parents and primary caregivers. During the first 1000 days, child development takes place at a rapid pace, and the care they receive in this phase, has lifelong effects which can help them reach optimal development. However, children in South Africa, are failing to reach their developmental potential as demonstrated by the high rates of stunting. This is due to numerous factors which included inadequate nurturing and responsive care. Parental mental health problems play a significant role in how parents' parent their children (WHO et al., 2018), which consequently affects the child's potential to reach optimal development.

The Sustainable Development Goals and the Global Strategy for Women's, Children's and Adolescents' Health (2016), promotes that instead of focusing only on children surviving, focus needs to be placed on how children can thrive as well. The National Integrated Early Childhood Development Policy (2015) suggests that the Department of Health is responsible for highlighting the association between parental well-being and child well-being. The policy, in alignment with the Nurturing Care framework, highlights the importance of children receiving secure and nurturing relationships with their parents (Britto et al., 2017). Thus, care which previously focused only on providing care to ensure children survive, should also focus on receiving care which ensure children thrive and reach their optimal development.

By considering the importance children surviving and thriving, and the national and international policies emphasis on this holistic child development, as well as the high rates of parental mental health problems; it is clear there is a dire need to ensure that children are receiving nurturing care during the first 1000 days to ensure they reach their developmental potential (WHO et al., 2018). In order to gain more insight, this study sought to assess parental mental health and parents' perceptions of nurturing care during the formative years. Thus, the findings of the study will be beneficial to parents, professionals, and social services which offer

intervention of nurturing care in the first 1000 days. It may especially be helpful in prenatal interventions. The findings of this study may help organizations or projects working toward ensuring that all children are receiving nurturing care

1.8.Definition of terms

First 1000 days:

The first 1000 days consists of the period from conception (270 days) to the end of the second year (365 +365 days) (WHO, 2018).

Parent:

Parent refers to anyone who plays primary caregiving role in a child's life (Gould & Ward, 2015)

Parenting styles:

Levine (2011) describes parenting styles as the typical ways parents think, feel and behave in terms of child-rearing.

Parenting practices:

Parenting practices are the specific behaviours that parents use to socialize their children (Whitebread & Bingham, 2013)

Parental involvement:

Parental involvement refers to a process through which parents participate meaningfully (Myeko, 2000)

Parental Attachment:

Attachment refers to the dynamic and mutual connection in a child-parent relationship (Bush & Peterson, 2013).

Nurturing care:

Nurturing care is an environment sensitive to children's health and nutritional needs provides protection from harm, includes opportunities for early learning and interactions with others that are emotionally supportive, responsive and developmentally stimulating (Britto, et al, 2017).

Responsivity:

Responsivity is “also referred to as responsive caregiving includes observing and responding to children's movements, sounds, gestures and verbal requests. It's the basis for protecting the child, recognizing and responding to illness, enriching learning and building trust and social relationships” (WHO et al., 2018).

Mental health:

Mental health is defined as a state of well-being in which every individual realises his or her own potential, can cope with normal stresses of life, can work productively and fruitfully and is able to contribute to his or her community (WHO et al., 2014).

1.9. Layout of thesis

Chapter 1: Introduction

The first chapter of this thesis introduces the notion of the first 1000 days of life and the concept of parental perceptions of nurturing care and parental mental health. The background and rationale of the study are stipulated and the aims and objectives, which encompass the study, are illustrated as a means to stipulate the significance of the study.

Chapter 2: Theoretical Framework

Chapter two, comprises the theoretical framework- The Nurturing Care Framework- which underpins this study. The chapter highlights the five components (good health, adequate health, responsive caregiving, opportunities for early learning and safety and security) of the Nurturing Care framework, with reference to the attachment theory, socio cultural and social learning theories.

Chapter 3: Literature Review

Chapter three of this thesis explores existing research on the first 1000 days by highlighting the stages of child development. It also provides an introduction to parenting styles and practices and how it relates to nurturing care and responsive caregiving. The notion of parental mental health is also explained in this chapter.

Chapter 4: Methodology

This chapter includes a description of the methodological processes used in this study. It also provides an overview of the research design, sample and sampling methods, data collection procedure, instrument including validity and reliability as well as data analysis techniques, and lastly the ethical considerations.

Chapter 5: Results

This chapter presents the results from the analysis of data collected from the participants. The results provide descriptive and inferential statistics information about the sample in terms of percentages, means, frequencies and correlations.

Chapter 6: Discussion, Conclusion and Recommendations

In this chapter, a discussion of the findings will be presented as a means to answer the research questions, aims, objectives and hypotheses. It will provide an explanation of the association between parental mental health and parental perceptions of nurturing care in the first 1000 days. Furthermore, limitations of the current study and recommendations for future research will also be provided and followed by a brief conclusion of the study.



CHAPTER 2

THEORETICAL FRAMEWORK

2.1. Introduction

This chapter provides the theoretical underpinning of the study. During the first 1000 days, parenting and parental mental health is different than in any other stage of development. Therefore, the Nurturing Care framework -which explores parenting in terms of nurturing care and parental mental health- was used to theoretically and conceptually ground this study. The Nurturing Care Framework discusses that there are five components– good health, adequate caregiving, responsive caregiving, opportunities for early learning and safety and security- required for children to reach their full developmental potential, and to thrive later in life. The framework also explores parental mental health. Although the Nurturing Care framework underpins this study, previous theories such as the attachment theory, social learning theory and the socio-cultural theory, will be linked to the components of the Nurturing Care framework as a means to enhance frameworks importance, as this new is a new and developing area of research.

2.2. The Nurturing Care Framework

The Nurturing Care Framework for early childhood development was used to conceptually underpin this study (World Health Organization [WHO], United Nations Children's Fund [UNICEF], & World Bank Group, 2018). The Nurturing Care framework was developed in response to the Global Strategy for Women, Children and Adolescents (2016-2030) (Every Woman Every Child, 2015) which aims to end preventable deaths, ensure the health and well-being of individuals, as well as promoting enabling environments. The Global Strategy for Women, Children and Adolescents has three main objectives which include: survive (by ending

preventable deaths), thrive (by ensuring health and well-being) and to transform (by expanding enabling environments) (Kuruville et al., 2016). Similarly, the Sustainable Development Goals (SDG) provides an all-encompassing plan to achieve a more sustainable future for all (WHO et al., 2019). The SDGs are focused on, but not limited to nurturing care and creating conditions that enable children to not only survive but also thrive and transform to their full potential and health (WHO et al., 2019). One of the shared targets of the SDG, is that all children have access to quality early childhood development (SDG target 4.2).

In accordance, the Lancet Series “Advancing Early Childhood Development: from Science to Scale” (Black et al., 2017) recognised how important the formative years are for human development. This series particularly, emphasises that nurturing care- during the first 1000 days- is the foundation for child development. Therefore, as a response to the Global Strategy for Women, Children and Adolescents (2016-2030), the SDG’s and the Lancet Series “Advancing Early Childhood Development: from Science to Scale”, the Nurturing Care Framework was developed as a means to encourage intervening earlier, rather than later, as early intervention has better long-term outcomes, which consequently enable societies to transform. Thus, the WHO, UNICEF, the World Bank Group (2018) and many other partners, developed the Nurturing Care Framework.

According to the WHO, the Nurturing Care Framework refers to the sensitive caregiving environments primary caregivers and parents provide, to ensure that children have good health and nutrition, to ensure they are protected from threats, and have opportunities for early learning- which are provided through opportunities for play, responsive interactions and emotional support (WHO, 2020; WHO, 2021). The framework also builds upon substantial evidence of how early childhood development (ECD) unfolds and how effective policies and interventions during the first 1000 thousand days can improve ECD (Black et al., 2017; Richter,

et al., 2018). Therefore, the Nurturing Care Framework calls for governments and all stakeholders, in combination with parents and caregivers, to take ownership of ECD.

The framework focuses particularly on the First 1000 days period - which comprises the period from conception to age 2- as this period is important for brain development; and this period of child development tends to be overlooked within public policies and programmes (Britto et al., 2017). This period is particularly important for child development as the brain is most susceptible to its environmental influence at this point (Lagercrantz, 2016). Thus, it can be said that during the first 1000 days, the developing child's brain requires and depends on nurturing care for healthy development (Britto et al., 2017). By being nurturing, it is more likely for the child to develop to their full developmental potential (WHO, 2018) as nurturing care promotes physical, emotional, social and cognitive development. Nurturing care is also a means to protect young children from the worst effects of adversity (Slogrove et al., 2020; WHO, 2018). Furthermore, the framework highlights that nurturing care created by policies, programmes and services that protect children from threats; provides opportunities for early learning through emotional support and responsive interactions (WHO et al., 2018). Consequently, nurturing care during early childhood produces lifelong and intergenerational benefits for health, development, productivity and social cohesion (WHO, 2020). Therefore, the Nurturing Care Framework also promotes the idea that efforts to improve health and well-being (of both the parents and the developing child), should be implemented in the formative years rather than later, as it will improve the chances of children not only surviving, but also thriving (WHO et al., 2018). Therefore, the core value of the Nurturing Care Framework is that if all children are enabled to survive and thrive, and no child is left behind; then it is possible for transformation of the health and well-being of everyone in all societies (Kuruvilla et al., 2016; WHO et al., 2018, WHO, 2020). Hence to achieve this, the Nurturing Care Framework suggests five components:

2.2.1. Good Health

The Nurturing Care Framework highlights that good health during the first 1000 days, should be viewed as an interconnected entity rather than separately. Thus, instead of focusing on the health of the primary caregiver or the health of the child separately; the Nurturing Care Framework focuses on the well-being of both the child and the primary caregiver; meaning that the health of the child, influences the health of the mother and vice versa (WHO et al., 2018). Therefore, the physical and mental health of the caregiver affects their ability to care for their child which consequently impacts child development. For example, factors that can benefit caregiver and child well-being and health include vaccinations. Having vaccinations can not only prevent illnesses but it can also be beneficial for financial savings and benefits in labour productivity (Stack et al., 2011). Therefore, both the caregivers and the child benefit from vaccinations because vaccination of children prevents illnesses. Consequently, this means that caregivers do not have to miss days at work and they do not need to spend extra money on doctors' visits and extra medication, to treat any illnesses of their children. Similarly having adequate hygiene practices can minimise infections for both caregivers and the child (WHO et al., 2018). In addition, having adequate and affordable healthcare services such as neonatal care, for caregivers to attend, is essential for good health and well-being. Thus, access to good affordable healthcare facilities is important particularly in the middle to low-class areas - where people in these communities often do not have the money to access good quality health care systems (Christiaensen & Hill, 2019). Having adequate health systems, will promote good well-being which in turn, promotes healthy situations for the developing child to not only survive, but also thrive (Bhutta et al., 2014). In turn, adequate health systems, can be beneficial to people outside of the parent child dyad, such as the broader family, peers and the community, only to mention a few.

Having access to health care centres are also beneficial for building relationships with a foundation of trust between parents and healthcare providers, as this lays the foundation for open communication between the pair (Allinson & Chaar, 2016). For example, parents can communicate their fear and anxiety they may have with healthcare workers, and healthcare workers in turn can supply information and offer advice. This is mutually beneficial as it helps with both prevention and cure of any illnesses; physical or mental. Meaning healthcare workers are able to spread information and awareness, and can contribute toward preventing possible illness or death. In essence, the good health component of the Nurturing Care Framework promotes the mental and physical health of parents and caregivers, as this ensures that they can provide the best possible nurturing care to connect with their child's needs, which consequently enables children to not only survive, but also thrive.

2.2.2. Adequate Nutrition

Nutrition during the formative years- the first 1000 days - is important not only for the survival of the developing foetus and baby, but also for the mother (UNICEF, 2017). For example, during pregnancy, women need to have enough micronutrients in their diet to ensure the development of the foetus occurs in the best way possible. While the importance of nutrition during the first 1000 days, is not new; the Nurturing Care Framework emphasises the convergence of stakeholders, governments, international organisations and people working together, to emphasise and ensure that nurturing care includes the importance of nutrition, food security, food safety, maternal and child health, as well as poverty alleviation and education (WHO et al., 2018).

The Nurturing Care Framework highlights that if the mother does not have enough micronutrients, they will need additional supplements such as iron as a means to substitute what her body cannot produce (WHO et al., 2018). In the event of woman not having enough micronutrients in her diet, this can negatively affect the development of the foetus. Inadequate

nutrition of the mother during pregnancy often results in undernourishment in-utero, which consequently causes stress on the developing foetus (Fall, 2013). This stress on the foetus can permanently influence the physiological growth and the development of the foetus (Coussons-Read, 2013). The development of the foetus will then adjust to the new environment in-utero, and the nutrients, or the lack thereof, will influence how the heart, brain and other essential organs develop (Fall, 2013). Therefore, adequate nutrition is not only important during the pregnancy period, it is important for both mother and child after birth as well, as the child continues to develop and the mother continues to supply the nutritional needs of the child.

The Nurturing Care Framework promotes the importance of breastfeeding, starting from birth to at least 6 months of age (WHO et al., 2018). Breastfeeding typically occurs between birth to six months exclusively, thereafter in combination with breastmilk, infants need food more frequently and foods which contain more micronutrient; which is essential for the growth of the infant and their brain development (Black, et al., 2008). This helps with supporting the physical development of the developing child and also their brain development (Fall, 2013). For years, research has proven that breastfeeding during the early years of life results in a reduced amount of child mortality, but it can also be beneficial in that breastfeeding forms both physical and emotional bonds between mother and child (Dieterich et al., 2013; Johnson, 2013; Kinsey & Hupcey, 2013). Breastfeeding promotes skin-to-skin contact, eye contact, which creates opportunities for affection and bonding in the parent-child relationship (Vijayalakshmi et al., 2015). This in turn has long-term benefits as it helps the child to feel safe and with time, may reduce social and behavioural problems (Winston & Chicot, 2016). Parents also learn to read their child's cues while breastfeeding, thus stimulating trust between the parent and child dyad. Therefore, ensuring adequate and early nutrition during the first 1000 days, not only helps the child develop optimally, but also reduces the intergenerational cycle of malnutrition, stunting as also low birth weights (UNICEF, 2017; WHO et al., 2018). The

long-term benefit of early and adequate nutrition is that it can reduce health risks such as diabetes, obesity, hypertension, only to mention a few (Schwarzenberg & Georgieff, 2018).

Another component for adequate nutrition particularly during the first 1000 days is food safety and food security (WHO et al., 2018). Food safety refers to how food is stored, handled and processed, as a means to prevent foodborne illnesses and infections (Uçar et al., 2016). This includes the routines and practices at every stage of the food production life cycle - including the preparation at the farms, stores as well as in the home. The way food is prepared and stored is particularly important during the first 1000 days, for both the mother and the developing child. During pregnancy, the mother's body goes through many physical and hormonal changes. Thus, her body requires extra vitamins, nutrients and minerals to help the baby develop optimally (West et al., 2018). These changes can also lead to a weaker immune system, which makes it difficult to fight off any infections and illnesses. Similarly, the developing baby also has a weak immune system as their bodies are still developing. Therefore, pregnant women need to protect themselves and their developing babies from any illnesses or infections which occur as a result of unsafe food (West et al., 2018). However, coupled with food safety, is food security.

Food security is when all people have physical, social and economic access to food that is sufficient, nutritious and safe (Gibson, 2012). This means that all people have their dietary needs and food preferences met. On a national level, South Africa is regarded as food secure, however, at a household level, the country is still regarded as food insecure (Stats SA, 2019). This means that there are still multiple people in the country who do not have food security. Many households do not have physical, social and economic means to access food as they need and prefer (Stats SA, 2019). The 2019 Stats SA report on food insecurity revealed that in 2017, 20% of South African households had inadequate access to sufficient, nutritious and safe food (Stats SA, 2019). This in turn means that people are not getting the nutrition they need. This

can be dangerous particularly for pregnant women and their developing babies, as it can cause developmental delays and other possible health risks for the developing child and the mother. Therefore, the adequate nutrition component of the Nurturing Care Framework aligns with the SDG's Goal 1, target 1.2 which aims to reduce the number of men, women and children living in poverty (WHO et al., 2018). It also aligns with Goal 2, target 2.2. This SDG target aims to end hunger by 2030, by ensuring that all people, particularly the poor, the vulnerable and infants; have safe, nutritious and sufficient food everyday (WHO et al., 2018).

2.2.3. Responsive Caregiving

During the first 1000 days, children are dependent upon their caregivers and to survive and thrive, they need caregivers who are responsive to their needs, their abilities and their interests. Thus, the third component of the nurturing care framework is *responsive caregiving*. The framework highlights that responsive caregiving speaks to the importance of observing and responding to the movements, sounds, gestures and verbal requests of the child (WHO et al., 2018). By meeting the developing child's physical needs- based on their rhythms of play- contributes to responsive care in a big way.

Responsive caregiving is bi-directional in the parent-child relationship as it includes healthy communication, interactions and both healthy and secure attachments between mother and child (Ladd & Parke, 2021). The WHO (2020) also recommends that all children, from birth until age three, should receive responsive caregiving and that their parents and primary caregivers should be supported in such a way that they are able to provide responsive caregiving. The Nurturing Care framework suggests that responsive caregiving acts as a way for parents and caregivers to protect children from injury and the negative effects of adversities (Luby et al., 2013; WHO et al., 2018). Additionally, responsive parents are also able to recognise and respond appropriately to illness as well as building trust in the parent-child dyad and social relationships with others. Therefore, being responsive goes beyond recognising the

needs and wants of children (WHO et al., 2018). The framework further highlights that acts' such as responsively feeding the baby, can be beneficial for ill infants and babies who have low weights. For example, when the mother responsively engages in the feeding process, she will be able to recognise and identify when her baby had enough food or that the baby is not consuming food as he/she should thus, the mother and caregiver can tell when the baby feels ill, and act appropriately- which could possibly prevent the situation from becoming worse. Similarly, responsive care and feeding of children, when necessary, has been associated with attachment in the mother-child relationship (Johnson, 2013; Tichelman, et al., 2019). This notion coincides with Bowlby's theory of attachment which highlights the importance of parent-child attachment and how it is beneficial for child development (Louw & Louw, 2014). In essence, the attachment theory suggests that children have an innate need to form attachment with others as this will them survive.

2.2.3.1. Parent-child attachment

Attachment refers to the affectional tie that binds people together (Louw & Louw, 2014). Within the parent-child relationship, attachment refers to the dynamic and mutual connection or bond between the parent and child (Bush & Peterson, 2013). Attachment also includes the pattern of emotional and behavioural interaction that develops over sometime when the infant and the caregiver interact, particularly in the context of the baby's need and efforts for attention and comfort. Thus, attachment theory formulated by Bowlby, stressed the fact that children need a warm, responsive and continuous relationship with at least one adult caregiver, often a parent, to develop appropriately (Louw & Louw, 2014). The attachment relationship between mother and child starts prenatally and continues after birth, throughout childhood (Sadock, Kaplan, & Sadock, 2007; Karakaş & Dağlı, 2019). Through continuous interaction with the same adults, a child starts to recognise their caregivers and they anticipate the behaviour of their primary caregiver, often their mother or father.

The child-parent relationship is not one-dimensional as problems may occur. In attachment relationships, other aspects of development do not exist in isolation from their context. For example, parents are not always by means to give their children positive reinforcement. They may not be able to give their child comfort or praise when the child does something right if the parent themselves are stressed about being unemployed. Numerous personal and interpersonal aspects may make it difficult for the parent to respond to the infant favourably, such as depression, substance abuse amongst other things. Therefore, it can be said that attachment-based parenting interventions tend to promote secure parent-child attachment relationships. This attachment relationship will in turn improve developmental outcomes of infants and children who are at risk of poor developmental outcomes. Similarly, these forms of interventions may also prevent possible problems and psychopathology (Louw & Louw, 2014). Therefore, the type of attachment in the parent-child relationship is dependent on numerous factors such as parental mental health, parenting styles, and life experiences only to mention a few. There are two types of attachment styles:

2.2.3.1.1. Secure attachment

Secure attachment is fostered if parents are sensitive and responsive, but not intrusive. Secure attachment in the parent-child relationship develops when the child perceives their parent or primary caregiver as reliable, responsive and consistent (Sanders & Morawska, 2018). This results in the child being confident to explore their environments (Sullivan et al., 2011). Sanders and Morawska (2018) concur that secure attachment enhances developmental outcomes such as self-regulation, empathy, and social competence; which consequently results in positive parent-child relationships.

It is during the first few years of life, that the parent is particularly responsible for the child's emotional regulation and they must respond to the child's emotional needs, in a consistent and nurturing manner, which facilitates the development of secure emotional attachment to the

parent or caregiver (Sanders & Morawska, 2018). A major component for secure and positive attachment in the parent-child relationship is responsiveness and sensitivity (Morris et al., 2017). This includes how sensitive a parent is toward the child and how well they respond to the physical and emotional needs of the child. By receiving a warm and constant relationship with a parent, the child can gain a sense of security and also gain resilience. Attachment is essential for building resilience, positive child development and child mental health (Alto & Petrenko, 2017).

Moreover, the attachment theory suggests that the child is predisposed to associate their parents as a haven of safety and security, whilst exploring the world (Karakaş & Dağlı, 2019); this coinciding with the Nurturing Care Framework. In turn, the parents' responses to this, helps mould the attachment relationship between the two. Thus, the child learns that if they cry, for example, their mother will respond by comforting them, thus secure attachment occurs. With this, the child becomes compassionate and regards others as reliable.

2.2.3.1.2. Insecure attachment

Insecure attachment is adopted when parents are unpredictable, unresponsive to the child's needs and unavailable (emotionally, physically etc). Insecure attachment can be in the form of *avoidant* parents who are for example emotionally distant; anxious or ambivalent parents who are often unavailable and unresponsive (National Collaborating Centre for Mental Health, 2015). For example, when the parent is intrusive, insensitive and unresponsive, the attachment is more likely to be insecure or avoidant. The child then becomes disorientated and often resorts to conflicting behaviours later in life (Karakaş & Dağlı, 2019).

2.2.3.1.3. Mother vs father attachment during the first 100 days of life

The parent-child relationship does not start at birth, but rather develops during pregnancy. Thus, prenatal attachment describes the relationship that develops between the parent (mother

and/or father) and the developing foetus (Vreeswijk, Maas, Rijk, & van Bakel, 2013). With time this relationship grows as the parent-child interactions become more and the child grows and develops. During pregnancy, the attachment and relationship between mother and child differ from that between the father and the child. Understandably, the mother has first-hand interaction and experiences with the developing foetus, which the father cannot experience in the same way. For example, during pregnancy, the mother can feel the child growing and moving. Simultaneously, her body also goes through changes. The mother can feel and interact with the developing foetus when he/she moves in-utero and vice versa. This in turn can be the foundation for the attachment in the mother-child relationship (da Rosa et al., 2021). For example, when the mother is anxious the developing baby can react and respond to that. In turn, the mother notices this, calms herself down and reassures the developing baby that everything will be okay. However, this does not mean that there is no interaction between the developing foetus and the father during pregnancy. Prenatal father and child attachment and bonding begins with the father listening to the child's heartbeat and communicating with the child such as reading to the developing foetus; as well as being present during the birthing process (da Rosa et al., 2021). When the baby is kicking or moving around in the mothers' womb, the father can read to or speak to the developing foetus. The baby will in turn also start to recognize the father's voice and upon birth, might recognize both the mother's and the father's voice. After birth the mother has a different attachment bond with the baby, for at least the first 6 months, she gets to breastfeed the baby, which the father cannot do. However, the father can be involved and still have a secure attachment with the child. For example, this can be done by burping the baby when the mother is done feeding. Similarly, both parents can interact with the child post-natal, through play and communication, only to mention a few.

2.2.4. Opportunities for early learning

For many years, people were of the assumption that children only start learning when they are aged 3 or 4, when they go to kindergarten or pre-school (National Research Council, 2015; WHO et al., 2018). However, more recent research has suggested that children start learning from birth through birth (WHO, 2018). For example, from the moment babies are born, they responding to the new environment. At birth when the umbilical cord is cut, babies learn how to breathe on their own. Similarly, at birth babies are able to hear, see, smell, and feel as they start to experience and make sense of the world. Therefore, the Nurturing Care Framework emphasises that opportunities for early learning are important as it sets the foundation for long-term well-being, learning and adapting well into adulthood (WHO et al., 2018).

The framework suggests that learning is innate which ensures that humans can adapt to different environments and their changes (WHO et al. 2018). This ability to adapt and change begins biologically from conception through a process called epigenesis (Shonkoff, 2012). However, in order to adapt positively, opportunities and appropriate stimulus (relationships with others) are needed. On an interpersonal level, people learn to acquire new skills and capacities after birth through interactions and relationships with others. This notion of acquiring new skills through interactions, concurs with the social learning theory by Bandura (1977), who states that children learn how to behave through observing others. For example, during the early years, babies make eye contact, they start smiling and imitating what they see and hear. Moreover, opportunities for early learning increase in the possibilities for optimal learning and development within the home and community setting. Through everyday routines and activities such as playing with common household items like tins and cups while the mother is making food, or speaking to the child during bath time, helps children learn that certain objects feel a certain way and make certain sounds, they also learn what it can be used for, and they learn how to speak (WHO et al., 2018). In accordance, the socio-cultural theory by

Vygotsky implies that social interaction is essential for learning; thus, parents who encourage their children to learn by engaging with them in learning activities through providing a variety of experiences in their day-to-day life (Holden, 2010; Whitebread & Bingham, 2013).

Similarly, when parents read to children or play with their children, this increases the opportunities for early learning and enhances school competency and performance (UNICEF, 2018). By reading to a child, parents are increasing the child's experience with both written and spoken language. Through interactions with others, children learn about other people and the world around them. They learn emotion regulation and how to express themselves when they need or want something. Hence, having an environment that is language rich and provides play opportunities, enhance opportunities for early learning. Furthermore, to reach optimal development, these environments need to be secure and safe.

2.2.5. Safety and security

The Nurturing Care Framework stresses that during the early years of life, children are unable to care for or protect themselves and by being vulnerable to unanticipated harm thus they are dependent on their primary caregivers to keep them safe and secure (Department of Social Development, 2019, WHO et al., 2018). Optimal safety and security create environments in which children can grow optimally which creates a long-term investment for well-being in adulthood. Safety and security need to happen at various levels to ensure that everyone within the family and the community, live in environments that are not only habitable, but also free from violence, harm, and unsanitary living conditions. Pregnant women and young children are particularly at risk when they are in environments which are not safe and secure (Landrigan et al., 2017; van den Hooven et al., 2011). For example, if pregnant a woman is in an environment that is filled with pollution or lives in environments which are riddle by poverty, this can negatively affect both her health and that of the child. Consequently, this can affect development negatively, and be associated with a number of things such as bad health. In the

event of unsafe environments, where children are exposed to violence, abuse or abandonment, children can experience extreme fear (WHO et al., 2018). This in turn can affect how children develop and ultimately how they respond to things as they progress through life. Consequently, this can lead to emotional, mental and social disturbances (WHO et al., 2018). The framework suggests that in these instances, children will not trust adults, they can become socially withdrawn, and they can act aggressively toward others when in fear (WHO et al., 2018). Similarly, if parents and primary caregivers themselves do not feel safe, this fear can be projected onto their children, which affects their developmental trajectories as they progress through life. Therefore, the Nurturing Care Framework suggests that the parents and primary caregivers need to feel safe and secure and this can be done by ensuring that they are getting the help that they need. In safe and secure environments, they are in environments that enable them to be nurturing and responsive toward their children and others. Thus, to ensure nurturing care, good mental health of parents and primary caregivers need to be ensured as a means to avoid maltreatment of their children (WHO et al., 2018).

2.3. Mental health

The framework also speaks to parental mental health and the role it plays on child development in the first 1000 days. The framework highlights that the mental health problems parents face, can disrupt parenting and caregiving, which consequently affects the child. Mental health refers to a state of well-being where individuals are able to cope with the normal pressures and challenges in life in and they can still be productive and have a good quality of life in which they can contribute to society (Butler et al., 2014). Having good mental health, includes an individuals' ability to feel and express a range of positive emotions and carry out everyday tasks and have healthy relationships with others. Therefore, by having good mental health, parents and caregivers can provide nurturing responsive care (WHO et al., 2018). Having good mental health also enables that caregivers and parents, can empathise with their children, but

also to regulate and manage their own emotions and reactions regarding the baby's dependence on them (WHO et al., 2018).

On the contrary, mental health illness includes changes in behaviour, emotion and is often associated with distress which influences daily functioning (Butler et al., 2014). Mental illness or mental health problems are often present in women who have recently given birth with the most common being stress, depression, anxiety and adjustment disorders (Fisher et al., 2017; Muzik & Borovska, 2010). The Nurturing Care Framework suggests that these are often the most common causes of pregnancy-related morbidity (WHO et al., 2018). Furthermore, mental health problems are often more prevalent in resource-constrained low- and middle-income communities (WHO et al., 2018). In these communities it is more likely that people have socioeconomic stressors, pregnancies are often unplanned and there is often a lack of support from family and partners (Murphy et al., 2017). Therefore, the Nurturing Care Framework highlights that, interventions should include education, employment which supplies a secure source of income, and proper support structures from families and friends (WHO et al., 2018). Moreover, the Framework also emphasises that not only mothers suffer from mental health problems during the first 1000 days, but fathers too (Habib, 2012; WHO et al., 2018). The framework emphasises that like mothers, fathers also suffer from depression, both pre-and post-natally which can influence their relationship with their partners their parenting styles (Paulson & Bazemore, 2010; Fisher, 2017). Women are more frequently affected by internal mental disorders such as depression, whereas men are more frequently affected by externalizing disorders such as substance abuse (Fisher, 2017). Paternal mental health problems, can impact how a father interacts with his child and also the child's mental health (Fisher, 2017). Research further suggests that paternal mental health problems such as anxiety, is often associated with over involvement (Möller et al., 2015). For example, fathers are over protective and very controlling of their child's behaviour in extreme measures.

Therefore, mental health problems such as stress, depression and anxiety- only to mention a few- have been linked to health risks and problems with the developing child. For example, if parents are depressed, they often tend to spend less time attending to their children and their needs. Parents who are depressed, also go through behavioural changes, such as not eating enough, having sleep disturbances and reduced physical activity (Coussons-Read, 2013). Parents with mental health issues often have irregular moods which lead to stressful and hostile environments for both parents and children which consequently negatively impacts child development (Habib, 2012), as parents are more likely to have difficulty being sensitive toward their developing child's wants and needs (Cleaver et al., 2011). Consequently, young children who have parents with parental mental health problems are also more likely to have social and emotional issues (Ramchandani, 2009).

2.4. Conclusion

The purpose of the Nurturing Care Framework is to stress the importance of the period from conception until the child is 2 years of age. The framework emphasises that the key component to optimise the developmental potential of children is for nurturing care practices to start early, rather than later. The first 1000 days is a crucial period for child development. This is the period in which rapid growth and brain development occur, which make children vulnerable to harsh conditions, which consequently negatively impacts development and result in long-term difficulties. Adequate health and nutrition during the first 1000 days promote development however this might not be sufficient for children to reach their full developmental potential. To reach optimal development, in accompaniment with adequate health and nutrition, children need to experience responsive caregiving, have early learning opportunities, as well as safety and security.

CHAPTER 3

LITERATURE REVIEW

3.1. Introduction

There is a global consensus among childhood researchers, policymakers and practitioners that parenting has a profound effect on child development. During the formative years of life in particular- the First 1000 days- children are dependent on their parents. Therefore, positive and healthy parenting results in better outcomes for child development and as they progress through life. This literature review examines nurturing care, responsive caregiving, parental involvement, parenting styles and practices and parental mental health; and explores how these factors influence child development within the first 1000 days globally and specifically in South Africa.

3.2. The First 1000 days

The quality of early experiences during the formative years plays a huge role in how the child develops. Living a healthy lifestyle can have benefits that extend beyond the present and the individual. Research on parenting and child development has shown that promoting health preconception, can be beneficial to both the parents and the children; as it will prevent possible health problems in the future (Barker et al., 2018; Stephenson et al., 2018). Therefore, optimising both men's and women's health and promoting healthier habits before conception, will result in promoting healthy development for both the parent and the developing foetus during pregnancy. For example, if parents have good nutrition before pregnancy, they will likely continue to do so when pregnant. Therefore, it is beneficial as this reduces the risk of malnutrition and infections in the developing child, which in turn influences the child mortality rates and child development (Bhutta et al., 2017; WHO et al., 2018). This however needs to continue during and after pregnancy- which equates to the first 1000 days.

The First 1000 days spans from the period of conception (270 days of pregnancy) and through the first 2 years after birth (365 days + 365 days) (UNICEF, 2017). The term “the First 1000 days” and its importance gained momentum in 2008 when the Lancet journal published a series on maternal and child undernourishment. This series highlighted that nutrition interventions should focus not only on the first 2 years of a child’s life, but also pregnancy (Pentecost & Ross, 2019). Since then, the First 1000 days has gained momentum and focused on more than just the importance of nutrition during this period. The first 1000 days is now considered as all-encompassing in that it is a window of opportunity for setting the foundation for health, well-being, learning and productivity for a child (WHO et al., 2018; Lake et al., 2019). Research suggests that the first 1000 days is crucial for development because what happens during this period, determines how the child develops and the impact it will have on the future of the child (Holt & Mikati, 2011; Rayna & Laever, 2011; Save the Children, 2017, UNICEF, 2017). Moreover, the First 1000 days is divided into three different phases namely the:

3.2.1. Prenatal phase

The prenatal period ranges from before (pre-) birth (natal) (Rogers et al., 2020) and continues until birth. This stage is believed to be the most important period for structural and functional growth (Mulder & Visser, 2016). As the development is completely dependent on the mother and how she cares for herself and the developing foetus, the genetic and environmental factors affecting the mother, can in turn affect how the foetus develops. The structural and functional growth during this period has both short- and long-term outcomes (UNICEF, 2017), which will be explained in more detail below. Furthermore, maternal-related abnormalities or complications often occur as a result of factors such as but are not limited to, the mothers’ age, health (mental and physical) and the environment. Consequently, this impacts child development as well. To gain a better understanding of development during the prenatal phase,

the different stages of which it comprises, needs to be explored. Thus, the prenatal phase can further be divided into three stages namely:

- 1) The *germinal stage* is the shortest stage of development. It lasts for approximately one to two weeks. This is the conception stage which begins with fertilization and ending with implantation of the egg in the endometrium of the uterus (Dean & Grizzle, 2011; Wakim & Grewal, 2021). This stage consists of different processes which enable the egg and the sperm to form a zygote, which then develops into an embryo. During the germinal stage of development, the placenta is formed which connects to the embryo and the umbilical cord; this, in turn allows for food and oxygen to circulate to the developing foetus and get rid of the waste (Dean & Grizzle, 2011).
- 2) Thereafter at the start of the third week until week 8, is the *embryonic stage* of development, which is a crucial stage of development (Dean & Grizzle, 2011; Wakim & Grewal, 2021). During this stage, the implanted organism now known as an embryo, undergoes developmental changes such as the development of the brain, heart ventricles, eyes, arms and sexual organs start to develop. The internal organs such as the liver, lungs, pancreas and kidneys not only start to develop, but they start to fulfil part of their function (Louw & Louw, 2014; Wakim & Grewal, 2021). At the end of this embryonic stage, all essential internal organs and external structures have developed, and the embryo is now referred to as a foetus. Thereafter the embryo becomes a foetus.
- 3) From the 9th week of pregnancy until birth is regarded as the *foetal stage* (Wakim & Grewal, 2021). This stage is the longest stage of the prenatal period. During this stage, the organs and systems develop further, begin to function more effectively and become more organised (Berk, 2013) as they are relatively well developed by the seventh month

(Louw & Louw, 2014). There is also rapid body growth, further skeletal development and an increase in body fat (Wakim & Grewal, 2021).

3.2.2. Neonatal Phase

The neonatal phase is a four-week period, which starts at birth until the baby (neonate) is 1 month old (Wakim & Grewal, 2021). This period is also known as the perinatal stage (Garcia, & Yim, 2017). During this phase, the new born child undergoes physiological changes as he/she adapts to the new environment. This is the period in which the most dramatic physiologic changes occur in a person's development (Doherty, Hu, & Salik, 2020). Some of these changes include changes to the respiratory systems and cardiovascular systems that occur almost immediately after birth. For example, upon breathing in their first breath after birth, several changes occur in the new born baby's lungs and circulatory system. Once the baby is born and the umbilical cord is clipped, the first breathe of life is taken and no longer depends on the mother to breathe (Wakim & Grewal, 2021). Similarly, at birth neonates also go through sensory changes. At birth, there is a decrease in environmental temperatures which is a major stimulus of breathing. As the oxygen pressure now flows through the blood differently than it did during pregnancy, the nerve endings of the skin are also stimulated (Wakim & Grewal, 2021). Thus, the skin of the baby gets colour.

Moreover, during the neonatal phase, senses such as the sense of touch are already well developed in neonates. For example, babies often respond to soft strokes, gentle rocking or sucking their fingers or pacifiers, only to mention a few. Neonates also experience visual and auditory changes (Wakim & Grewal, 2021). At birth, the baby is now exposed to light and sound, at a different rate than he/she is during pregnancy. They also focus on whatever is directly in-front of them. They also start to respond to voices- typically soft soothing voices of their mother, for example, can calm the neonate, however, the opposite is also true. The neonate

responds differently by crying if people are loud. With this, after the first four weeks, the neonate enters the infancy phase and is referred to as an infant.

3.2.3. Infancy Phase

The infancy phase of the first 1000 days, follows the neonatal stage. This period consists of the first year of life, in which rapid growth takes place (WHO et al., 2018). During infancy, language skills and motor skills develop (Wakim & Grewal, 2021). Infants typically start to babble and communicate via non-verbal signals such as facial expressions and body language. For example, when experiencing pain or displeasure, the child will communicate by crying and/or screaming. Similarly, when experiencing happiness, they indicate this by smiling, laughing or squealing with excitement. This is essential for the parent-child relationship as the parents' response/action to this, will influence the trust in the parents and the world (WHO et al., 2018; Winston & Chicot, 2016). Thus, if parents soothe the infant with cuddles, a comfort toy or with food (warm bottle), the child will gain a sense of attachment and trust to their parent and/or the world. Moreover, infants are also able to hold their heads steady, roll over and later start moving and crawling as they become more aware of their surroundings. This shows that during infancy, babies are not merely passive communicators who only receive information. Instead, they can actively make sense of the information observed and/or heard (Csibra, & Shamsudheen, 2015). Furthermore, during this period, the infant also starts to develop their personality through their behaviour (National Institute of Mental Health, 2020). For example, parents can notice what their child likes, and what they don't and what makes them smile. This period is also essential for optimal nutrition to ensure normalcy in child development and a lack of adequate nutrition, can also affect brain development and brain functioning; which in turn, could affect the overall development of the child (UNICEF, 2017). Thus, the aforementioned, indicates how many phases of development a person goes through, particularly during the formative years- the first 1000 days- highlighting its importance.

3.3 The importance of the first 1000 days of life

During the early years of development, specifically the first 1000 days, the experiences and environments in which children develop, influences the quality of their development. Therefore, the first 1000 days is important as it affects multiple aspects of child development. The developing child in the first 1000 days can be seen in the following way:

3.3.1. Cognitive development

The formative years in the first 1000 days is a period when the brain is developing at a faster pace than at any other point in a person's life. The brain's ability to develop and change over time is at its peak during the first 1000 days and this ability decreases with time. Brain development starts in the first few weeks of conception (Lagercrantz, 2016; WHO et al., 2018) and within the first 8 weeks of pregnancy, the embryonic period, most of the structural features of the brain develops. At birth, the child already has all the neurons they will ever have during adulthood (Lagercrantz, 2016) and by age 2, approximately 80% of their brain is already developed (WHO, 2018). Furthermore, the development of both simple and more complex neural pathways is important during this period. These new neural pathways are formed through life experiences and everyday practices such as tasting, seeing, touching, hearing or smelling (Tokuhamma-Espinosa, 2010). Thus, this period is crucial for cognitive development for survival and thriving (WHO et al., 2018).

3.3.2. Physical development

During the first 1000 days, the developing child goes through rapid physical growth at such a rate that neglect can have serious consequences for the development of the child. Physical development during the pregnancy period includes the growth of the foetus in size, and as it grows, movement starts to occur within the womb. However, after birth and the months that follow, all basic motor skills and movement abilities develop during these formative years which include things such as important reflexes that they will use for the rest of their life.

During this period, the child develops reflexes such as breathing reflexes which include, hiccups, sneezing, suckling reflexes which occur when something touched their lips (American Academy of Pediatrics, 2019). They also undergo involuntary movements as a response to stimulation (American Academy of Pediatrics, 2019). Moving from the reflexes, the child moves to more advanced motor functioning which includes being able to hold their head up, they learn to sit up, crawl, pull up and eventually they start walking. With this, the child also develops socially and emotionally.

3.3.3. Social and emotional development

The social and emotional compositions of a child, is often influenced by how a child develops. Research has shown that if a child spends time in less stimulating environments, they are more likely to experience cognitive, social and/or behavioural delays compared to those who spend time in more stimulating environments (Pem, 2015). A few months after birth, babies start to distinguish different emotions expressed by others and they begin to mimic those expressions. Thus, children tend to actively respond to changes in their environment by using prompts from their mother's physical and mental state (Moore et al., 2017). For example, if the mother smiles at the baby, the baby will recognize that happiness is being shown, and the baby will smile back. Similarly, at approximately 8 months, babies tend to experience separation anxiety when they are separated from their primary caregivers such as their parents (Herren et al., 2013). However, with time, this separation anxiety often disappears as the child begins to develop trust by understanding that their parent goes away, but they do come back. Thus, during the first 1000 days, children are dependent on the care they receive and their growth depends on the capacity of their parents (Pem, 2015).

3.4. Parenting

Many things that influence child development, one of the most important being the quality of parenting children receive. Parenting refers to the process of raising and educating the

developing, typically from pregnancy until adulthood (Amos, 2013). The role of parenting can be very fulfilling to some however it can also be challenging (Sanders & Turner, 2018). Parenting is an intergenerational process, as parenting practices, parenting styles, parenting attitudes and behaviours are shared and passed down from one generation to another (Madden et al., 2015). Thus, most parents learn how to parent, from their parents.

Parenting differs between families, households and socioeconomic circumstances. Consequently, children are raised in diverse situations which do not provide equal opportunities for children to survive and thrive to their optimal development (Marmot & Bell, 2012). Parenting involves several functions to raise a child. This involves things such as nurturance, care, education and socialization of children amongst others. According to Sanders and Marowska (2018) the core functions of parenting- particularly during the first 1000 days- consist of but are not limited to, sustenance and emotional care of children. As a parent, one of the main functions is to see to the basic needs of the child. This can be done by providing the developing child with adequate nutrients for the developmental stage that they are in. parents also need to provide shelter and an environment that is conducive for healthy living. In essence, this is important to sustain the child for survival and development.

With this, parenting is not one dimensional and is not always as simple as the aforementioned. The process of parenting has many forms and differs from situation to situation. The parent-child relationship comes with its challenges and at times, interventions are necessary. The parenting practices that parents make use of contributes to child development. Parenting practices-which are connected to behaviours parent use to prepare their child to socialize- are intended to promote child development by showing involvement by partaking in practices such as communicating, playing with the child and seeing to their physical and emotional needs (Whitebread & Bingham, 2013). Parents who use these effective parenting practices help their child reach their optimal behavioural, cognitive, emotional and social development, by

ensuring that they are healthy, safe and happy amongst others. This, however, is also dependent on the type of parenting style the parent decides to use.

3.5. Parenting styles

Parenting styles are necessary for establishing attachment between the parent and child as well as the outcomes of health and well-being for the child later in life (Moore et al., 2017). Parenting styles involve the typical way parents think, feel and behave in terms of child-rearing (Levine, 2011). The parenting styles used to rear and socialize children, can either hinder or promote the child's mental and social health. In 1967, Diana Baumrind identified different parenting styles namely authoritative, authoritarian and permissive parenting; later expanded to include uninvolved and neglectful parenting (see fig. 1) (Smetana, 2017).

| Responsiveness | Demandingness | | |
|----------------|---------------|---------------|-----------------------|
| | | High | Low |
| | High | Authoritative | Permissive |
| | Low | Authoritarian | Uninvolved/neglecting |

Fig. 1. *Parenting Styles grid by Baumrind*

3.5.1. Permissive parenting

Permissive parenting occurs when parents have no demandingness but high responsive behaviour as they are of the perception that no rules are beneficial to the child's development and they have very little expectation for appropriate behaviour (Hoskins, 2014; Smetana, 2017). This type of parenting is also known as indulgent parenting (Bornstein & Zlotnik, 2008; Hunt, 2013). Permissive parents have no demandingness for self-control but high responsive and nurturing behaviour as they are of the perceptions that no rules and very little expectation for appropriate behaviour are beneficial to the child's development (Kuppens, & Ceulemans,

2019, Roman et al., 2016). This type of parenting can however be detrimental to positive child outcomes (Hunt, 2013). Children who have permissive parents have been associated with negative developmental outcomes (Kuppens, & Ceulemans, 2019). For example, children with permissive parents tend to high self-esteem however they do have impulsive tendencies (Roman et al., 2016). They also tend to be spoilt and parents have very little control (Roman et al., 2016). These parents also tend to solve problems with material possessions which link to instant gratification, thus hindering the child's ability to understand that not everything can be solved instantly. As a result, children with permissive parents tend to be immature, antisocial and often partake in criminal activities (Johnson, 2016). Therefore, permissive parenting often results in a lack of self-control, respect and consideration and empathy for others or they display antisocial behaviour (Roman et al., 2016).

3.5.2. Uninvolved/ Neglecting parenting

Unlike permissive parenting, uninvolved/neglectful parenting includes low levels of both responsive and demanding behaviour (Hoskins, 2014). Uninvolved parents do not monitor or supervise their child's behaviour (Baumrind, Larzelere, & Ownes, 2010). They also do not encourage or support self-regulation for their children. They are disengaged from all responsibilities of raising and caring for a child- they do not see to the needs of their children (Baumrind et al., 2010). Uninvolved parents lack attachment or closeness with their children. This lack of parental involvement, which also results in a lack of parent-child attachment, can have negative effects on child development (Roman et al., 2016). For example, children who have uninvolved/neglectful parents will often acquire delinquent behaviour and are more likely to be at higher risk of violent behaviour, as they were never taught boundaries and that actions have consequences. Children raised in households with uninvolved/neglecting parenting styles do not develop an emotional connection with their parents as they receive a lack of affection

and attention. In turn, this could result in low self-esteem or emotional neediness in different relationships they have in their life (Roman et al., 2016).

3.5.3. Authoritarian parenting

Authoritarian parenting has more demanding expectations and less responsive behaviour (Hoskin, 2014; Rothrauff & Cooney, 2009; Smetana, 2017). They display strictness, neglect, control, punishment, and are unsupportive which often leads to child behavioural and emotional problems later in life (Moore et al. 2017). This style of parenting is very demanding on behavioural obedience and very little nurturance. These parents, employ strict rules, and in the case where children do not comply, they are punished (Akinsola, 2011). Authoritarian parents, expect that rules are to be obeyed without explanation about rules (Cherry, 2015; Sawar, 2016). Authoritarian parents do not show much love or affection toward their children and they are not very nurturing or approachable. These parents also tend to be unresponsive to the desired need of their growing children. They also discourage open communication in the parent-child relationship. This however does not mean that they do not love their children.

Consequently, authoritarian parenting may hinder child maturation and it encourages less positive child development (Johnson, 2016). Growing up in households where the parents tend to conform to the authoritarian parenting style often results in the child experiencing a delay in development or stagnation. Grolnick (2003), states that pre-school children who come from households in which the parents are authoritarian, often tend to be moody, unhappy and did not get along well with their peers. Also, it was found that they were low in achievement motivation and social assertion later in life (Grolnick, 2003).

Authoritarian parenting style is also associated with low levels of self-confidence and coping mechanisms in children as children are unable to explore their capabilities and social interactions, they are also discontent and do not trust others (Johnson, 2016), Furthermore,

research suggest that some parents tend to use different parenting styles for girls and boys. For example, girls are more likely to receive parenting which has less physical punishment, compared to boys who receive more direct and physical punishment particularly from their fathers (Kawabata et al., 2011). Similarly, boys are more likely to have freedom whereas girls have more rules (Bi et al., 2018).

3.5.4. Authoritative parenting

Authoritative parenting has a balance of parental control and warmth. This style of parenting includes high levels of responsiveness and demandingness (Hoskins, 2014; Johnson, 2016, Roman et al., 2016; Smetana, 2017). Parents are warm and sensitive to the child's needs, while constantly considering the child's age and maturity when forming behavioural expectations (Rothrauff & Cooney, 2009). Authoritative parenting promotes child autonomy by encouraging verbal give-and-take between the pair thus encouraging involvement (Sawar, 2016). Similarly, discipline is incorporated through communication based on reasoning and explanation. For example, this style of parenting does not shy away from saying 'no' when need be, however, they do so by having open conversations explaining why or why not. With this, authoritative parenting is the most favoured parenting style for rearing children as this style is less likely to have psychological problems as they develop (Bornstein & Zlotnik, 2008; Sawar, 2016). Authoritative parents provide warm and trusting environments which influence child development. It also strengthens the attachment between the parent and the child, as trust is fostered. Consequently, this style of parenting is more likely to help children have better self-esteem and self-image, higher levels of self-reliance, and enables them to have effective coping strategies (Johnson, 2016). Children who were raised with authoritative parents tend to be socially and intellectually well developed and are less anxious than their peers (Johnson, 2016). They also tend to be more empathetic toward their peers. Emotional reliability, security and a strong attachment are therefore seen as essentials element in the development of empathy.

Moreover, Grolnick (2006) states that pre-school children who come from homes in which authoritative parenting is practiced, tend to be more energetic, socially outgoing and independent. Therefore, it can be said that authoritative parents embrace and foster nurturing care.

3.6. Nurturing Care in parent-child relationships

Nurturing care is an environment sensitive to children's health and nutritional needs provides protection from harm, includes opportunities for early learning and interactions with others that are emotionally supportive, responsive and developmentally stimulating (Britto, et al, 2017). Nurturing care is essential for positive parenting and optimal child outcomes.

3.6.1. Contextualizing Nurturing Care

The parent-child relationship can be defined as the quality of the emotional bond between the child and his or her parent/s; and the degree to which the mutual bond between them is sustained over time (Bush & Peterson, 2013; Schwarzenberg et al., 2018; WHO et al., 2018). The development of a child, particularly during the early years of life, is dependent on the child's parents or caregivers. Thus, the parents and the child's primary caregivers play a significant role in the child's learning and development. It is the parent's responsibility to provide a stimulating environment in which caregiving routines are appreciated as opportunities to develop the relationship with the child (Mputle, 2019; WHO et al., 2018). The parent-child relationship during the child's early years of life is essential in that it is the time, where basic trust or mistrust is established. It is through their experiences with caregivers and parents where children receive insight into the world, how it functions and how they should progress through life (Whitebread & Bingham, 2013). Therefore, positive interactions and nurturing care between the parent-child dynamic can occur through things such as interactive play and reading particularly during early childhood. Through these positive interactions,

parents are not only improving the quality of the parent-child relationship but also improving the language and cognitive development of the child (Weisberg et al., 2013).

Furthermore, research suggests that parenting goes beyond seeing to a child's physical needs as it also involves nurturance and encompassing emotional and mental well-being of self and children. Positive and healthy parenting results in better outcomes for children and this, in turn, support their resilience ability when they are faced with adversity (Alto & Petrenko, 2017; Sanders & Morawska 2018; Slogrove et al., 2020; WHO, 2018). Children who have sensitive and nurturing parents during the developmental years are more likely to show fewer behavioural and mental problems while also being more likely to be social and successful in school, later in life (Moore et al., 2017; National Research Council & Institute of Medicine, 2009). Therefore, nurturing care in the parent-child relationship is encouraged.

Nurturing care refers to environments that are stable, sensitive and responsive to the health and needs (nutritional) of a child; as well as what protects them from harm and provides the child with opportunities for early learning, and interactions with others that are developmentally stimulating and emotionally supportive (Britto et al., 2017; WHO et al., 2018). These nurturing behaviours are the responsibility of the primary caregivers, which often include both the mother and the father. Therefore, it is the responsibility of both mother and father to create secure environments, nurturing environments in which to raise their child/ren. The mother often has a more direct role in providing nurturing care, but that does not mean that the father cannot provide nurturing care to his child. Nurturing behaviours can include but are not limited to, spending time with the baby, being fully present and having shared affection through eye contact or hugs and being sensitive towards the child (Lachman, et al., 2019). Thus, for nurturing care to be effective, it needs to occur in accompaniment with the following:

3.6.2. Responsive caregiving

Responsiveness refers to the parent's ability to be affectionate and warm, creating creative play and the quality of their interaction with their child as a response to child distress (Brophy-Herb et al., 2011; Johnson, 2013). Thus, responsive caregiving begins with parents being aware of how their children communicate their needs and interests. It includes observing and responding to the way the child moves, sounds and the gestures they make (WHO et al, 2018). During the first 1000 days, communication and engagement between parent and child (aged 0-2years) are expressed through cuddling, eye contact and gestures. This mutual parent-child interaction creates an emotional bond and helps the child understand the world and what it encompasses (WHO et al., 2018). In accordance, Brophy-Herb et al. (2011) suggests that parental responsiveness is associated with socio-emotional competencies in toddlers, and less responsiveness in the parent-child relationship results in fewer social behaviours in toddlers. It also helps with building trust and social relationships (WHO et al., 2018). Responsive caregiving helps parents protect their children from injury and the negative effects of adversity and from developing psychopathology later in life (Slogrove et al., 2020; WHO, 2018). Thus, for parents to be responsive and nurturing, they need to be involved.

3.6.3. Parental Involvement

During the formative years, parents and/or primary caregiver are typically the people with whom the child spends most of their time; thus, making their involvement or lack thereof a crucial factor in child development. Parental involvement refers to a process through which parents participate meaningfully with their child (Myeko, 2000; Whitebread & Bingham, 2013). Parent involvement enables teaching to occur both before and beyond the period of which the child goes to school later in life. Parents who are involved are more aware of their child's competencies, which areas are lacking and which areas require more work to improve

confidence and abilities (Sheehan et al., 2017). They can extend the learning process into everyday practices which happen in the home and elsewhere. Therefore, parental involvement during the formative years will help improve learning outcomes for the child by ensuring that they have all the support needed (Sheehan et al., 2017), and consequently improves parent-child relationships. The extensive involvement of the parent can also lead to information being shared which can better meet the needs of the child and/or the family as a whole.

3.6.3.1. Parental involvement during the first 1000 days of life

Parental involvement, particularly during the first 1000 days, is a key component in child development outcomes. Children who have secure and positive relationships with their parents tend to thrive better as they progress through life. Since the first 1000 days is the foundation for opportunities, growth and learning, the role of the mother is particularly important. During pregnancy, the mother and her well-being are crucial in how the child develops. Her body encompasses and grows the foetus hence, the mother must do her best to ensure that she is healthy, which in turn results in a healthy developing foetus and later a baby. After birth and at least the first few months of a child's life, the mother is responsible for the developing babies' nutritional needs, done mainly by breastfeeding (UNICEF, 2017, WHO et al., 2018). During this period, as a means to be involved and develop a bond with a child, the mother is encouraged to have skin-skin contact with the child. Mothers are also encouraged to be fully present and look at, speak to and cuddle up with their child as a means to build a sense of security for that child. This however does not mean that the father cannot and should not be involved early in the child's life.

Parental involvement of both the mother and the father starts before pregnancy, continues during and should continue after birth as the child progresses and develops. Before and during the pregnancy, the father also plays an important role in the development of the child. Traditionally, the father's main role was to be the financial provider of the family (Madhavan

et al., 2014). For many years, fathers spent a lot less time with their children as they had to go to work, whilst many mothers stayed home with the children. However, with time, there has been a shift in family dynamics in the home where mothers are now entering the workplace outside of the home and more fathers are staying at home (Rushing & Powell 2015), or both parents work full-time jobs.

Additionally, alongside the mother, the father plays a role in the decision-making process from family planning to the impact of pregnancy outcomes (Alio et al., 2013). Together they make decisions based on which type of contraception should be used and also as a means to help protect the woman from any possible sexually transmitted infections which can negatively impact, both the mother and the developing child should they get pregnant. Furthermore, during pregnancy, the father also plays a significant role in maternal well-being. For example, fathers can support mothers emotionally and physically, as their body undergoes significant changes as the baby develops in-utero. They can encourage healthy behaviours such as seeking prenatal care, eating healthier and taking prenatal vitamins. They can also help with managing the mother's anxiety and stress during this period, should she have any.

The father-child relationship can have beneficial outcomes for child development. During the first 1000 days, the relationship the father has with the child starts and can grow into a lifelong-relationship. During the formative years, father involvement takes place in the form of, but not limited to, going to doctors' appointments with the mother, both before and during pregnancy, as well as after birth (Yogman & Garfield, 2016). Most fathers are also present for the birth of their child, this acting as a form of father involvement too. Research suggests that 3 days post-partum, fathers typically begin to build an emotional attachment with their child (Chen et al., 2019). Furthermore, skin-to-skin contact between father and child, builds the attachment between the pair, and less crying from the baby, they become tired sooner and the child seemed

to have less rooting and sucking, and also reduce any anxiety in the parent-child dyad (Chen et al., 2019).

Father involvement during the formative years is also beneficial for the child's psychological well-being and social behaviour (Darwin et al., 2017). Father involvement is often described or the expectations thereof are often different from that of maternal involvement. However, fathers are just as capable as mothers to be involved emotionally and behaving sensitively and responsively with their child. A father who is nurturing not only builds close relations with their child but also promotes the child's self-worth (Chen et al., 2017). Children who have fathers who are involved from birth are more likely to be emotionally secure and confident in themselves and in exploring their surroundings (Yagan Güder & Ata, 2018). Fathers' who are warm, show high levels of affection toward their children and who plays with their child, are enabling more secure attachments with their child. These children also tend to be more social with other children and less likely to express disruptive behaviour (Yagan Güder & Ata, 2018). Through these interactions, such as playing with their father, children learn how to regulate their emotions and behaviour. Moreover, involved fathers also promote independence as fathers often tend to push achievement whereas mothers are more likely to promote nurturance. However, fathers often tend to spend less time with their children, particularly during the early years, than mothers do. The reasons for this would vary but things such as work and even distance play a crucial role in the father-child relationship and level of paternal involvement. Another common reason could be that the mother and the father are often not married, which thus means that the father does not live with the mother and infant, thus meaning that they automatically spend less time with the child, unlike the mother who is with the child more often than not, particularly during the first 1000 days. With this said, by being involved parents enhance chances of positive parent-child attachment relationships.

3.7. The first 1000 days in the South African context

Previously research based on the first 1000 days focused on nutrition and the effects of malnutrition within this period (Western Cape Department of health Government, 2017). However, with time, research has expanded and included the importance of cognitive stimulation and its linkage to language development, mental disorders, and problem-solving abilities, amongst others (WHO et al., 2018). The first 1000 days in South Africa has become more recognised over the past few years. In the Western Cape, the Western Cape Government launched the “First 1000 days” initiative in 2016 (Pentecost & Ross, 2019). This initiative focuses not only on the importance of nutrition but also the importance of nurturing environments, play and mother-child bonding (Western Cape Department of health Government, 2017). However, despite this initiative, the first 1000 days period in South Africa is faced with social and environmental factors, which impact healthy development of children. These social and environmental factors include but are not limited to poverty, violence, crime, inadequate education, drug exposure, and HIV/AIDS infections (Donald, 2013; Department of Social Development, 2011).

For years, research has shown that children under the age of 5, are not reaching their developmental potential as a result of numerous reasons which include but are not limited to poverty, un-stimulating home environments, inadequate nutrition and health care (Lucas et al., 2018). A 2017 international study called “Stolen Childhood” conducted by Save the Children, indicated that 156 million children under the age of 5 have stunted growth of which 23.6% are South African children. More recent research revealed that 57.9% of children under 5 are deprived of child development and 54.4% are deprived of health (StatsSA, 2020). Due to the high prevalence of poverty in South Africa, children are often at risk of hunger, malnutrition and food insecurity. Consequently, the absence of inadequate nutrition negatively impacts early childhood development (UNICEF, 2017). This affects the child’s ability to reach their

developmental potential, which has a rippling effect as it hinders the child's ability to not only survive, but thrive as they progress through life.

Furthermore, for years the South African mortality rate for children under the age of 5 has been high. However, more recent research indicated that the mortality rate of children under 5 has declined over the years. In 2002, the under 5 mortality rates was estimated at 75.3 child deaths per 1 000 live births, 44 per under 5 years old child deaths per day in 2017 and in 2020, this declined to 34.1 child deaths per 1 000 live births (Dorrington et al., 2018; StatsSA, 2020). Similarly, maternal health care in South Africa has also seemed to have improved with time. According to the 2020 StatsSA report, women who attended the first trimester prenatal clinic visits have increased from 28% in 1998 to 47% in 2016. Young aged 15-19 women who have approximately 4 or more prenatal care visits, increased over the past few years from 66% in 1998 to 75% in 2016. This could be a contributing factor as to why the rate of pregnancy-related mortality has improved. Similarly, the data shows that in the rural provinces of South Africa, the proportion of women attending prenatal care clinics increased between 1998 and 2016 from 71.3% to 79% respectively (StatsSA, 2020). Receiving prenatal care, can help and even prevent any complications during the pregnancy which is beneficial to the health of both the mother and the developing foetus. It can indicate possible hypertension and even diabetes, which can consequently affect the developing foetus. Additionally, receiving prenatal care can inform the mother how to take care of herself and the developing foetus, and what may be harmful to both respectively.

However, despite these increases in child survival rate and a decrease in child mortality amongst others, the first 1000 days and child development in South Africa in particular, is still a cause for great concern. Unlike other middle to low-income countries, South African children are still lagging in reaching optimal development and thriving as they progress through life. While the numbers are improving in South Africa, many children are still not developing to

their full potential, and a number of them are dying as a result of preventable causes and conditions (Lake et al., 2019). Lake et al. (2019) further reports that despite this decrease in child mortality, there are still factors such as HIV which continues to affect approximately 1 in 4 pregnant women as well as violence against women and children, which continue to be prevalent. Therefore, this indicates that early childhood and parental care is important and greater attention needs to be invested in children to not only ensure that they survive, but also that they are thriving as they progress and develop. One of the main ways to tackle this is to pay more attention to parenting and parenting practices.

3.7. Parenting in the South African context

Parenting is multifaceted and a combination of multiple factors influences parenting, parenting practices and parenting styles. Parenting differs between contexts, families, and even between children. Therefore, parenting is complex as a mix of biological factors, individual experiences, opportunities and relationships amongst others (Sanders & Mazzuchelli, 2017). These factors are influenced by numerous things which can influence how parents treat or nurture their children and how involved or uninvolved they are; which consequently affects the parent-child relationship and also how the child develops. One of the major challenges families and parents face within the South African context is poverty (Adebiyi et al., 2021, StatsSA, 2018).

Poverty creates a particular risk for parenting (Kaminski et al., 2013). Recent statistics show that 62.1% of children aged 0-17 in South Africa are multidimensionally poor (StatsSA, 2020). This means that these children experience deprivations in various parts of their daily lives. These deprivations include but are not limited to a lack of education, poor health, inadequate living conditions and more (StatsSA, 2020). The 2020 StatsSA report reveals that 68.3% of Black African children are living in poverty, most of which are living in rural areas (88.4%) (StatsSA, 2020). These circumstances can hinder and impact child development. For example,

these conditions increase the risk of malnutrition, poor mental health, stunting, low performance in school amongst others. Consequently, these circumstances can impact the type of care the parents provide for their children. The degree and the type of care parents give to their children, is dependent on numerous factors such as parental stress, parents' age, how they regulate emotion, the child's temperament and the type of care the parent received as a child (Sanders & Turner, 2019; Pem, 2015). Parents might not be able to be nurturing and warm toward their children when faced with adverse deprivations.

Children living in poverty or resource-constrained communities, often experience significant disadvantages in their cognitive development, physical health, and their socio-emotional functioning (Newland et al., 2013). There tends to be higher infant mortality rates, low birth weights, and teenage pregnancy (Vilanova et al., 2019; WHO, 2016). Poverty is often associated with financial hardships, and parents parenting in these circumstances are faced with disadvantages. The parenting abilities of parents under these circumstances are often faced with isolation from others, poor health, access to basic services and jobs are limited and difficulties with relationships; consequently, the ability parents have to adequately parent, is disrupted (La Placa & Corlyon, 2015). Moreover, many families in South Africa are faced with absent fathers. More than 50% of children in South Africa are raised in households, with caregivers/parents who do not have support from partners or others (Eddy, et al., 2013). According to a 2019 StatsSA report, 43.1% of children in South Africa, live in households with only their mother present (Stats SA, 2019).

Parenting is not something that can be taught, it is however something that needs to be learned through experiences. This in turn means that parenting experience for one, might not be the same for another. Numerous factors contribute to this - such as poor social and family support; poverty and strained relationships with their spouse, amongst others (Senturk et al., 2011).

Furthermore, research suggests that parents who are struggling with raising their children in poverty are more likely to suffer from depression; this, in turn, is often infiltrates into their parenting and on the child (La Placa, & Corlyon, 2015). For example, parents can become harsher towards their child in terms of punishment, be less nurturing, and inconsistent in how they respond to their child. With is said, another challenge parents face within the first 1000 days is parental mental health. (Cooper et al., 2015; Rich et al., 2021 cited in Roman, Davids & Sonn, 2021)

3.8. Parental Mental health

The mental, social and emotional well-being of a parent is important in parenting. Having good mental health as well as strong motivation is an essential part of good caregiving (WHO et al., 2018). Therefore, having mental health problems can disrupt nurturing caregiving as responsive caregiving, which is driven by emotions and motivations. Parental mental illness is also often directly related to parenting styles and parenting practices (Vafaeenejas et al., 2019). Parents who are affected by or have psychological distress are more likely to parent in ways that are driven by hostility and rejection (Vafaeenejad et al., 2019). Having good mental health, enable parents and caregivers to not only recognise the needs of their children, but also enables them to respond appropriately (WHO et al., 2018).

The most common mental health disorder mothers experience pre-and/or post-pregnancy is depression, anxiety and adjustment disorders (Fisher et al., 2012; Muzik & Borovska, 2010). This is often more common in low-income settings compared to high-income settings (WHO et al., 2018). Research suggests that risk factors associated with antenatal depression include, but are not limited to low self-esteem, low socio-economic status, anxiety, history of abuse (Biaggi et al., 2016), unplanned pregnancy and little to no empathy and social support from intimate partner (Murphy et al., 2017). Plass-Christl et al, (2017), further suggest that parental unemployment, daily strain, chronic disease and child mental health problems are risk factors

associated with poor parental mental health. On the contrary, there are protective factors for depression which include but are not limited to having a secure income and having a secure and empathetic partner (WHO et al., 2018).

3.8.1. Maternal Mental Health Pre-and Post-Pregnancy

Mental health problems in pregnant women are among the leading causes of pregnancy-related morbidity (WHO et al., 2018) and adverse perinatal outcomes (Eastwood et al., 2017; Navaratne et al., 2016). Previous research presented that 13% of women experience the effects of major depressive disorders during this period; and between 11-20% of women experience postpartum depression symptoms (Center for Disease Control and Prevention, 2008; Muzik & Borovska, 2010). However more recent research presented that, 10-15% of women who are pregnant or who recently gave birth in developed countries are affected by mental health problems and the prevalence in South Africa stands at almost 40% (Honikman, et al., 2014). Many of these women come from disadvantaged communities and they face many challenges which include access to health and treatment services (Honikman et al., 2014).

Mothers who experience mental illness pre-and postnatally can have babies who are born prematurely and have sleep problems. Mental illness pre-and post-birth can also affect parent-child bonding (Gajos & Beaver, 2017). Mothers who experience mental health problems after birth, such as postpartum depression, may have difficulty being sensitive toward their baby and may provide responsive care which can impact the social, emotional and intellectual development of their baby (Cleaver et al., 2011). For example, the mother may be withdrawn and have emotionally unavailable, and they may not be able to recognize their baby's and responding to the cues may be difficult. Moreover, parents with mental health problems may have difficulty in setting boundaries and enforcing discipline which in turn could lead to safety situations. For example, a 2016 study that reviewed 175 cases of child abuse and neglect

between 2011 and 2014, revealed that in 53% of the cases, parental mental health problems were present (Sidebotham et al., 2016).

Furthermore, as a result of maternal mental health problems, the hormonal changes in the womb can affect the developing foetus which could result in negative implications for childhood development (Coussons-Read, 2013). Mental illness pre-and post-birth can also affect parent-child bonding (Gajos & Beaver, 2017). Thus, maternal mental illness problems, especially those that go untreated, can affect not only their health and development outcomes but also that of their children.

3.8.2. Paternal mental health

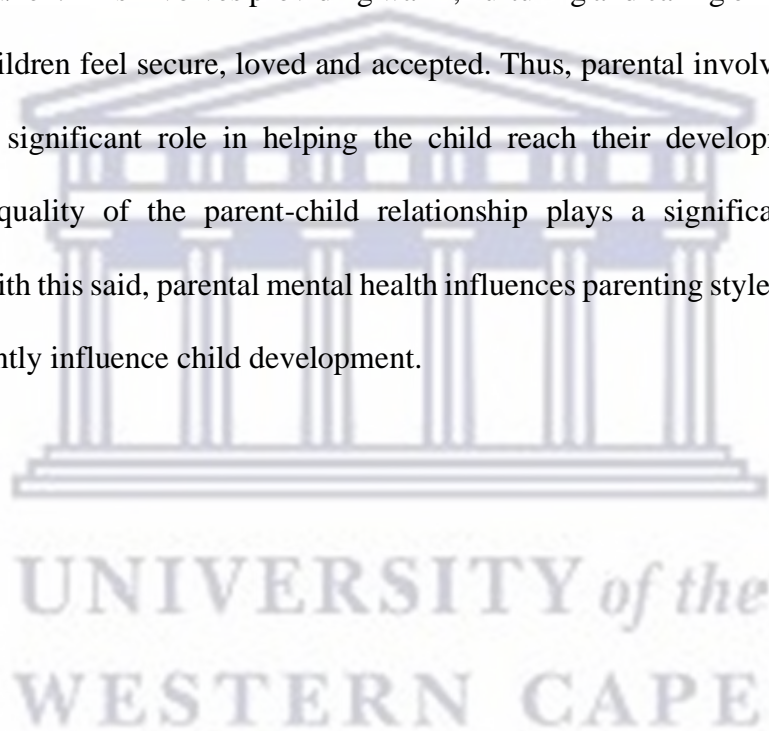
The transition to parenthood leads to many lifestyle changes, and for fathers, feelings of happiness, a change in the relationship (sexual and emotional) with their partners, financial pressure and lack of sleep; can lead to poor mental health and mental health problems (Bradley & Slade, 2011). Similarly, pre-and/or post-pregnancy depression can be present in fathers (Habib, 2012) however this has been under-researched compared to maternal mental health (Tuszyńska-Bogucka & Nawra, 2014). More recently, there has however been emerging evidence of significant mental health problems in new or expectant fathers (Cameron, et al., 2016; Koh et al., 2014). According to a meta-analysis study conducted by Paulson and Bazemore (2010) (cited in Scarff, 2019), 8-10% an average of 10.4% of fathers suffer from depression both pre-and post-natally, and it presented to be highest for fathers between 3 and 6 months after the birth of their child. Evidence suggests that the onset of parental postpartum depression is more likely to be present in the first 3 to 6 months of the postpartum period (Holopainen & Hakulinen-Viitanen, 2012; Holopainen & Hakulinen-Viitanen, 2019). An estimated prevalence of postpartum depression is between 24 % and 50% in fathers who have partners or spouses who have postpartum depression (Letourneau et al., 2011). Thus, fathers also experience psychological distress when their partners are pregnant or have maternal health

problems (Darwin et al., 2017). A 2020 study examining the correlation between paternal and maternal depression during the perinatal period, found that paternal depression has positive correlations with maternal depression (Paulson & Bazemore, 2010). Paternal depression, particularly in the postnatal stage is often associated with behavioural and emotional problems (Darwin et al., 2017).

Depression in men is associated with avoidance behaviour, hyperactivity, interpersonal conflicts and lower impulse control compared to women (O'Brein et al., 2017). Moreover, research further suggests that paternal depression is often associated with a history of personal depression (Edwards et al., 2015). Mental illness has an intergenerational cycle where parental mental illness, results in poor bonding with the child, consequently results in negative child outcomes and leads to vulnerability to future mental health problems; the cycle then repeats (WHO, 2020). Fathers' mental health and psychological stress during pregnancy, have been associated with adverse childhood emotional problems at 36 months (Yogman & Garfield, 2016). Fathers who suffer from depression tend to spend less time with their children, and when they do, it is often not nurturing, less responsive time and activities (Darwin et al., 2017). When fathers spend less time with their children, the quality of the time spent together and bond is less positive, as activities such as playing sports, reading and hugging amongst others, are not interactive or happening less and less with time (Gupta & Ford-Jones, 2014). This in turn impacts the father-child dynamic as father-child interaction and father involvement are essential to a child's emotional, psycho-social and physical development (Habib, 2012). Paternal depression can also lead to an increase in conflict with the mother (Hanington et al., 2012). Consequently, this can result in a stressful and hostile environment, which could impact child development negatively (Habib, 2012).

3.9. Conclusion

The first 1000 days is an important period for child development. This period is the foundation for child development but also for surviving and thriving as they progress through life. Children are particularly dependent on their parents and primary caregivers during the first 1000 days period; thus, parents play an important role in the development of the child. Effective parenting, nurturance and a healthy learning and living environment amongst others are essential for children reaching their developmental potential. Parents should focus on the emotional well-being of the child/ren. This involves providing warm, nurturing and caring environments which in turn, helps children feel secure, loved and accepted. Thus, parental involvement from both parents plays a significant role in helping the child reach their developmental potential. Moreover, the quality of the parent-child relationship plays a significant role in child development. With this said, parental mental health influences parenting styles and behaviours, which consequently influence child development.



CHAPTER 4

METHODOLOGY

4.1. Introduction

This chapter presents the methods used to accomplish the goal of the study. The methods include research techniques and data collection procedures, needed to answer the research questions of a particular study. This study used a quantitative methodological approach as it intended to examine the association between parental mental health and parental perceptions of nurturing care in the first 1000 days. This chapter also elaborated on the pilot study, sampling techniques, research tools, data gathering procedure, data analysis and ethical considerations.

4.2. Aims and objectives of the study

4.2.1. Aim

The aim of the study was to assess the association between parental mental health (mental well-being) and parental perceptions of nurturing care in the first 1000 days.

4.2.2. Objectives

The objectives of the study were to:

- Determine the prevalence of parental mental health (mental well-being) in the first 1000 days,
- Determine the prevalence of parental nurturance in the first 1000 days,
- Examine the relationship between parental mental health and parental perceptions of nurturing care in the first 1000 days.

4.3. Methodological approach

This study used a quantitative research methodology. In quantitative research, researchers use mathematical and statistical data obtained from the observational research methods to analyse the outcome of the research (Mohajan, 2020). Quantitative research has also been described as a more scientific approach to conducting research and collecting data (Mohajan, 2020). Quantitative research allows for testing of theories by studying the relationships between two or more variables numerically, and data is analysed through statistical methods (Creswell, 2013). These variables are in the form of research questions and hypotheses (Creswell, 2013). Moreover, Kivunja and Kuyini, (2017) and Mohajan (2020) suggest that quantitative research methodology is characterised by positivism. The positivistic paradigm refers to research focuses on exploratory associations or causal relationships between variables with quantitative approaches (Park, Konge & Artino, 2020). Moreover, quantitative research makes use of experiments and surveys to gain statistical information (Antwi & Hamza, 2015). These are typically collected by means of instruments which are predetermined, and have been tested in other studies. An example of this would be questionnaires. It is also best suited for studies aimed to understand predictors of outcomes. Therefore, a quantitative methodological approach is best suited for this study as it aims to describe the association between parental mental health and parental perceptions of nurturing care in the first 1000 days.

4.3. Research design

A research design is regarded as a comprehensive plan of a sequence of procedures, used to ensure that the data collected, answers the intended research objectives (Creswell, 2013; Vogt, Gardner & Haeffele, 2012). This study determines the relationships between variables at one point in time and therefore the design is (1) a cross-sectional design and (2) a correlational research design (Creswell, 2013)

4.3.1. Cross-sectional design

A cross-sectional research design refers to the process where a sample of a population is selected for data collection, and the data represents the relationship between variables at one point in time (Jones, 2014). Cross sectional research designs do not manipulate variables, it simply allows for numerous variables to be observed at one point in time, giving information about what is currently happening in a population. The advantage of cross-sectional research design is that this method is inexpensive -as it often uses self-report questionnaires- and allows for data to be collected fast (Jones, 2014). Cross-sectional research designs also allow for data to be generalised to a whole population, as random sampling of the population can be used in studies. Although cross sectional research design is only based on one point in time, this design still allows data to be collected on various variables to see how they correlate with another.

4.3.2. Correlational design

A correlation study seeks to determine the relationship between two or more variables, and seeks to test the degree to which variables are related (Curtis et al., 2016). Studies using correlation research design, investigate existing variables without the manipulation or controlling of the independent variable. If a significant relationship between the variables is found, the variables are regarded as correlated. The direction of the correlation can either be positive (0 to +1) or negative (0 to -1) (Schober, et al., 2018). A positive direction implies that if one variable increases, so does the other and a negative direction implies that if one variable increases, the other will decrease (Schober, et al., 2018). Although correlational research designs determine whether variables are related and may identify that causation is present, a limitation of correlation research design is that it does not allow inference of which variable is the effect and cause (Michie, 2014). Despite this, correlation research is still effective for assessing complex phenomena. This study's research design further extends to regression which aims to predict how much change in one variable, causes change in another (Field, 2009).

Thus, this study aims to test how strong the correlation coefficients are between parental mental health (mental well-being) and parental perceptions of nurturing care (Field, 2009).

4.4. Population and Sample

This study was conducted in Cape Town, Western Cape. The inclusion criteria for participants included all biological parents (mothers and fathers), residing in Cape Town, who were either pregnant (had a partner who was pregnant) or had a child between the ages of 0 and 2, at the time this study was conducted. The exclusion criterion is parents (mothers and fathers) who were not pregnant (or had a partner who was pregnant) or parents who had children older than 2 years of age.

4.5. Sampling techniques

To calculate the sample size adequacy, the Yamane formula (Yamane, 1967): $n = N / (1 + N(e^2))$ with a 95% confidence level and 5% margin of error was used. Based on the 2018 population ($N = 4\,617\,560$) across urban and rural areas in Cape Town (Stats SA, 2018), and entered into the Yamane formula: $(1 + 4\,617\,560(0.5)^2)$, thus the total sample ($n = 1\,154\,391$). However, as a result of the COVID-19 pandemic and the lockdown restrictions implemented at the time the study was conducted, only 147 participated.

Purposive and snowball sampling were used to recruit participants. Purposive sampling is a non-probability technique which relies on selecting participants who are available, and that may not have a specific possibility for being chosen (Thompson, 2012). Non-probability refers to sampling techniques which are based on subjective judgement of the researcher, rather than random selection of participants, in which not all members of the population have an equal chance of participating (Etikan & Bala, 2017). Moreover, non-probability sampling- where participants are selected by non-random criteria- is easier to access and can be more cost-

effective, however the risk of sampling bias may be higher compared to probability sampling. Thus, non-probability sampling lacks generalizability (Showkat & Parveen, 2017).

With purposive sampling, prior knowledge to the purpose of the study is needed as a means to recruit participants who meet the inclusion criteria; even if the participants chosen are not statistically representative of the population as a whole. Thus, snowball sampling is a non-probability sampling technique which requires existing participants, to provide referrals of other participants to participate in a research study (Etikan & Bala, 2017).

4.6 Data Collection Instruments

The current study used pre-existing instruments to collect data. A self-report questionnaire-in English and translated into Afrikaans and isiXhosa and back translated into English- was used to collect data from the participant. The questionnaires were distributed to either pregnant parents (mothers and fathers who had pregnant partners), or parents (mothers and fathers) who had children aged 0-2. The participants were able to complete the online questionnaire or the physical copy of the questionnaire at their own convenience, in the language of their choice. For this study, two separate questionnaires were set up, 1) pregnant parents and 2) parents with children aged 0-2. Two separate questionnaires were used as a means to measure nurturing care during pregnancy and after birth, because nurturing care done by parents during pregnancy is different to nurturing care after the baby is born (during the first two years of life).

4.6.1. Demographics:

Participants from both groups (pregnant parents and/or parents with children aged 0-2) were requested to report on their age, gender, race, home language, highest education level completed, employment status, whether or not they receive a social grant and their household structure. They were also asked to report on parent care and support questions which include

questions regarding medication usage, if it is their first pregnancy/birth and who their secondary support system/caregiver is.

4.6.2. Parenting:

4.6.2.1. Parents with children aged 0-2

To measure parenting, the parenting in a social context was measured by making use of the Parents as Social Context Questionnaire (PASCQ) (Skinner, Wellborn, & Regan, 1986). Originally a 25 item self-report questionnaire, this tool was adjusted to 19 items. The 19 items were aimed at parents with children aged 0-2 years, whereas the 6 excluded items were aimed at parents with children older than 2 years of age. A 4-point Likert scale was used, with options ranging from 1 (*not at all true*) to 5 (*very true*). Alpha coefficient suggested at 0.9 and 0.81 in previous research. This section is made up of three dimensions namely, warmth, rejection and chaos (see section 4.8.1).

4.6.3. Parental Perceptions of nurturing care:

In measuring parental nurturance (nurturing care), no example of a questionnaire was found. To measure this, the components which make up nurturing care were used, such as attachment and responsive parenting. Two separate instruments were used to assess attachment in the two groups.

4.6.3.1. Parental Attachment to Foetus: Pregnant parents

Measuring attachment in the pregnant parent-foetus relationship, the *Prenatal Attachment Inventory (PAI)* [Muller & Mecer, 1993] scale was used. This PAI consists of 21 Likert-type questions, which range from 1 (*almost never*) to 4 (*almost always*). The 21- item tool was adjusted so that the questions were aimed at both expecting mothers and fathers. In previous studies, the Cronbachs alpha ranges between 0.81 and 0.93. In this section, five dimensions

were assessed namely affection, separating self from foetus, sensitivity, fantasy and interaction in the parent-foetus dyad (see section 4.8.2).

4.6.3.2. Parental Attachment to the Child: Parents with children aged 0-2

In measuring parent-child attachment for parents with children aged 0-2 years, the *Child-Parent Relationship Scale* (Pianta, 1992) was used to measure the parent-child relationship with 21 questions. They record the strength of attachment on a 4-point scale, ranging in single unit intervals from 1 (*definitely does not apply*) to 4 (*definitely applies*). This section measured the three variables namely conflict, closeness and dependence (see section 4.8.3). Three questions were reverse scored. For the category of conflict, the question “*when my baby is misbehaving, he/she responds to my look or tone of voice*” was reverse scored. For the closeness category, “*my baby is uncomfortable with physical affection or touch from me*” was reverse scored. The category dependence had a reverse score for the question “*my baby asks for my help when he/she really does not need help*”.

4.6.3.3. Responsive caregiving: parents with children aged 0-2

To assess responsivity and how parents respond to their infants, the *Child HOME inventory* (Bradley & Caldwell, 1984) with a 4-point Likert scale which ranges from 0 (*does not apply*) to 3 (*applies to me very much or most of the time*) was used. This consists of 12 questions. Similarly, the parental involvement assessment consists of 7 questions and was measured on the same scale (0- *does not apply* to 3- *applies to me very much or most of the time*). Alphas suggested at 0.83 in previous research.

4.6.4. Parental Mental health

The *Depression, Anxiety and Stress Scale (DASS 21)* (Osman et al., 2012) assessment tool was used to assess parental mental health. For this study, an amount of 21 questions was used to measure parental mental health. The tool uses a 4-point Likert scale which ranges from 0 (*does*

not apply) to 3 (*applies very much, or most of the time*). Alphas suggested 0.88 in previous research. This section measured three variables namely, stress, anxiety and depression.

4.7. Procedures

The study initially intended to recruit approximately 400 parents through door-to-door data collection and approaching maternity hospitals in an attempt to reach parents (both mothers and fathers) who are pregnant, or who had a baby aged 0-2, and were at the hospital for postnatal care. However, with the onset of the Coronavirus pandemic (COVID-19), this was no longer possible. As a result of the global pandemic of Covid-19 in 2020, all human contact data collection processes were put on hold indefinitely. In order to continue with the data collection process, the data collection process was shifted online. As a result of the pandemic, data collection and population sampling had to move online.

For the current study, the sample was purposive in that participants with particular characteristics (pregnant or parents of children between 0-2 years) were used as a means to answer the research question. Initially, participants known to the researcher were identified and approached to answer the online questionnaire or to send it to people they might know. Furthermore, an NGO who provides maternal health care programmes to support vulnerable women, girls and babies in the Western Cape was contacted. As a means to collect data, the researcher identified a key informant who worked at the organisation and requested that the organisation distribute the Google docs link (of the questionnaire) via email, or to have it posted on their social media platforms such as Facebook and WhatsApp; or alternatively be sent directly to their list of parents (mothers and fathers) who attend their pre- and post-natal programs. Additionally, 50 hard copies of the questionnaires were also printed and left at the NGO for participants to complete whilst attending their one-on-one session at the organisation. With the lockdown levels being downgraded, the researcher also did door to door data

collection. The researcher identified homes known to have parents who fit the inclusion criteria. These participants further identified possible participants who fit the criteria. Thus, purposive sampling and snowball sampling techniques were also used to recruit participants for the current study.

4.7.1 Phase I

4.7.1.1 Pilot study

To test the reliability of the tool used in the study, a pilot study was conducted. Factors such as the time taken for participants to complete the questionnaire, the language and understanding as well as the comprehension of the questions were determined. The submission of this research proposal was submitted to the Ethics Senate Committee of the University of the Western Cape for ethics clearance. Once permission was granted, respective participants (pregnant parents or parents of children between the ages of 0-2years) identified by the researcher, were contacted. For the pilot study, the researcher sent the google docs link (with the questionnaire) to participants the researcher was acquainted with.

The study was conducted online via a Google form which can be completed on a mobile phone or a computer/laptop. The research project was explained to participants either telephonically, via social media and/or through email. Upon understanding and agreement, the link to the online Google form was sent to the participants via email, social media, etc., to complete at their convenience. Upon sending the link to the participant, they were told that they can complete it at any time during a two-three-week period (this ensured that at a particular time, the researcher can look at the data collected, analyse it and make changes where necessary). Attached to the online questionnaire was an information sheet explaining the study. An option to grant consent was also attached to this online questionnaire. Based on the outcomes and

suggestions made by participants- changes were made. Moreover, the test-retest method was used as a means of measuring the internal consistency of the questionnaire. This was also be used to establish any challenges or limitations which may occur.

4.7.1.2 Outcomes of Pilot study

As part of the pilot study, the questionnaire was administered to parents who are either pregnant or have children between the ages of 0 and 2. To test the reliability of the instrument, an initial 15 % (35-40 parents) of the total sample were expected to complete the survey. However, only 19 participants responded and they were all used for the pilot study sample. This indicated that the 15% could not be attained for the pilot study as too few participants have responded

4.7.1.3. Changes to the instrument

Feedback received from the pilot study indicated that parents who were still pregnant did not have the experiences other parents had with their children. Therefore, when answering the original questionnaire, many of the parents had to anticipate how they would feel or how they would behave.

To account for pregnant parents, a new section was added specifically for expecting parents. The Parental Attachment Inventory (PAI) was added to measure the attachment bond between the expecting parents and the developing foetus. The 21- item tool was slightly adjusted so that the questions were aimed at both expecting mothers and fathers.

4.7.2 Phase II

4.7.2.1. Main study

As previously mentioned, the initial data collection procedure of the current study included collection of data at maternity hospitals in Cape Town Western Cape. However, at the time of

data collection, the COVID-19 pandemic occurred, and lockdown rules were implemented, halting all in person data collection. Changes then had to be made, and data collection had to shift online.

The researcher had to re-evaluate the planning process of data collection. The researcher re-applied for ethical clearance from the Biomedical Research Ethics Committee [BMREC] of the University of the Western Cape, to conduct research online instead of in person. Upon permission, the researcher imported all instruments into Google forms (in English, Afrikaans and isiXhosa) and the link to the forms was then shared on social media platforms such as WhatsApp and Facebook. The links were shared among peers, colleagues and online friends and family via respective social media platforms, WhatsApp and Facebook, as a means to recruit more participants. Additionally, as mentioned previously, the researcher also contacted an NGO that provides maternal health care programs supporting vulnerable women, girls and babies in the Western Cape. As a means to collect data, a key informant at the organisation was identified, and the researcher requested that the NGO send the link to the questionnaire via email or social media, to their list of parents who attend their pre- and post-natal programmes. The researcher also printed 50 physical copies of the questionnaires, and dropped it at the NGO for distribution to participants who did not have access to social media platforms.

The key informant, who runs programmes at the NGO, was informed of the research aims and objectives. The researcher also explained the research tools to the key informant, thus giving the key informant the opportunity to ask any questions. The key informant then relayed the information shared with colleagues who run different programmes at the organisation. In the one-on-one sessions with the clients (parents attending the programmes), the key informant and peers, identified potential participants and explained the study to them. Upon approval, the key informants would then run through the questionnaire and consent form with the client, and

answer each question with them (participants would sign the consent forms themselves). These physical copies of the questionnaires were left at the NGO for 2 weeks, and were then collected by the primary researcher.

Upon the lockdown levels being downgraded, the researcher also did door to door data collection. The researcher identified homes which were easily accessible, and approached participants who fit the inclusion criteria. The researcher explained the study to potential parents, and upon agreement to participate, participants were given questionnaires with consent forms to complete at their own pace for 1 week. The researcher also approached homes which were also creche's and approached the teachers/child care workers. The researcher explained the aims and objectives of the study and explained the instrument to the stakeholders, leaving room for possible questions. The stakeholders would then ask parent if the children if they would be willing to participate in the study, in the comfort of their own home. They could then take a questionnaire and consent form and complete it at home and return it to the creche when they dropped their children in the days to follow. This process was given 2 weeks, before the researcher went back to collect completed questionnaires.

4.8. Data analysis

Data analysed using the Statistical Program for Social Science (SPSS- version 27) and the raw data was entered, coded, cleaned and checked for errors. The data was analysed using descriptive statistics, which provide descriptions of the population through numerical calculations, graphs or tables (Weinberg & Abrahamowitz, 2016). Once computed, the data which included the mean and standard deviations – known as summary value- was used to analyse and describe the population.

The data also required inferential data analysis. Inferential statistics analysis was needed to make estimated about the population. For this study inferential statistics was used to infer

prevalence of parental mental health and prevalence of parental perceptions of nurturing care. This was done by conducting a regression analysis to measure the association between variables. Multiple regression was used to test linear associations among variables and also to examine the relations among pairs of variables and the complexities thereof (Hair, et al., 2014). This is appropriate as this study seeks to examine the correlates and make predictions among multiple variables.

4.8.1. Parenting Variables

The Parenting as a Social Context (PASCQ) assesses both positive (warmth) and negative variables (rejection and chaos) of parenting. Variables were scored between 1 (not at all true) to 4 (very true). High scores in positive variables indicate positive parenting, and high scores in negative variables, suggest struggle in parenting.

4.8.2 Nurturing Care Variables (Pregnant Parents)

The prenatal attachment inventory (PAI) was used to measure parent-foetus attachment (Muller & Mecer, 1993). The 21-item prenatal attachment inventory has a response format on a 4-point Likert scale, and scores range from 21-84. Higher scores indicate increased attachment. There are five subscales which include fantasy, interactions, affection, sensitivity, and separating self from foetus.

4.8.3 Nurturing Care Variables (Parents with Children Aged 0-2)

Nurturing care assessed the parent's perception of his/her relationship with their child, the child's behaviour with parent, and the parents' perception about the child's feelings toward the parent. Nurturing Care is scored by summing up groups of corresponding items which correspond to three based subscales that capture three dimensions of the parent-child relationship namely:

4.8.3.1. Conflict

The subscale conflict measures the degree to which the parent perceives his/her relationship with their child as conflictual or negative. A high conflict score indicates that the parent struggles with their child, they perceive their child as angry and the parent feels emotionally drained dealing with their child (Pianta, 1999).

4.8.3.2. Closeness

This closeness subscale measures the degree to which affection, warmth and open communication is experienced/shared in the parent-child dyad. High scores of closeness in the parent-child dyad indicates that the relationship is categorised by warmth, affect, open communication, the parent perceives themselves as effective and they have a great sense of knowing their child (Pianta, 1999).

4.8.3.3. Dependency

The subscale of dependence measures the degree to which parents perceive their child's dependency on him/her. High scores of dependency indicate that the child reacts strongly when separated from parent, and is over reliant on parent (Pianta, 1999).

4.8.4. Parental Mental Health Variables

The DASS-21 instruments measures Depression, Anxiety and Stress scales. The scales range between normal and extremely severe which measures the degree of depression, anxiety and stress scales. The DASS-21 is not a clinical instrument thus it cannot diagnose depression, anxiety or stress. It can however indicate whether any of the issues associated with depression, anxiety and stress, are having any significant effects on the person.

The DASS-21 severity ratings are summed up in each sub scale, and multiplied by two. The scores need to be multiplied by 2 because the DASS 21 is the shortened version of the original DASS scoring. Normal scoring for depression ranges between 0-9, mild 10-13, moderate 14-

20, severe 21-27 and extremely severe 28+. Scoring for anxiety ranges from normal (0-7), mild (8-9), moderate (10-14), severe (15-19), and extremely severe (20+). On the other hand, the normal scoring for stress ranges between 0-14, mild 15-18, moderate 19-25, severe 26-33 and extremely severe 34+.

4.9. Validity and reliability

For research results to be valid, the measures and procedures used, need to be reliable. Reliability in research is when the results obtained are stable and consistent when repeated (Evans & Rooney, 2011). For this study, the pilot study was used to assist in measuring the reliability of the instrument as the results obtained were retested for the main study. To ensure consistency, information was closely monitored and analysed by both the researcher and the research supervisor. Furthermore, Cronbach's alpha (α) was interpreted on all items of the instrument. Validity means that a test or instrument is accurately measuring what it is supposed to (Sullivan, 2011). It gives the best available estimation of truth or falseness of a given inference. Thus, the validity of a study is necessary as it is used to strengthen research conclusions. For this study, existing measuring scales or inventories that have been used in previous studies were used in both Phases I and II of the study. Furthermore, by utilising online data collection, the process of gathering data could be faster and it can also reach more participants; which means the sample is more likely to be diverse in terms of demographics. Since the participants are completing the questionnaire online, they are entering their responses directly onto the system; thus, the margin of error is reduced.

4.10. Ethical statement

Permission to conduct this study was sought and from Senate Higher Degrees and Biomedical Research Ethics Committee (BMREC) Ethics committees from the University of the Western Cape (*Appendix J*). Contact was then be made with the participants, for permission to conduct

the study, and a self-report online questionnaire was sent via email or social media platforms such as WhatsApp or Facebook. Participants who agreed to participate were then informed of what the study entails and they were provided with an information sheet (*Appendix D-F*). Participants were also asked to sign a consent form (*Appendix G-I*). The researcher shared information in English, Afrikaans and isiXhosa. The translation from English to other languages was done by an assistant researcher. Participation was voluntary and the individuals were informed that they may withdraw participation at any time with no consequences. Participants were informed that they will remain anonymous as all questionnaires were numbered for identification purposes and all information obtained from the interviews, will remain confidential- this was stated in the consent form and was only shared between the researcher and supervisor. All ethical considerations specified in this section are in accordance with the revised declaration of Helsinki (World Medical Association General Assembly, 2013), and research methods for social work (Rubin & Babbie, 2001). If participants had any questions, they were informed that they could contact the primary researcher, and in the event of any distress experienced- despite the ethical precautions set in place- resource lists were made available to respondents.

4.11. Conclusion

This chapter explored the research methodology of the study. It also addressed the research designs used to address the research objectives. It further highlighted the sampling procedure, pilot study and the results thereof. Additionally, the processes and procedures followed to collect data and the analysis thereof was highlighted, keeping in mind the study aims and objectives. the results of the data collection and data analysis will be presented in the next chapter.

CHAPTER 5

RESULTS

5.1 Introduction

This chapter presents the results of the current study which were analysed using the statistical Package for the Social Sciences (SPSS- version 27). The results are presented by means of descriptive and inferential statistics. This chapter also presents the demographic information of participants, parental mental health (depression, stress, and anxiety), parenting in the social context (warmth, rejection, chaos) nurturing care which include parent-child attachment (closeness, conflict, dependence) and parent-foetus attachment (affection, separating self from foetus, sensitivity, fantasy, interaction) and responsiveness for both pregnant parents and parents with children between ages 0 and 2 years.

5.2. Overview of the analysis

The overview of the analysis lies within the objectives and the hypothesis below:

5.2.1. Objectives

- Determine the prevalence of parental mental health (mental well-being) in the first 1000 days,
- Determine the prevalence of parental nurturance in the first 1000 days,
- Examine the relationship between parental mental health and parental perceptions of nurturing care in the first 1000 days.

5.2.2. Hypothesis

H₁: Parental mental health is associated with parental nurturance in the first 1000 days

H₀: Parental mental health is not associated with parental nurturance during the first 1000 days

Table 5.1 The information included the participants' age, race, language, employment status and education

5.3. Demographics

Table 5.1 provides an outline of the demographic information of 147 participants

| Pregnant Parents | | | Parents 0-2 | | |
|-------------------|---------------------|----------------------------|-------------------|---------------------|----------------------------|
| | | Total sample | | | Total sample |
| Age | Mean age | $M=28.03$ ($SD=5.00$) | Age | Mean age | $M=30.76$ ($SD=5.59$) |
| Gender | Female | 39 (97.5%) | Gender | Female | 95 (88.8%) |
| | Male | 1 (2.5%) | | Male | 12 (11.2%) |
| Race | Black | 9 (22.5%) | Race | Black | 5 (4.7%) |
| | Coloured | 26 (65.0%) | | Coloured | 83 (77.6%) |
| | White | 3 (7.5%) | | White | 15 (14.0%) |
| | Indian | 0 | | Indian | 1 (.9%) |
| | Other | 2 (5.0%) | | Other | 3 (2.8%) |
| Employment Status | Employed | 17 (43.6%) | Employment Status | Employed | 82 (76.6%) |
| | Unemployed | 22 (56.4%) | | Unemployed | 25 (23.4%) |
| Home Language | English | 30 (75.0%) | Home Language | English | 84 (78.5%) |
| | Afrikaans | 4 (10.0%) | | Afrikaans | 19 (17.8%) |
| | isiXhosa | 5 (12.5%) | | isiXhosa | 1 (.9%) |
| | isiZulu | 0 | | isiZulu | 1 (.9%) |
| | Other | 1 (2.5%) | | Other | 2 (1.9%) |
| Education | Senior Phase | 7 (17.5%) | Education | Senior Phase | 2 (1.9%) |
| | FET | 19 (47.5%) | | FET | 57 (53.3%) |
| | Diploma/Certificate | 7 (17.5%) | | Diploma/Certificate | 11 (10.3%) |
| | Degree | 5 (12.5%) | | Degree | 25 (23.4%) |
| | Postgrad degree | 2 (5.0%) | | Postgrad Degree | 12 (11.2%) |

In Table 5.1, the results show that the majority of the participants in the group of pregnant parents was female (97.5%), identified themselves as Coloured (65%), unemployed (56.4%), English speaking (75%), had FET level of education (47.5%) and had a Mean_{Age} of 28.03 (SD = 5.00) years. Table 5.1 also show that majority of the participants in the group of parents with children aged 0-2 were female (88.8%), identified as Coloured (77.6%), were employed (76.6%), Spoke English (78.5%), had FET level of education (53.3%) and had a Mean_{Age} of 30.76 (SD=5.59).

The Table 5.2 provides information about the Head of the house, family structure and secondary caregiver/support system

Table 5.2 Family Structure and secondary support

| Pregnant Parents | | | Parents 0-2 | | |
|---|--------------------------------|------------|--------------------------------|------------|--|
| Head of the house | Me/Myself | 3 (7.5%) | Me/Myself | 18 (16.8%) | |
| | My Spouse | 23(57.5 %) | My Spouse | 60 (56.1%) | |
| | My Parents | 9 (22.5%) | My Parents | 25 (23.4%) | |
| | My Grandparents | 0 | My Grandparents | 2 (1.9%) | |
| | Members of extended family | 5 (12.5%) | Members of extended family | 2 (1.9%) | |
| Family structure | Married | 22(55.0 %) | Married | 70(65.4 %) | |
| | Single and not living together | 2 (5.0%) | Single and not living together | 19 (17.8%) | |
| | Single and living together | 6 (15.0%) | Single and living together | 7 (6.5%) | |
| | Divorced | 0 | Divorced | 5 (4.7%) | |
| | Living with extended family | 10 (25.0%) | Living with extended family | 6 (5.6%) | |
| Secondary caregiver/support system | No one | 0 | No one | 6 (5.6%) | |
| | My Partner/Spouse | 29 (72.5%) | My partner/Spouse | 71 (66.4%) | |
| | My Parents | 5 (12.5%) | My Parents | 26 (24.3%) | |
| | My Grandparents | 0 | My Grandparents | 1 (.9%) | |
| | Extended family/friends | 6 (15.0%) | Extended family/friends | 3 (2.8%) | |

The results in table 5.2 shows that in the group of pregnant parents, majority of the participants were married (55%), the head of their house being their spouse (57.5%), and their partner or spouse is their secondary caregiver/support system. Similarly, the sample of participants with children aged 0-2, majority of the participants were married (65.4%), their partner/spouse was the head of the household (56.1%), and also their secondary caregiver/support system (66.4%).

5.4. Parental mental health in the first 1000 days

This section presents the Means (*M*) and Standard Deviation (*SD*) of the subscales of parental mental health (stress, anxiety and depression). Table 5.3 to 5.5 provides the mean and standard deviation scores for the three subscales of parental health and table 5.6 provides the overall prevalence of the three subscales. Participants were expected to respond with ‘does not apply (0)’, ‘applies to some degree (1)’, applies a good part of the time (little more than half (2)’, or ‘applies very much, or most of the time (3)’.

Table 5.3: Subscale of Stress

| PREGNANT PARENTS | | |
|---|-------------|-----------|
| Items | Mean | SD |
| 1. I find it hard to wind down and relax | .60 | .74 |
| 6. I over-react to situations | .25 | .63 |
| 8. I feel that I am using a lot of nervous energy | .20 | .56 |
| 11. I find myself getting agitated | .30 | .65 |
| 12. I find it difficult to relax | .18 | .50 |
| 14. I am intolerant of anything that keeps me from getting on with what I was doing | .20 | .65 |
| 18. I feel that I am rather touchy | .13 | .34 |
| PARENTS WITH CHILDREN AGED 0-2 | | |
| Items | Mean | SD |
| 1. I find it hard to wind down and relax | 1.48 | 1.05 |
| 6. I over-react to situations | .95 | .83 |
| 8. I feel that I am using a lot of nervous energy | .41 | .73 |
| 11. I find myself getting agitated | .84 | .84 |
| 12. I find it difficult to relax | .96 | .90 |
| 14. I am intolerant of anything that keeps me from getting on with what I was doing | .54 | .68 |
| 18. I feel that I am rather touchy | .60 | .73 |

Table 5.3 reports on the participants experience with Stress. In the pregnant parent group, majority of the participants felt that “*I find it hard to wind down and relax*” ($M=0.60$; $SD=.74$). The response with the least response was “*I feel that I am rather touchy*” ($M=0.13$; $SD=.34$). In the group of parents with children aged 0-2, the highest mean score was indicated by the statement “*I find it hard to relax*” ($M=1.48$; $SD=1.05$). The statement with the lowest mean score was “*I feel that I am using a lot of nervous energy*” ($M=0.41$; $SD=.73$).

Table 5.4: Subscale of Anxiety

| PREGNANT PARENTS | | |
|--|-------------|-----------|
| Items | Mean | SD |
| 2. I am aware of dryness of my mouth | .55 | .99 |
| 4. I experience breathing difficult (e.g., Excessively rapid breathing, breathlessness in the absence of physical exertion) | .13 | .52 |
| 7. I experienced trembling (e.g., in hands) | .03 | .16 |
| 9. I am worried about situations in which I might panic and make a fool of myself | .15 | .48 |
| 15. I feel close to panic | .05 | .22 |
| 19. I am aware of the action of my heart in the absence of physical exertion (e.g., Sense of heart rate increase, Heart missing a beat etc.) | .40 | .74 |
| PARENTS WITH CHILDREN AGED 0-2 | | |
| Items | Mean | SD |
| 2. I am aware of dryness of my mouth | .84 | 1.07 |
| 4. I experience breathing difficult (e.g., Excessively rapid breathing, breathlessness in the absence of physical exertion) | .44 | .85 |
| 7. I experienced trembling (e.g., in hands) | .26 | .59 |
| 9. I am worried about situations in which I might panic and make a fool of myself | .75 | .94 |
| 15. I feel close to panic | .29 | .65 |
| 19. I am aware of the action of my heart in the absence of physical exertion (e.g., Sense of heart rate increase, Heart missing a beat etc.) | .49 | .79 |
| 20. I feel scared without any good reason | .43 | .66 |

Table 5.4 reports on the participants’ experience with anxiety during the first 1000 days. The responses from the group of pregnant parents, show that majority of the parents reported that “*I am aware of dryness of my mouth*” ($M=0.55$; $SD=0.99$). The item with the least response

was that “*I experienced trembling*” ($M=0.03$; $SD= 0.16$). Similarly for the group of parents with children aged 0-2, majority of the participant reported that “*I am aware of dryness of mouth*” ($M=0.84$; $SD=1.07$). The statement with the least responses was “*I experienced trembling (e.g., in hands)*” ($M=0.26$; $SD=0.59$).

Table 5.5: Subscale of Depression

| PREGNANT PARENTS | | |
|---|-------------|-----------|
| Items | Mean | SD |
| 3. I can't seem to experience any positive feeling at all | .08 | .27 |
| 5. I find it difficult to work up the initiative to do things | .27 | .75 |
| 10. I feel that I have nothing to look forward to | .03 | .16 |
| 13. I feel down-hearted and blue | .08 | .35 |
| 16. I am unable to become enthusiastic about anything | .03 | .16 |
| 17. I feel like I am not worth much as a person | .00 | .00 |
| 21. I feel that life was/is meaningless | .08 | .47 |
| PARENTS WITH CHILDREN AGED 0-2 | | |
| Items | Mean | SD |
| 3. I can't seem to experience any positive feeling at all | .43 | .78 |
| 5. I find it difficult to work up the initiative to do things | .79 | .92 |
| 10. I feel that I have nothing to look forward to | .34 | .73 |
| 13. I feel down-hearted and blue | .49 | .69 |
| 16. I am unable to become enthusiastic about anything | .31 | .65 |
| 17. I feel like I am not worth much as a person | .32 | .72 |
| 21. I feel that life was/is meaningless | .16 | .50 |

Table 5.5 represents participants’ experience with depression. Majority of the participants in the group of pregnant parents, felt that “*I find it difficult to work up the initiative to do things*” ($M=0.27$; $SD=0.75$). The item with the least responses was “*I feel like I am not worth much as a person*” ($M=0.00$; $SD=0.00$). In the group of parents of children aged 0-2, majority of the participants felt that “*I find it difficult to work up the initiative to do things*” ($M=0.79$; $SD=0.92$). The item with the least number of responses was “*I feel that life was/is meaningless*” ($M=0.16$; $SD=0.50$).

Table 5.6. The Prevalence of Parental mental health in the first 1000 days in both pregnant parents and parents with children aged 0-2

| Pregnant parents | | | | | Parents 0-2 | | | | |
|------------------|-----|-----|------|-----|-------------|-----|-----|------|-----|
| Variables | Min | Max | Mean | SD | Variables | Min | Max | Mean | SD |
| Depression | 0 | 1 | .08 | .18 | Depression | 0 | 3 | .41 | .54 |
| Stress | 0 | 1 | .26 | .40 | Stress | 0 | 3 | .83 | .59 |
| Anxiety | 0 | 1 | .20 | .27 | Anxiety | 0 | 2 | .50 | .51 |

Responses were on a 4-point Likert scale where 0=does not apply and 3=applies very much, or most of the time

Table 5.6 indicates that the overall mean scores of pregnant parents indicates that during pregnancy, stress ($M=0.26$; $SD=0.40$), anxiety ($M=0.20$; $SD=0.27$) and depression ($M=0.08$, $SD=0.18$), did not apply to them at all. The highest mean score was reported for stress ($M=0.26$; $SD=0.40$). In the group of parents with children aged 0-2, stress had the highest mean score for parents with children aged 0-2 ($M=0.83$; $SD=0.59$). However, unlike pregnant parents, this mean score revealed that stress applies to them to some degree during the first 1000 days.

5.5. Parenting in the social context in the first 1000 days (parents ages 0-2)

This section reports on parenting in the social context and its subscales (Warmth, Rejection and Chaos). Participants were expected to respond with ‘Not at all very true (1)’, ‘not very true (2)’, ‘sort of true (3)’ or ‘very true (4)’. Table 5.7 to 5.9 will report on the subscales of warmth, rejection and chaos respectively. Table 5.10 will report on the prevalence of parenting in the social context in the first 1000 days.

The table below provides information on the mean and standard information of parenting in the social context.

Table 5.7. Subscale of warmth

| Items | Mean | SD |
|---|------|-----|
| 1. I let my baby know I love him/her | 3.98 | .19 |
| 2. I enjoy being with my baby | 3.94 | .23 |
| 3. I am always glad to see my baby | 3.94 | .33 |
| 4. I think my baby is special | 3.93 | .33 |
| 5. I know a lot about what goes on with my baby | 3.67 | .53 |
| 6. I really know how my baby feels about things | 3.48 | .64 |
| 7. I do special things with my baby | 3.76 | .47 |
| 8. I set aside time to talk to my baby about what is important to him/her | 3.44 | .74 |

Table 5.7 reports on the responses parents with children aged 0-2 reported with regard to feeling/sharing warmth with their children. High mean scores suggest that parents feel warmth toward their children. All the scores in the table above indicate that majority of the parents felt warmth toward their children. The item with the highest mean score indicated that parents reported that “*I let my baby know I love him/her*” ($M=3.98$; $SD= 0.19$), followed by “*I enjoy being with my baby*” ($M=3.94$; $SD=0.23$) and “*I am always glad to see my baby/*” ($M=3.94$; $SD=0.33$). The item with the lowest mean score indicated that “*I set aside time to talk to my baby about what is important to him/her*” ($M= 3.44$; $SD= 0.74$).

The table below provides the mean and standard deviation for the items of the subscale Rejection.

Table 5.8. Subscale of rejection

| ITEMS | M | SD |
|---|------|-----|
| 9. I don't understand my baby very well | 1.54 | .83 |
| 10. Sometimes my baby is hard to like | 1.36 | .72 |
| 11. At times, the demands that my baby has feels like a burden | 1.64 | .94 |
| 12. My baby needs more than I have time to give him/her | 1.68 | .90 |
| 13. Sometimes I feel like I can't be there for my baby when he/she needs me | 1.92 | .99 |

The scores illustrated in table 5.8 indicates parents' feelings of rejection towards their children. The overall mean scores suggest that majority of the parents did not display feelings of rejection toward their children. The items with the highest mean score reported was "*Sometimes I feel like I can't be there for my baby when he/she needs me*" ($M= 1.92$; $SD= 0.99$). The item with the lowest mean score was "*sometimes my baby is hard to like*" ($M= 1.36$; $SD= 0.72$).

The table below presents the mean and standard deviation scores for the items of the chaos subscale.

Table 5.9. Subscale of chaos

| Items | M | SD |
|---|------|------|
| 14. When I make a promise, my baby doesn't know if I will keep it | 1.73 | 1.06 |
| 15. I let my baby get away with things I really shouldn't allow | 1.99 | .91 |
| 16. When my baby gets in trouble, my reaction is not very predictable | 1.99 | 1.06 |
| 17. I get mad at my baby with no warning | 1.31 | .76 |
| 18. I change the rules a lot at home | 1.65 | .88 |
| 19. My baby doesn't seem to know what I expect from him/her | 1.63 | .94 |

The scores presented in table 5.9 refers to the chaos subscale of parenting. Majority of the participants reported that it is not very true "*I let my baby get away with things I really should allow*" ($M= 1.99$; $SD= 0.91$), followed by "*when my baby gets in trouble, my reaction is not very predictable*" ($M=1.99$; $SD=1.06$). The item with the least response is "*I get mad at my baby with no warning*" ($M= 1.31$; $SD= 0.94$). This indicates that parents did not agree at all with this statement.

The table below provides information regarding the prevalence of parenting in the social context.

Table 5.10. Prevalence of parenting in the social context

| Variables | Min | Max | Mean | SD |
|-----------|------|------|------|-----|
| Warmth | 2.25 | 4.00 | 3.77 | .26 |
| Rejection | 1.00 | 4.00 | 1.62 | .61 |

| | | | | |
|--------------|------|------|------|-----|
| Chaos | 1.00 | 4.00 | 1.70 | .74 |
|--------------|------|------|------|-----|

Measured on a 4-point Likert scale ranging between 1=not at all true and 4=very true

Table 5.10 shows the components of parenting during the first 1000 days, on a 4-point Likert scale ranging from not at all true to very true. The highest mean score was for warmth ($M=3.77$; $SD=0.26$). This indicates that parents with children aged 0-2 showed warmth toward their children during the first 1000 days. The lowest mean score was that of rejection ($M=1.62$; $SD=0.611$) followed closely by Chaos with a mean score of $M=1.70$ ($SD=0.74$). This indicates that for parents with children aged 0-2, rejection and chaos sometimes occurred in the parent-child dyad.

5.6. Nurturing care

5.6.1. Parent-child attachment in the first 1000 days (parents 0-2)

This section reports on Nurturing Care in the first 1000 days, in the parent/child dyad by presenting scores parent-child attachment and the subscales of conflict, closeness and dependence. Table 5.11 to 5.13 will report on the subscales conflict, closeness and dependence. Participants were expected to indicate option which best describes their parent-child relationship by responding with either ‘definitely does not apply (1)’, ‘not really (2)’, ‘applies somewhat (3)’ or ‘definitely applies (4)’. Table 5.14 will report on the prevalence of nurturing care in the first 1000 days.

The table below presents the mean and standard deviation scores for the items of the conflict in the parent child relationship.

Table 5.11 subscale of conflict

| Items | Mean | SD |
|---|------|-----|
| 2. My baby and I always seem to be struggling with each other | 1.32 | .59 |
| 9. My baby easily becomes angry at me | 1.64 | .80 |
| 12. My baby sees me as a source of punishment and criticism | 1.19 | .52 |
| 14. My baby remains angry or is resistant after being disciplined | 1.41 | .67 |

| | | |
|---|------|------|
| 15. When my baby is misbehaving, he/she responds to my look or tone of voice* | 2.05 | 1.09 |
| 16. Dealing with my baby drains my energy | 1.99 | .93 |
| 18. Despite my best efforts, I'm uncomfortable with how my baby and I get along | 1.31 | .78 |
| 20. My baby whines or cries when he/she wants something from me | 3.31 | .73 |

Table 5.11 presents the scores for items of conflict. High conflict scores indicate that the parent has conflict with the child. Majority of the participants reported that “*my baby whines or cries when he/she wants something from me*” ($M= 3.31$; $SD= 0.73$), followed by “*when my baby is misbehaving, he/she responds to my look or tone*” ($M=2.05$; $SD= 1.09$). The item with the lowest mean score indicated parents felt that “*my baby sees me as a source of punishment and criticism*” ($M=1.19$; $SD=0.52$). overall, the above scores suggest that, conflict in the parent child relationship, is somewhat present/and definitely present.

Table 5.12 presents the mean and standard deviation scores for the items of the closeness subscale.

Table 5.12 subscale of closeness

| Items | Mean | SD |
|---|------|------|
| 1. I share an affectionate, warm relationship with my baby | 3.93 | .36 |
| 3. If upset, my baby will seek comfort from me | 3.63 | .79 |
| 4. My baby is uncomfortable with physical affection or touch from me | 3.79 | .68 |
| 5. When I praise my baby, he/she beams with pride | 3.75 | .69 |
| 7. My baby spontaneously shares information about himself/herself | 2.79 | 1.01 |
| 11. It is easy to be in tune with what my baby is feeling | 3.43 | .69 |
| 17. I've noticed my baby copying my behaviour or ways of doing things | 2.75 | 1.07 |
| 21. My interactions with my baby make me feel effective and confident as a parent | 3.80 | .42 |

Table 5.12 reports the scores for closeness in the parent-child dyad. The items with the highest mean are “*I share an affectionate, warm relationship with my baby*” ($M=3.93$; $SD=0.36$) followed by “*My interactions with my baby makes me feel effective and confident as a parent*” ($M=3.80$; $SD=0.42$), followed by “*my baby is uncomfortable with physical affection or touch*

from me” ($M=3.79$; $SD=0.68$), and “when I praise my baby, he/she beams with pride” ($M=3.75$; $SD=0.69$). The items with the lowest mean scores are “I’ve noticed my baby copying my behaviour ways of doing things” ($M=2.75$; $SD=1.07$), followed by “My baby spontaneously shares information about himself/herself” ($M=2.79$; $SD= 1.01$). Overall, these scores indicate that attachment/closeness in the parent child relationship, is present.

The table below provides the mean and standard deviation scores for dependence subscale.

Table 5.13 subscale of dependence

| ITEMS | Mean | SD |
|--|------|------|
| 6. He/she reacts strongly to separation from me | 2.88 | .95 |
| 8. My baby is overly dependent on me | 2.93 | .93 |
| 10. My baby asks for my help when he/she really does not need help | 1.84 | .98 |
| 13. My baby expresses hurt or jealousy when I spend time with other children | 1.96 | 1.01 |
| 19. I often think about my baby when at work | 3.53 | .91 |

Table 5.13 indicated the scores for dependence. High mean scores suggest that dependence in the parent child relationship is high. The items with the highest mean scores are “I often think about my baby when at work” ($M=3.53$; $SD=0.91$)” followed by “my baby is overly dependent on me” ($M=2.93$; $SD=0.93$) followed by “he/she reacts strongly to separate from me” ($M=2.88$; $SD=0.95$). The items with the lowest mean score are “my baby asks for my help when he/she really does not need help” ($M=1.84$; $SD=0.98$) followed by “my baby expresses hurt or jealousy when I spend time with other children” ($M=1.96$; $SD= 1.01$). Overall, the scores indicate that dependence in the parent child dyad definitely applies.

The table below provides information relating to the prevalence of parent-child attachment/nurturing care.

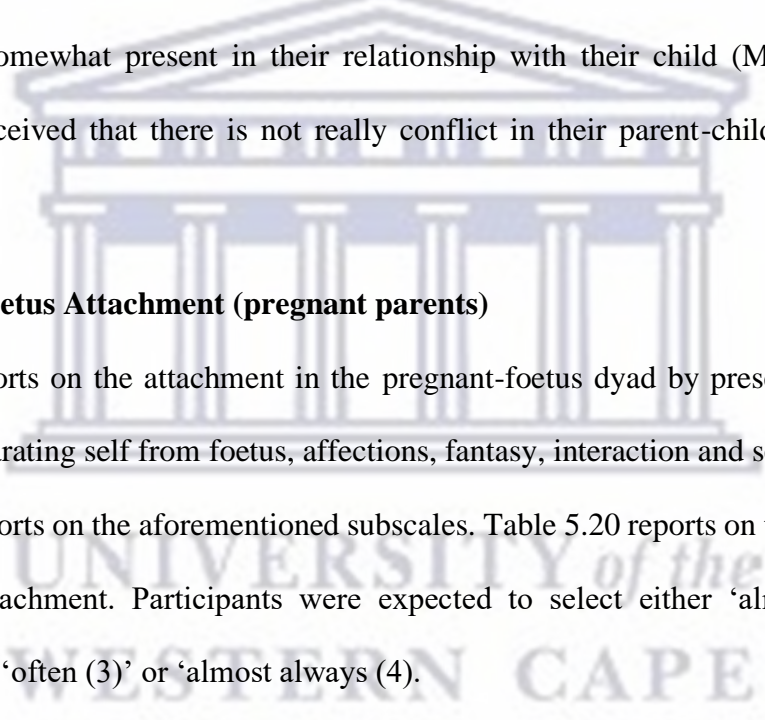
Table 5.14 Prevalence of nurturing care and parent-child attachment

| | Min | Max | Mean | SD |
|-------------------|------------|------------|-------------|-----------|
| Conflict | 1.13 | 2.88 | 1.78 | .37 |
| Closeness | 2.00 | 4.00 | 3.48 | .37 |
| Dependence | 1.00 | 3.80 | 2.89 | .44 |

Responses on a 4-point Likert scale with 1- definitely does not apply and 4=definitely applies

Table 5.14 above summarizes the findings of attachment in the parent-child relationship measured on a 4-point Likert scale ranging from definitely does not apply to definitely applies. The highest mean score recorded was closeness ($M=3.48$; $SD=.37$). This indicates that parents feel that they have a strong attachment with their children. Furthermore, parents felt that dependence is somewhat present in their relationship with their child ($M=2.89$; $SD=.44$). Parents also perceived that there is not really conflict in their parent-child dyad ($M=1.78$; $SD=.37$).

5.6.2. Parent-Foetus Attachment (pregnant parents)

This section reports on the attachment in the pregnant-foetus dyad by presenting the scores subscales of separating self from foetus, affections, fantasy, interaction and sensitivity. Tables 5. 15 to 5. 19 reports on the aforementioned subscales. Table 5.20 reports on the prevalence of parent-foetus attachment. Participants were expected to select either ‘almost never (1)’, ‘sometimes (2)’, ‘often (3)’ or ‘almost always (4)’. 

The table below presents the mean and standard deviation scores of the subscale separating self from foetus.

Table 5.15 subscale of separating self from foetus

| Items | Mean | SD |
|---|-------------|-----------|
| 1. I wonder what my baby looks like now | 2.85 | 1.15 |
| 2. I imagine calling the baby by name | 2.87 | 1.24 |
| 7. I plan the things I will do with my baby | 3.28 | .91 |
| 12. I buy/make things for the baby. | 2.68 | 1.14 |

The table 5.15 indicates the scores for pregnant parents separating self from foetus. High mean scores mean that pregnant parents are able to separate themselves from the foetus. The item with the highest mean score is “*I plan the things I will do with my baby*” ($M=3.28$; $SD=0.90$). The item with the lowest mean score is “*I buy/make things for the baby*” ($M=2.68$; $SD=1.14$).

The table below presents the mean and standard deviation scores of the subscale affection

Table 5.16 Subscale of affection

| Items | Mean | SD |
|--|------|------|
| 3. I enjoy feeling the baby move | 3.25 | 1.17 |
| 13. I feel love for the baby. | 3.93 | .47 |
| 14. I try to imagine what the baby is doing in there. | 3.10 | 1.13 |
| 15. I like to sit with my arms around my/ my partners tummy. | 2.95 | 1.26 |
| 18. I stroke the baby through my/ my partners tummy. | 3.03 | 1.17 |
| 21. I get very excited when I think about the baby. | 3.85 | .49 |

Table 5.16 shows the scores for affection in the parent-foetus dyad. The overall high mean scores indicate that parents often or almost always showed/felt affection toward their developing foetus. The item with the highest mean score reported was that parents felt that “*I feel love for the baby*” ($M=3.93$; $SD= 0.47$) followed by “*I get very excited when I think about the baby*” ($M=3.85$; $SD=0.49$). The item with the lowest scores was “*I like to sit with my arms around my/ my partners tummy*” ($M=2.95$; $SD= 1.26$).

The table below reports on the mean and standard deviation scores for fantasy in the parent-foetus dyad.

Table 5.17 subscale of fantasy

| Items | Mean | SD |
|------------------------------------|------|------|
| 16. I dream about the baby. | 2.73 | 1.26 |
| 17. I know why the baby is moving | 2.92 | 1.22 |
| 19. I share secrets with the baby. | 2.17 | 1.22 |

Table 5.17 presents the scores of fantasy in the parent-foetus dyad. The item with the highest mean score is “*I know why the baby is moving*” ($M=2.92$; $SD=1.22$) followed by “*I dream about the baby*” ($M=2.73$; $SD= 1.26$). The item with the lowest mean score is “*I share secrets with the baby*” ($M=2.17$; $SD= 1.22$).

The table below presents the mean and standard deviation scores for interaction between parent and developing foetus.

Table 5.18 subscale of interaction

| Items | Mean | SD |
|--|------|------|
| 5. I let other people put their hands on my/ my partners tummy to feel the baby move | 1.58 | .78 |
| 8. I tell others what my baby does inside my/my partners tummy. | 2.15 | 1.25 |
| 9. I imagine what part of the baby I am touching. | 2.83 | 1.26 |
| 10. I know when the baby is asleep | 2.45 | 1.28 |
| 11. I can make my baby move | 2.35 | 1.19 |

Table 5.18 presents the response scores of parents’ interaction with their developing foetus. The highest scores suggest that majority of the parents felt that “*I imagine what part of my baby I am touching*” ($M=2.83$; $SD=1.26$). the item with the lowest mean score was “*I let other people put their hands on my/my partners tummy to feel the baby move*” ($M=1.58$; $SD=0.81$).

The table below presents the mean and standard deviation scores for sensitivity in the parent-foetus dyad.

Table 5.19 subscale of sensitivity

| Items | Mean | SD |
|---|------|------|
| 4. I think my baby already has a personality | 2.92 | 1.25 |
| 6. I know that the things I will do, will make a difference to the baby | 3.33 | .94 |
| 20. I know the baby hears me. | 3.50 | .85 |

Items in table 5.19 suggest that majority of the parents felt that “*I know the baby hears me*” ($M=3.50$; $SD= 0.85$) followed by “*I know that the things I will do, will make a difference to the*

baby” ($M=3.33$; $SD=0.94$). The table also indicates that the item with the least mean score was “*I think my baby already has a personality*” ($M=2.92$; $SD=1.25$).

The table below presents the prevalence of the parent-foetus attachment during the first 1000 days.

Table 5.20. Prevalence of Parent-foetus attachment

| | Min | Max | Mean | SD |
|------------------------------------|------|------|------|------|
| Separating Self from Foetus | 1.25 | 4.00 | 2.88 | .82 |
| Affection | 1.60 | 4.00 | 3.42 | .61 |
| Fantasy | 1.00 | 4.00 | 2.61 | 1.01 |
| Interaction | 1.00 | 4.00 | 2.27 | .84 |
| Sensitivity | 1.75 | 4.00 | 3.26 | .68 |

Responses on a 4-point Likert scale with 1=Almost Never and 4=Almost Always

For pregnant parents, parent-foetus attachment was analysed. Table 5.20. shows that pregnant parents often showed affection to their developing baby ($M=3.42$; $SD=0.611$). Similarly, they often show sensitivity toward their developing foetus ($M=3.26$; $SD=0.68$). The variable with the lowest mean score is interaction ($M=2.27$; $SD=0.84$) which indicates that parents sometimes interact with their developing foetus.

5.7. Responsive parenting

This section presents the findings of Responsive parenting of parents with children aged 0-2 years, in the first 100 days. This section consists of two tables, namely table 5.21 which presents the mean and standard deviation scores for responsive parenting, and table 5.22 which reports on the prevalence of responsive parenting during the first 1000 days. Participants answered either ‘does not apply (0)’, ‘applies to some degree (1)’, ‘applies a good part of the time (little more than half) (2)’, or ‘applies very much, or most of the time (3)’.

Table 5.21 Responsive parenting

| Items | Mean | SD |
|--|------|------|
| 1. Do you speak to your baby during the day | 2.58 | .73 |
| 2. Do you make eye contact when you speak to your baby | 2.88 | .38 |
| 3. Do you encourage other family members to speak to your baby | 2.73 | .58 |
| 4. Do you respond to your baby when your baby 'speaks' to you (e.g., coo's, babbles, smiles or any form of communications such as moving in the womb) | 2.96 | .24 |
| 5. Do you encourage other family members to acknowledge and praise your baby when he/she does something new | 2.70 | .66 |
| 6. Do you acknowledge and praise your baby when he/she does something new | 2.90 | .50 |
| 7. When your baby wants to be held, do you respond to the baby by holding him/her | 2.82 | .43 |
| 8. When your baby is naughty, do you explain to them what they did is wrong | 2.18 | 1.03 |
| 9. When your baby does something good, do you reward their behaviour? (e.g., When your baby picks up their toys and pack it away, do you reward them with sweets?) | 1.73 | 1.24 |
| 10. When your baby learns something new, do you encourage them (e.g., Do you clap your hands to show they did a good job?) | 2.78 | .69 |
| 11. Do you allow your baby to solve their own problems when it is safe and developmentally appropriate? | 2.19 | 1.03 |
| 12. Do you encourage your baby's curiosity? | 2.65 | .57 |

Table 5.21 reports on responsive parenting. The item with the highest mean score is “Do you respond to your baby when your baby 'speaks' to you (e.g., coo's, babbles, smiles or any form of communications such as moving in the womb)” ($M=2.96$; $SD=0.24$), followed by “Do you acknowledge and praise your baby when he/she does something new” ($M=2.90$; $SD=0.50$), then “Do you make eye contact when you speak to your baby” ($M=2.88$; $SD=0.38$) and “When your baby want to be held, do you respond to the baby by holding him/her” ($M=2.82$; $SD=0.43$). The item with the lowest mean score is “When your baby does something good, do you reward their behaviour? (e.g., When your baby picks up their toys and pack it away, do you reward them with sweets?)” ($M=1.73$; $SD=1.24$)

Table 5.22. Prevalence of responsive parenting

The Table 5.22 presents the prevalence scores of responsive parenting during the first 1000 days.

Table 5.22. Responsive parents with children aged 0-2

| Item | Min | Max | Mean | SD |
|----------------------|------|------|-------|------|
| Responsive parenting | 1.33 | 3.00 | 2.591 | .361 |

Responses on a 4-point Likert scale with 0=Does not apply and 3=Applies very much, or most of the time

Table 5.22 results revealed that parent responsivity during the first two years of their baby's life. The mean scores summarized shows that parents with children aged 0-2, are very responsive toward their child and their needs.

5.8. Relationship between the variables

The following section provides the results of the relationships between the variables. The section consists of a correlation analysis which was first conducted to determine the relationship between parental mental health and nurturing care for pregnant parents and parents with children aged 0-2. This correlation was then followed by a regression analysis of the two groups (pregnant parents and parents with children aged 0-2) to determine whether parental mental health has an effect on nurturing care in the first 1000 days.

Table 5.23 correlation scores for the variable of parents with children aged 0-2

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------------------|---------|---------|--------|---------|--------|--------|---------|--------|--------|
| 1 Depression | | | | | | | | | |
| 2 Stress | .733** | | | | | | | | |
| 3 Anxiety | .667** | .712** | | | | | | | |
| 4 Warmth | -.335** | -.361** | -.240* | | | | | | |
| 5 Rejection | .342** | .329** | .257** | -.331** | | | | | |
| 6 Chaos | .252** | .262** | .156 | -.272** | .480** | | | | |
| 7 Conflict | .380** | .371** | .310** | -.361** | .446** | .397** | | | |
| 8 Closeness | -.131 | -.130 | -.092 | .410** | -.085 | -.209* | -.422** | | |
| 9 Dependence | -.081 | -.035 | .031 | .229* | -.090 | .121 | -.030 | .385** | |
| 10 Responsive Parenting | -.125 | -.100 | -.041 | .484** | -.091 | -.184 | -.223* | .577** | .287** |

Table 5.23 shows that there is a significant negative relationship between warmth and depression ($r = -.34, p = .01$), stress ($r = -.36, p = .01$) and anxiety ($r = -.24, p = .01$). There is a positive significant relationship between rejection and depression ($r = .34, p = .01$), stress ($r = .33, p = .01$), anxiety ($r = .26, p = .01$) and a significant negative relationship between rejection and warmth ($r = -.33, p = .01$). There is a significant positive relationship between chaos and depression ($r = .25, p = .01$), stress ($r = .26, p = .01$) and rejection ($r = .48, p = .01$) and a significantly negative relationship between chaos and warmth ($r = -.27, p = .01$). There is a significant positive relationship conflict and depression ($r = .38, p = .01$), stress ($r = .37, p = .01$), anxiety ($r = .31, p = .01$), rejection ($r = .45, p = .01$) and chaos ($r = .40, p = .01$); and a significant negative relationship between conflict and warmth ($r = -.36, p = .01$). There is a significant negative relationship between closeness and chaos ($r = -.21, p = .05$) and conflict ($r = -.42, p = .01$); and a significantly positive relationship between closeness and warmth ($r = .41, p = .01$). There is a significant positive between dependence and warmth ($r = .23, p = .05$) and closeness ($r = .39, p = .01$). There is a significant positive relationship between responsive parenting and warmth ($r = .48, p = .01$) and dependence ($r = .58, p = .01$), and a significant negative relationship between responsive parenting and conflict ($r = -.22, p = .05$).

In summary, results of the correlation table shows that there is a significant positive relationship between parental mental health (depression, anxiety, stress) and parental conflict, dependence, chaos, and rejection. Furthermore, there is a significantly negative relationship between parental mental health (Depression, stress and anxiety), and parental warmth, closeness and responsive parenting. Hence, it would seem that parental mental ill health is linked to more negative parenting practices for parents postnatally.

Table 5. 24. Correlations cores for the variables of pregnant parents

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------------------------------|---------------|---------------|-------|---------------|---------------|------|--------------|
| 1.Depression | | | | | | | |
| 2.Stress | .783** | | | | | | |
| 3.Anxiety | .564** | .663** | | | | | |
| 4.Separating Self from Foetus | -.236 | -.263 | -.228 | | | | |
| 5. Affection | -.221 | -.095 | -.023 | .577** | | | |
| 6. Fantasy | -.287 | -.270 | -.198 | .489** | .337* | | |
| 7. Interaction | -.081 | -.024 | -.020 | .537** | .690** | .208 | |
| 8. Sensitivity | -.222 | -.241 | -.256 | .441** | .456** | .225 | .341* |

Table 5.24 shows that there is a significant positive relationship between Affection and separating self from foetus ($r = .58, p = .01$). There is a positive significant relationship between fantasy and separating self from foetus ($r = .49, p = .01$) and affection ($r = .34, p = .05$). There is a positive significant relationship between interaction and separating self from foetus ($r = .54, p = .01$) and affection ($r = .69, p = .01$). There is a significant positive relationship between sensitivity and separating self from foetus ($r = .41, p = .01$), affection ($r = .47, p = .01$) and interaction ($r = .34, p = .05$).

In summary, results of the correlational analysis show that there is a significant positive relationship between parental mental health (depression, stress and anxiety) and parent-foetus attachment (separating self from foetus, affection, fantasy, interaction and sensitivity) for parents who are pregnant.

The Table 5.25 provides scores from the regression analysis to predict depression.

Table 5.25. Predicting parental depression of parents with children aged 0-2

| | | <i>F</i> | <i>p</i> | <i>B</i> | <i>SE</i> | β | <i>t</i> | <i>p</i> |
|-------------------|------------|----------|----------|----------|-----------|---------|----------|------------|
| Depression | | | | | | | | |
| 1 | (Constant) | 13.12 | .00 | 2.96 | | | | |
| | Warmth | | | -0.68 | 0.19 | -.34 | -3.62 | .00 |
| 2 | (Constant) | 10.73 | .00 | 1.93 | 0.78 | | | |
| | Warmth | | | -0.51 | 0.19 | -.25 | -2.62 | .01 |
| | Rejection | | | 0.23 | 0.08 | .26 | 2.74 | .01 |
| 3 | (Constant) | 7.25 | .00 | 1.82 | | | | |

| | | | | | | | | |
|---|----------------------|------|-----|-------|------|------|-------|------------|
| | Warmth | | | -0.49 | 0.20 | -.24 | -2.50 | .01 |
| | Rejection | | | 0.20 | 0.09 | .23 | 2.14 | .04 |
| | Chaos | | | 0.05 | 0.08 | .07 | 0.64 | .52 |
| | (Constant) | 6.81 | .00 | 1.01 | | | | |
| 4 | Warmth | | | -0.39 | 0.20 | -.19 | -2.07 | .05 |
| | Rejection | | | 0.14 | 0.10 | .16 | 1.49 | .14 |
| | Chaos | | | 0.02 | 0.08 | .03 | 0.25 | .81 |
| | Conflict | | | 0.33 | 0.15 | .23 | 2.17 | .03 |
| | (Constant) | 5.58 | .00 | 0.72 | | | | |
| 5 | Warmth | | | -0.45 | 0.21 | -.22 | -2.13 | .04 |
| | Rejection | | | 0.13 | 0.10 | .14 | 1.27 | .21 |
| | Chaos | | | 0.03 | 0.08 | .03 | 0.31 | .76 |
| | Conflict | | | 0.38 | 0.16 | .26 | 2.33 | .02 |
| | Closeness | | | 0.13 | 0.15 | .09 | 0.84 | .40 |
| | (Constant) | 4.69 | .00 | 0.71 | | | | |
| 6 | Warmth | | | -0.43 | 0.21 | -.21 | -2.05 | .04 |
| | Rejection | | | 0.11 | 0.10 | .13 | 1.10 | .28 |
| | Chaos | | | 0.04 | 0.09 | .05 | 0.47 | .64 |
| | Conflict | | | 0.40 | 0.17 | .27 | 2.39 | .02 |
| | Closeness | | | 0.17 | 0.17 | .12 | 1.02 | .31 |
| | Dependence | | | -0.08 | 0.13 | -.06 | -0.63 | .53 |
| | (Constant) | 3.98 | .00 | 0.73 | | | | |
| 7 | Warmth | | | -0.44 | 0.23 | -.22 | -1.97 | .05 |
| | Rejection | | | 0.11 | 0.10 | .13 | 1.08 | .28 |
| | Chaos | | | 0.04 | 0.09 | .05 | 0.48 | .63 |
| | Conflict | | | 0.39 | 0.17 | .27 | 2.36 | .02 |
| | Closeness | | | 0.16 | 0.18 | .11 | 0.87 | .39 |
| | Dependence | | | -0.08 | 0.13 | -.07 | -0.63 | .53 |
| | Responsive Parenting | | | 0.03 | 0.18 | .02 | 0.15 | .88 |

1. $R^2=0.10$, $P<0.05$; 2. $R^2=0.16$, $P<0.05$; 3. $R^2=0.15$, $P<0.05$; 4. $R^2=0.18$, $P<0.05$; 5. $R^2=0.18$, $P<0.05$; 6. $R^2=0.17$, $P<0.05$; 7. $R^2=0.17$, $P<0.05$

Table 5.25 presents the results of the multiple regression analysis, which assesses the association of warmth, rejection, chaos, conflict, closeness, dependence and responsive caregiving on depression. The hierarchical multiple regression revealed that at model 1, Warmth contributed significantly in a negative direction ($B = -0.68$) to the regression model ($\beta = -.34$, $p = .00$), and accounted for 10% ($R^2 = 0.10$) of the variance in depression. This indicates that if depression decreases, warmth increases. Introducing the rejection in model 2, explained an additional 16% ($R^2 = 0.16$) of variation in depression and this change in the R^2 was significant to the model ($\beta = .26$, $p = .01$). Model 2 also had warmth contributing significantly ($\beta = -.25$, $p = .01$) to the model in a negative direction ($B = -0.51$) Model 3, represented a 15%

($R^2 = 0.15$) introduced the variable chaos; however, it did not contribute significantly to the model. Though, warmth ($\beta = -.24, p = .01$) and rejection ($\beta = .23, p = .04$) contributed significantly to the model. Warmth contributed in a negative direction (warmth contributed significantly in a negative direction ($B = -0.49$)). Model 4 introduced the conflict variable which accounts for 18% ($R^2 = 0.18$) of the variance in depression which was also significant ($\beta = .23, p = .03$), warmth also contributed significantly ($\beta = -.19, p = .05$) in a negative direction ($B = -0.19$). Model 5 adding 18% ($R^2 = 0.18$) with warmth contributing significantly ($\beta = -.22, p = .04$) in a negative direction ($B = -0.45$) and conflict contributing to the model significantly ($\beta = 0.26, p = .02$). The newly introduced variable closeness did not contribute significantly to the model. Additionally, in Model 6 a significant variance of 17% ($R^2 = 0.17$) was identified, and warmth contributed significantly ($\beta = -.21, p = 0.04$) in a negative direction ($B = -0.43$). Conflict also contributed significantly ($\beta = .27, p = .02$) in model 6. Model 6 also introduced dependence which did not contribute significantly to the model. Finally Model 7 explained an additional 17% ($R^2 = 0.17$) and introduced responsive parenting which did not contribute to the model significantly however warmth did contribute significantly ($\beta = -.22, p = .05$) in a negative direction ($B = -0.44$). Additionally, chaos contributed significantly to the model ($\beta = .27, p = .02$). Therefore, the variable warmth remained significant until the final model. Overall table 5.25 presents that depression predicts parental warmth, rejection and conflict.

Table 5.26 provides scores from the regression analysis to predict stress.

Table 5.26. Predicting parental stress of parent with children aged 0-2

| | | <i>F</i> | <i>p</i> | <i>B</i> | <i>SE</i> | β | <i>t</i> | <i>p</i> |
|---------------|----------------------|----------|----------|----------|-----------|---------|----------|------------|
| Stress | | | | | | | | |
| 1 | (Constant) | 15.60 | .00 | 3.86 | | | | |
| | Warmth | | | -0.80 | 0.20 | -.36 | -3.95 | .00 |
| 2 | (Constant) | 11.31 | .00 | 2.83 | 0.86 | | 3.31 | .00 |
| | Warmth | | | -0.63 | 0.21 | -.28 | -3.00 | .00 |
| | Rejection | | | 0.23 | 0.09 | .24 | 2.50 | .01 |
| 3 | (Constant) | 7.74 | .00 | 2.67 | | | | |
| | Warmth | | | -0.61 | 0.21 | -.27 | -2.85 | .01 |
| | Rejection | | | 0.19 | 0.10 | .20 | 1.84 | .07 |
| | Chaos | | | 0.07 | 0.09 | .09 | 0.82 | .42 |
| 4 | (Constant) | 5.76 | .00 | 1.86 | | | | |
| | Warmth | | | -0.51 | 0.22 | -.23 | -2.35 | .02 |
| | Rejection | | | 0.13 | 0.11 | .14 | 1.25 | .22 |
| | Chaos | | | 0.04 | 0.09 | .05 | 0.45 | .65 |
| | Conflict | | | 0.33 | 0.17 | .21 | 1.99 | .05 |
| 5 | (Constant) | 5.76 | .00 | 1.49 | | | | |
| | Warmth | | | -0.58 | 0.23 | -.26 | -2.54 | .01 |
| | Rejection | | | 0.11 | 0.11 | .11 | 1.00 | .32 |
| | Chaos | | | 0.05 | 0.09 | .06 | 0.53 | .60 |
| | Conflict | | | 0.39 | 0.18 | .25 | 2.21 | .03 |
| | Closeness | | | 0.16 | 0.17 | .10 | 0.98 | .33 |
| 6 | (Constant) | 4.75 | .00 | 1.49 | | | | |
| | Warmth | | | -0.58 | 0.23 | -.26 | -2.51 | .01 |
| | Rejection | | | 0.11 | 0.11 | .11 | 0.96 | .34 |
| | Chaos | | | 0.05 | 0.10 | .06 | 0.52 | .61 |
| | Conflict | | | 0.39 | 0.18 | .25 | 2.17 | .03 |
| | Closeness | | | 0.17 | 0.18 | .10 | 0.91 | .37 |
| | Dependence | | | -0.01 | 0.14 | -.01 | -0.05 | .96 |
| 7 | (Constant) | 4.11 | .01 | 1.59 | | | | |
| | Warmth | | | -0.63 | 0.25 | -.28 | -2.57 | .01 |
| | Rejection | | | 0.10 | 0.11 | .11 | 0.93 | .35 |
| | Chaos | | | 0.05 | 0.10 | .06 | 0.56 | .57 |
| | Conflict | | | 0.38 | 0.18 | .24 | 2.10 | .04 |
| | Closeness | | | 0.11 | 0.20 | .07 | 0.56 | .58 |
| | Dependence | | | -0.01 | 0.14 | -.01 | -0.09 | .93 |
| | Responsive Parenting | | | 0.12 | 0.9 | .07 | 0.63 | .53 |

1. $R^2 = 0.12$, $P < 0.05$; 2. $R^2 = 0.16$, $P < 0.05$; 3. $R^2 = 0.16$, $P < 0.05$; 4. $R^2 = 0.19$, $P < 0.05$; 5. $R^2 = 0.19$, $P < 0.05$; 6. $R^2 = 0.18$, $P < 0.05$; 7. $R^2 = 0.17$, $P < 0.05$

Table 5.26, presents the multiple regression for stress. The hierarchical multiple regression revealed that at model 1, warmth contributed significantly in a negative direction ($B = -0.80$) to the regression model ($\beta = -.36$, $p = .00$), and accounted for 12% ($R^2 = 0.12$) of the variance in stress. Introducing the rejection in model 2, explained an additional 16% ($R^2 = 0.16$) of

variation in stress and this change in the R^2 was significant to the model ($\beta = .24, p = .01$). Warmth also contributed significantly in a negative direction ($B = -0.63$) to the regression model ($\beta = -.28, p = .00$). Model 3, only warmth contributed significantly in a negative direction ($B = -0.61$) to the regression model ($\beta = -.27, p = .01$), and accounted for 16% ($R^2 = 0.16$). The variable chaos was introduced in model 3, however it did not contribute significantly to the model. In model 4, conflict was added to the regression model, and explained an additional 19% to the model ($R^2 = 0.19$) of variation in stress and this change in R^2 was significant ($\beta = .21, p = .00$). Additionally, warmth contributed significantly in a negative direction ($B = -0.51$) to the regression model ($\beta = -.23, p = .02$). Similarly, in model 5 which explained a 19% ($R^2 = 0.19$), warmth contributed significantly in a negative direction ($B = -0.58$) to the regression model ($\beta = -.26, p = .01$) as well as the variable conflict contributed significantly ($\beta = .25, p = .03$). Model 5 also introduced the variable closeness; however, it did not contribute significantly to the model. In model 6, dependence was introduced to the model however it did not contribute significantly. However, warmth contributed significantly in a negative direction ($B = -0.58$) to the regression model ($\beta = -.26, p = .01$) and conflict contributed significantly ($\beta = -.25, p = .03$) with a model significant variance of 18% ($R^2 = 0.18$). Similarly, model 7 with a significant variance of 17% ($R^2 = 0.17$) introduced the variable responsive parenting to model. This variable did not contribute significantly however, warmth did contribute significantly to model 7 in a negative direction ($B = -0.63$) to the regression model ($\beta = -.28, p = .01$) and conflict contributed significantly ($\beta = .24, p = .04$). Overall, the warmth variable remained significant until the last model.

Table 5.27 provides scores from the regression analysis to predict anxiety.

Table 5.27. Predicting parental anxiety of parent with children aged 0-2

| | | <i>F</i> | <i>p</i> | <i>B</i> | <i>SE</i> | β | <i>t</i> | <i>p</i> |
|----------------|----------------------|----------|----------|----------|-----------|---------|----------|------------|
| Anxiety | | | | | | | | |
| 1 | (Constant) | 6.37 | .01 | 2.22 | | | | |
| | Warmth | | | -0.46 | 0.18 | -.24 | -2.52 | .01 |
| 2 | (Constant) | 5.30 | .01 | 1.48 | | | | |
| | Warmth | | | -0.33 | 0.19 | -.17 | -1.76 | .08 |
| | Rejection | | | 0.17 | 0.08 | .20 | 2.10 | .05 |
| 3 | (Constant) | 3.50 | .02 | 1.47 | | | | |
| | Warmth | | | -0.33 | 0.19 | -.17 | -1.72 | .09 |
| | Rejection | | | 0.16 | 0.09 | .20 | 1.75 | .08 |
| | Chaos | | | 0.01 | 0.08 | .01 | 0.07 | .95 |
| 4 | (Constant) | 3.66 | .01 | 0.75 | | | | |
| | Warmth | | | -0.24 | 0.19 | -.13 | -1.24 | .22 |
| | Rejection | | | 0.11 | 0.10 | .13 | 1.16 | .25 |
| | Chaos | | | -0.02 | 0.08 | -.03 | -0.29 | .77 |
| | Conflict | | | 0.29 | 0.15 | .22 | 1.96 | .05 |
| 5 | (Constant) | 3.02 | .01 | 0.51 | | | | |
| | Warmth | | | -0.30 | 0.21 | -.15 | -1.41 | .16 |
| | Rejection | | | 0.10 | 0.10 | .12 | 0.98 | .33 |
| | Chaos | | | -0.02 | 0.08 | -.03 | -0.23 | .82 |
| | Conflict | | | 0.33 | 0.16 | .25 | 2.08 | .04 |
| | Closeness | | | 0.11 | 0.15 | .08 | 0.72 | .47 |
| 6 | (Constant) | 2.58 | .02 | 0.52 | | | | |
| | Warmth | | | -0.31 | 0.21 | -.16 | -1.47 | .14 |
| | Rejection | | | 0.11 | 0.10 | .13 | 1.10 | .27 |
| | Chaos | | | -0.04 | 0.09 | -.05 | -0.41 | .68 |
| | Conflict | | | 0.31 | 0.16 | .23 | 1.92 | .06 |
| | Closeness | | | 0.06 | 0.17 | .05 | 0.37 | .71 |
| | Dependence | | | 0.09 | 0.13 | .08 | 0.69 | .49 |
| 7 | (Constant) | 2.25 | .04 | 0.60 | | | | |
| | Warmth | | | -0.35 | 0.22 | -.19 | -1.59 | .12 |
| | Rejection | | | 0.11 | 0.10 | .13 | 1.07 | .29 |
| | Chaos | | | -0.03 | 0.09 | -.04 | -0.36 | .72 |
| | Conflict | | | 0.30 | 0.17 | .22 | 1.85 | .07 |
| | Closeness | | | 0.01 | 0.18 | .01 | 0.08 | .94 |
| | Dependence | | | 0.08 | 0.13 | .07 | 0.65 | .52 |
| | Responsive Parenting | | | 0.11 | 0.17 | .08 | 0.62 | .54 |

1. $R^2 = 0.05$, $P < 0.05$; 2. $R^2 = 0.08$, $P < 0.05$; 3. $R^2 = 0.07$, $P < 0.05$; 4. $R^2 = 0.09$, $P < 0.05$; 5. $R^2 = 0.09$, $P < 0.05$; 6. $R^2 = 0.08$, $P < 0.05$; 7. $R^2 = 0.08$, $P < 0.05$

Table 5.27 presents the results of the multiple regression analysis, which assess the association of warmth, rejection, chaos, conflict, closeness, dependence and responsive caregiving on anxiety. The hierarchical multiple regression revealed that at model 1, Warmth contributed significantly in a negative direction ($B = -0.46$) to the regression model ($\beta = -.24$, $p = .01$), and

accounted for 5% ($R^2 = 0.05$) of the variance in anxiety. This indicating that if warmth increases, anxiety decreases by -0.46 units. Introducing the rejection in model 2, explained an additional 8% ($R^2 = 0.08$) of variation in depression and this change in the R^2 was significant to the model ($\beta = .20, p = .05$). Model 4 introduces the conflict variable which accounts for 9% ($R^2 = 0.09$) of the variance in anxiety which was also significant ($\beta = .22, p = .05$). Models 5 had a significant variance of 9% ($R^2 = 0.09$) and added closeness to the model, had no variables which contributed significantly. Similarly, model 6 with a significant variance of 8% ($R^2 = 0.08$) introduced dependence, had no variables contributing significantly. Finally, Model 7, had a significant variance of 8% ($R^2 = 0.08$), introduced responsive parenting presented similar results or no variables contributing significantly. Therefore table 5.27 presents anxiety predicts parental warmth, rejection and conflict predict anxiety.

Table 5.28 provides the scores from the regression analysis to predict depression of pregnant parents.

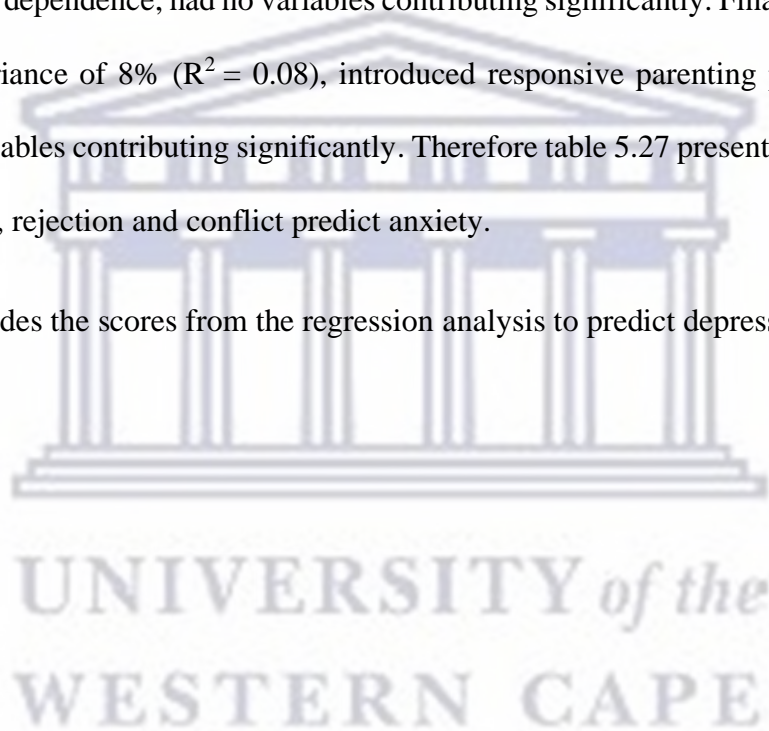


Table 5.28. Predicting parental depression of pregnant parents

| | | F | p | B | SE | β | t | p |
|-------------------|-----------------------------|----------|----------|----------|-----------|---------------------------|----------|----------|
| DEPRESSION | | | | | | | | |
| 1 | (Constant) | 1.05 | .31 | 0.19 | | | | |
| | Separating self from foetus | | | -0.04 | 0.04 | -.16 | -1.02 | 0.31 |
| 2 | (Constant) | 2.37 | .11 | 0.38 | | | | |
| | Separating self from foetus | | | 0.00 | 0.04 | .01 | 0.03 | 0.98 |
| | Affection | | | -0.09 | 0.05 | -.34 | -1.90 | 0.07 |
| 3 | (Constant) | 2.06 | .12 | 0.39 | | | | |
| | Separating self from foetus | | | 0.02 | 0.04 | .08 | 0.43 | 0.67 |
| | Affection | | | -0.08 | 0.05 | -.30 | -1.65 | 0.11 |
| | Fantasy | | | -0.04 | 0.03 | -.21 | -1.18 | 0.25 |
| 4 | (Constant) | 1.84 | .14 | 0.43 | | | | |
| | Separating self from foetus | | | 0.00 | 0.05 | .02 | 0.09 | 0.93 |
| | Affection | | | -0.12 | 0.06 | -.43 | -1.97 | 0.06 |
| | Fantasy | | | -0.03 | 0.03 | -.18 | -0.98 | 0.33 |
| | Interaction | | | 0.05 | 0.05 | .23 | 1.07 | 0.29 |
| 5 | (Constant) | 1.47 | .23 | 0.45 | | | | |
| | Separating self from foetus | | | 0.01 | 0.05 | .04 | 0.21 | 0.84 |
| | Affection | | | -0.11 | 0.07 | -.39 | -1.63 | 0.11 |
| | Fantasy | | | -0.03 | 0.03 | -.19 | -1.01 | 0.32 |
| | Interaction | | | 0.05 | 0.05 | .22 | 1.01 | 0.32 |
| | Sensitivity | | | -0.02 | 0.05 | -.08 | -0.41 | 0.69 |

1. $R^2 = 0.00$, $P < 0.05$; 2. $R^2 = 0.07$, $P < 0.05$; 3. $R^2 = 0.08$, $P < 0.05$; 4. $R^2 = 0.08$, $P < 0.05$; 5. $R^2 = 0.06$, $P < 0.05$

Table 5.28 presents the results of the multiple regression analysis of the association between depression and the variables (Separating self from foetus, affection, fantasy, interaction and sensitivity) during pregnancy. The results show that none of the variables predict depression during pregnancy.

Table 5.29 provides the scores from the regression analysis to predict stress of pregnant parents

Table 5.29. Predicting parental stress of pregnant parents

| | | F | p | B | SE | β | t | p |
|---------------|-----------------------------|----------|----------|----------|-----------|---------------------------|----------|----------|
| STRESS | | | | | | | | |
| 1 | (Constant) | 1.67 | .20 | 0.57 | | | | |
| | Separating self from foetus | | | -0.11 | 0.08 | -0.21 | -1.29 | 0.20 |
| 2 | (Constant) | 1.25 | .30 | 0.78 | | | | |
| | Separating self from foetus | | | -0.06 | 0.09 | -0.12 | -0.67 | 0.51 |
| | Affection | | | -0.10 | 0.11 | -0.17 | -0.92 | 0.37 |
| 3 | (Constant) | 1.22 | .32 | 0.80 | | | | |
| | Separating self from foetus | | | -0.03 | 0.10 | -0.05 | -0.26 | 0.80 |
| | Affection | | | -0.08 | 0.11 | -0.13 | -0.69 | 0.50 |
| | Fantasy | | | -0.08 | 0.07 | -0.20 | -1.08 | 0.29 |
| 4 | (Constant) | 1.23 | .32 | 0.88 | | | | |
| | Separating self from foetus | | | -0.06 | 0.11 | -0.12 | -0.58 | 0.57 |
| | Affection | | | -0.16 | 0.13 | -0.27 | -1.20 | 0.24 |
| | Fantasy | | | -0.07 | 0.07 | -0.16 | -0.88 | 0.39 |
| | Interaction | | | 0.12 | 0.10 | 0.25 | 1.11 | 0.28 |
| 5 | (Constant) | 1.12 | .37 | 1.00 | | | | |
| | Separating self from foetus | | | -0.03 | 0.11 | -0.06 | -0.30 | 0.77 |
| | Affection | | | -0.11 | 0.15 | -0.19 | -0.76 | 0.45 |
| | Fantasy | | | -0.07 | 0.08 | -0.18 | -0.97 | 0.34 |
| | Interaction | | | 0.11 | 0.11 | 0.22 | 1.00 | 0.33 |
| | Sensitivity | | | -0.10 | 0.12 | -0.17 | -0.85 | 0.40 |

1. $R^2 = 0.02$, $P < 0.05$; 2. $R^2 = 0.01$, $P < 0.05$; 3. $R^2 = 0.02$, $P < 0.05$; 4. $R^2 = 0.01$, $P < 0.05$; 5. $R^2 = 0.02$, $P < 0.05$

Table 5.29 presents the results of the multiple regression analysis of the association between stress and the variables (Separating self from foetus, affection, fantasy, interaction and sensitivity) during pregnancy. The results show that none of the variables predict stress during pregnancy.

Table 5.30 provides the scores from the regression analysis to predict anxiety of pregnant parents.

Table 5.30. Predicting parental anxiety of pregnant parents

| | | F | p | B | SE | β | t | p |
|----------------|-----------------------------|----------|----------|----------|-----------|---------------------------|----------|----------|
| ANXIETY | | | | | | | | |
| 1 | (Constant) | 2.90 | .10 | 0.47 | | | | |
| | Separating self from foetus | | | -0.09 | 0.06 | -.27 | -1.70 | .10 |
| 2 | (Constant) | 1.54 | .23 | 0.40 | | | | |
| | Separating self from foetus | | | -0.11 | 0.06 | -.31 | -1.71 | .10 |
| | Affection | | | 0.04 | 0.07 | .09 | 0.49 | .63 |
| 3 | (Constant) | 1.14 | .35 | 0.40 | | | | |
| | Separating self from foetus | | | -0.09 | 0.07 | -.27 | -1.38 | .18 |
| | Affection | | | 0.05 | 0.08 | .11 | 0.60 | .56 |
| | Fantasy | | | -0.03 | 0.05 | -.11 | -0.62 | .54 |
| 4 | (Constant) | 0.91 | .47 | 0.43 | | | | |
| | Separating self from foetus | | | -0.11 | 0.07 | -.30 | -1.46 | .15 |
| | Affection | | | 0.02 | 0.09 | .04 | 0.18 | .86 |
| | Fantasy | | | -0.03 | 0.05 | -.10 | -0.52 | .61 |
| | Interaction | | | 0.04 | 0.07 | .12 | 0.52 | .59 |
| 5 | (Constant) | 1.09 | .38 | 0.56 | | | | |
| | Separating self from foetus | | | -0.08 | 0.08 | -.22 | -1.02 | .31 |
| | Affection | | | 0.07 | 0.10 | .17 | 0.68 | .50 |
| | Fantasy | | | -0.03 | 0.05 | -.13 | -0.67 | .51 |
| | Interaction | | | 0.03 | 0.07 | .09 | 0.40 | .69 |
| | Sensitivity | | | -0.11 | 0.08 | -.26 | -1.32 | .20 |

1. $R^2 = 0.05$, $P < 0.05$; 2. $R^2 = 0.03$, $P < 0.05$; 3. $R^2 = 0.01$, $P < 0.05$; 4. $R^2 = -0.01$, $P < 0.05$; 5. $R^2 = 0.01$, $P < 0.05$

Table 5.30 presents the results of the multiple regression analysis of the association between anxiety and the variables (Separating self from foetus, affection, fantasy, interaction and sensitivity) during pregnancy. The results show that none of the variables predict anxiety during pregnancy.

5.9. Conclusion

The results of the study indicate that there is a positive relationship between parental health and parental perceptions of nurturing care. For parents with children aged 0-2, there is a significant positive relationship between parental mental health (depression, anxiety, stress) and conflict, dependence, chaos, and rejection. And there is a significantly negative relationship between parental mental health (Depression, stress and anxiety), and warmth, closeness and responsive parenting. For pregnant parents, there is a significant positive

relationship between parental mental health (depression, stress and anxiety) and parent-foetus attachment (separating self from foetus, affection, fantasy, interaction and sensitivity). Warmth, rejection and conflict predict depression, stress and anxiety.



CHAPTER 6

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

6.1. Introduction

The current study aimed to assess the association between parental mental health (mental well-being) and the parental perceptions of nurturing care in the first 1000 days. This chapter consists of the discussion of the findings found in chapter 5, according to the aims and objectives of this study; by relating it to the Nurturing Care Framework which underpins this study. This chapter will also make use of both local and international literature which relates to the current study. Thereafter, the limitations of the current study and the recommendations for future research, will be presented.

6.2. Parental mental health in the first 1000 days

The notion of parental mental health has been studied for many years. The transition to parenthood is a life-changing event for both mother and father and this change can affect parents differently. For both parents, the transition is often associated with physical, hormonal and neurobiological changes (Fisher, 2017; Saxbe et al., 2018). These changes are often accompanied by distress and affect parental mental health. Gjerdet et al. (2017) and Weissman (2016) suggest that parental distress can negatively affect the child and how they develop, particularly during the first two years of life. The most common researched forms of parental distress during pregnancy and post-partum, is depression, anxiety and stress (Schetter & Tanner, 2012; Satyanarayana, Lukose, & Srinivasan, 2011). This parental distress can be problematic as it can have an immediate impact on the developing foetus, can impact birth outcomes, but more importantly, it can also have lifelong effects on both parents, the child and even the family as a whole (Schetter & Tanner, 2012).

The first objective of the current study was to assess the prevalence of parental mental health in the first 1000 days. Results of the current study reveal that parents with children aged 0-2 experience stress to some degree during the first 1000 days. However, results from the pregnant parent group revealed that parents do not experience stress, anxiety nor depression. This is in alignment with literature which explains that during pregnancy, stress tends to decrease however after birth, stress increases (Liou, Wang, & Cheng, 2014).

Parental stress is often associated with various components such as physical and biological changes, as well as the quality of the parent-child relationship. Parental stress is also associated with things such as child characteristics and temperament, environmental factors as well as the quality of partner relationships (Breiner et al., 2016). With this said, it is evident that there are numerous factors which contribute to parental stress, which in turn affects the type of care in the parent-child dyad.

For example, factors such as social support can affect mental health (Harandi, Taghinasab, & Nayeri, 2017). Having support from others can have an effect on the parent child relationship, and also the level of parental stress. Moreover, parents' perceptions of social support can function as a protective factor and may impact psychological outcomes (Halstead, Griffith & Hastings, 2018), such as parental mental health. Recent findings have shown that for parents who were unmarried at the time of their pregnancy, announcing their pregnancy, caused anxiety and fear (van Zyl & van Wyk, 2020). This study by van Zyl and van Wyk (2020) and also Biaggi et al., (2016) found that these participants had a lack of support which made them more vulnerable to depression and anxiety. On the contrary, in the current study, majority of the pregnant parents were married, and identified their spouse or partner as their secondary support system. This is supported by Biaggi et al. (2016) who reported that parents who have good social support, are less likely to suffer from emotional distress when they experience stressful

life changes and events. This could possibly be why pregnant parents reported to have no experience with anxiety or depression.

6.3. Prevalence of Nurturing Care in the parent child relationship in First 1000 days (parents with children aged 0-2)

The second objective of the study seeks to assess the prevalence of nurturing care in the first 1000 days. The results of the study indicated that parental nurturance is prevalent in the parent-child/foetus relationship. Therefore, this objective is split into two sections based on the study population 1) parents with children aged 0-2 and 2) pregnant parents. For the first part, the findings suggest for the parental group with children aged 0-2, parenting was warm, while the parent-child attachment includes closeness, positive dependence as well as responsive parenting.

Nurturing care is multidimensional and goes beyond just seeing to the basic needs of a child. Nurturing care, according to the Nurturing Care Framework, is made up of five components which include good health, adequate nutrition, safety and security, opportunities for early learning and responsive caregiving (WHO et al., 2018). To reach optimal development, all five components need to be present particularly in the parent-child dyad, and should start even before pregnancy (Bhardwaj et al., 2017; Persson, 2017). In this study, the health and well-being components, as well as the responsive caregiving component were applied to the population, to assess the prevalence of parental nurturance in the first 1000 days. In the population, these components were met to an extent.

6.3.1. Parenting

During the first 1000 days, children are particularly dependent on their primary caregiver, which is usually their parents (Adebiyi et al., 2021, Petersen et al., 2021 cited in Roman, Davids & Sonn, 2021). Therefore, parenting plays a crucial role in child development. More

specifically, parenting styles and practices are vital for positive child development, particularly during the formative years. Results of the current study suggest that for parents with children aged 0-2, positive parenting is prevalent among participants, as results suggest high scores in parental warmth, and lower scores on chaos and rejection.

6.3.1.1. Warmth

Winston and Chicot (2016) highlight the importance of love, support and time in the parent-child relationship. This is essential for the child development and well-being, but also for future generations. Research has shown that children raised in warm and nurturing homes, are more likely to be warm and nurturing toward themselves, and also become warm and nurturing parents themselves (Madden et al., 2015). Parental warmth is also essential for child development as it acts as protective factor against childhood stress, such as abuse (Carroll et al., 2013). Moreover, parental warmth includes parental praises, support and a display of affection which positively influences the parent-child interactions and relationship (Lam, Chung, & Li, 2018). Results from the current study concur with this as parents strongly agree with the notion of showing their baby warmth by indicating “*I let my baby know I love him/her*”. Research suggests that love and affection between parent and child, results in happier and less anxious children (Johnson, 2016). This in turn could positively affect the parent-child relationship as the child feels a sense of security, safety, and they feel loved. This influences positive self-esteem as parents are showing interest in them and making them feel special. Therefore, for children, parental warmth is not just about knowing they are loved, but also feeling that they are loved.

However, parental warmth does not only include affection, but it also includes involvement. Research has shown that parental warmth and involvement, has been associated with parent-child reciprocity (Suchman et al., 2007), which pertains to the process of communication

between the baby and parent (Landry, 2014). In agreement with the aforementioned statement, parent responses in the current indicated that parents showed their involvement by making time for their children by stating that *“I set aside time to talk to my baby about what is important to him/her”*. Although the parents in the current study have young children who are aged between 0 and 2 years, communication still occurs and is essential (Landry, 2014). In the baby-parent dyad, babies may not be able to communicate via words, especially in the first year, but they can communicate by body language and facial expressions. Parents can however communicate with words, and speak to their child and also make use of body language and facial expressions. Therefore, parental warmth during the formative years, can be shown as well as felt. In accordance, parents show their love for their children by expressing excitement and joy *“I enjoy being with my baby”* and *“I am always glad to see my baby”* by showing love, affection and warmth to their babies, can positively influence child development.

Additionally, parents who are warm, also help children learn to self-regulate their emotions and behaviours (Gleason et al., 2016; Fay-Stammbach, Hawes, & Meredith, 2014; Rosanbalm et al., 2017). Therefore Ling, Chen and Chiu (2020) suggest that parental warmth is also associated with child self-esteem. Negative parenting practices, which do not include warmth, affection or support, may aggravate children’s emotional dysregulation and may lead to psychological distress, and children may adapt risky behaviours later in life (Chen et al., 2019). Thus, a lack of parental warmth and involvement, may validate negative feelings children may have about their importance to their parents. During the first 1000 days in particular, children are dependent on their parents and primary caregivers for emotional regulation, hence during this period, sensitivity and warmth takes precedence over behaviour management (Pem, 2015; Suchman et al., 2007).

6.3.1.2. Rejection

A negative dimension of parenting is parental rejection toward child. Rejection refers to the absence of warm loving behaviour such as cuddling, singing, playing emotions from the parents and the presence of negative feelings such as dislike and hatred toward their child (Bhatti, 2013). In accordance, Hadjicharalambous and Demetriou (2021) suggest that negative parental dimensions such as rejection include explicit communication of negative feelings toward the child, such as criticism and disapproval. This study found that parents did not display any feelings of rejection toward their children. Parents responded that they did not agree with the statement “*sometimes I feel like I can’t be there for my baby when he/she needs me*” and indicated that it is not true at all that “*sometimes my baby is hard to like*”. This indicates that parents feel that they have enough time, or make time to spend with their baby. This links back to the previously mentioned statement of parental involvement includes time spent in the parent-child dyad. Moreover, parents in the study indicated to be interested in their child’s lives, and they do not feel like the child is too much of a burden as they make time for their child.

6.3.1.3. Chaos

Implementing routine can be a way of reducing chaos in the parent child-relationship and having set routine and schedules are important for child development. For example, having a set sleeping pattern or set having rules in the home, is important for physical health and psychological well-being. Having a sleeping schedule helps the child with getting enough sleep. In addition, having discipline and routines during the day in the home is also essential for night time sleeping (Staples, Bates, & Petersen, 2015). In alignment, findings in the current study suggest that parents have set routines, they do not change the rules at home all the time, and they do discipline their children. For the items “*I let my baby get away with things I really should allow*” and “*when my baby gets in trouble, my reaction is not very predictable*” parents

indicated that this is not very true in their parent-child dyad and the item *“I get mad at my baby with no warning”* is not true at all. Therefore, it can be said that parents in the current study do not act unpredictably, thus children know what to expect, and they do not allow their children to get away with things they should not be doing. This indicates that they have discipline and rules in the home and parent-child dyad, thus avoiding chaos to an extent.

6.3.2. Parent-child attachment

The results of the current study indicate that parents perceive there to be strong attachment in their parent-child relationship, with closeness being prevalent and conflict and dependence occurring to a certain extent.

6.3.2.1. Closeness

This study found that parents perceived to have a close attachment bond with their baby. Previously, closeness has also been described as the emotional and behavioural connections which are warm, supportive, is built on trust and includes communication in the parent-child relationship (Laursen & Collins, 2009). However more recently, closeness in the parent child relationship has been defined as the strength of the relationship between the parent and the child (Stepney et al., 2015). For babies, closeness includes feeling understood by his/her parent, feeling comfortable and having relationship satisfaction (Stepney et al., 2015). Findings in the current study concurs as parents perceive the items *“I share an affectionate, warm relationship with my baby”* and the reverse scored item *“my baby is uncomfortable with physical affection or touch from me”* to be true. These items indicated that parents felt that the relationship with the child is warm and the baby feels comfortable with affection from the parent. Moreover, as mentioned previously, communication and support are associated with closeness. Parents in the current study corroborates with this by indicating that *“when I praise my baby, he/she beams with pride”*. In this study, parents are positively communicating their support for their

child, which in turn also leads to social competence later in the child's life. This gives the child the ability to be confident enough to have meaningful interactions with others (Junge, et al., 2020). Thus, it is evident in the current population, closeness in the parent-child relationship is linked to warmth, comfort and support.

6.3.2.2. Conflict

Conflict is a negative component of the parent-child relationship. According to Weaver et al. (2015) conflict in the parent child relationship includes negative interactions and behaviours of both parent and child. These negative interactions and behaviours include, but are not limited to disagreements, anger and sometimes violence. In the current study, findings suggest that conflict occurs to some extent in the parent-child relationship. Conflict can vary in frequency and intensity and this is often linked to parenting styles (Bi et al., 2018). In relationships where the child was raised by means of authoritarian and neglectful/uninvolved parenting styles, there is more likely to be conflict. Authoritarian and neglectful parents are more likely to have high demandingness and often lacks warmth and emotional support (Bi et al., 2018; Sawar, 2016), which often leads to more intense conflict in the parent-child dyad. For authoritarian parents, obedience is important and verbal give and take is not allowed (Bi et al., 2018), meaning children are not allowed to ask questions and there is no reasoning behind rules (Sawar, 2016). In the current study, parents viewed the item *"my baby sees me as a source of punishment and criticism"* as something which is not true. Therefore, it can be assumed that parents assume a more authoritative or permissive parenting styles. This is in alignment with the aforementioned that warmth is prevalent in the parent-child dyad.

6.3.2.3. Dependence

During the formative years, the developing foetus and the child are dependent on their parents to see to the five components of the nurturing care framework, adequate nutrition, good health, safety and security, responsive caregiving and also ensure that they have opportunities for early

learning (WHO et al., 2018). For example, children are dependent on their mother to breastfeed, as a means to ensure he/she receives adequate nutrition (UNICEF, 2017). The baby will generally indicate their need by crying or becoming fussy. In turn, the mother will breastfeed or bottle feed their baby. This links back to the previously mentioned statement of the importance of routine (Staples et al., 2015). With time, parents (both mother and father) learn that with time, their child becomes hungry at certain times. Thus, they know when their child becomes fussy or cries at a certain time, they know which need needs to be met. Once the need is met, the child is satisfied. Therefore, it is understood that dependence in the parent-child relationship is rooted in the experiences and the type of care they receive during the first 1000 days.

The notion of dependence can be both positive and negative. Positive dependence, also known as interdependency, refers to when dependence involves a mutual give and take, to the extent to which outcomes of one thing is dependent on and influences another (Fowler, et al., 2020). In the context of the current study, interdependence can be used to describe the extent to which child outcomes is dependent on the parent and also influences the parent. Furthermore, interdependency includes a way of getting needs met (Gonzalez-Mena, 1997). For example, during the formative years' children need their parents to see to their needs, and when this need is met, children learnt to trust the parent and also gain a secure attachment with their parent. And consequently, this influences the quality of the parent child relationship. On the contrary negative dependency or Co-dependency describes dependency where one person is more dependent and could result in resentment and dissatisfaction.

Dependence is also linked to parent styles and parenting practices. In homes parenting is not warm and they are emotionally neglected, this often leads to negative dependence. Thus, the child may feel that their needs are not worth attending to. In turn children may seek approval

or attention from their parents. These children might try to get the attention and affection they need from their parents. For example, findings in the current study reveal that parents indicated that the item *“my baby asks for my help when he/she really does not need help”* was untrue. Although the current study reported it to be untrue and this may be due to the child being too young in this instance, this however does not mean that dependence is not prevalent. Furthermore, another example from the current study, the item *“he/she reacts strongly to separate from me”*, was true. Therefore, the current study indicating that dependence is prevalent in the parent-child relationship. However, this does not mean that the parent-child attachment is not secure or based on negative dependence. Children learn to outgrow the dependence on their parents. For example, as they develop, they outgrow the dependence of needing to be breastfed, but this again goes back to parenting styles and parenting practices. Another example would include children learning that when their mother/father goes away, she will return; thus, the dependence of their parents’ physical presence eventually becomes less. Similarly, the current study also reported that parents indicated that the item *“I often think about my baby when at work”*. This indicates that parents can be dependent on their baby too. Overall, it is evident from the current study that in the parent-child dyad dependence is prevalent.

6.3.3. Responsive Parenting

The findings of the current study suggest that during the first two years of life after life, responsive parenting is prevalent. Parents have reported that they are responsive toward their parents.

In accompaniment to parent-child attachment, responsive parenting is essential for nurturing care and ultimately for emotional and social development of the child (Kerr, 2015). Responsive parenting is the foundation for long term healthy child development (WHO et al., 2018). As a parent, it is easy to identify the basic and physical needs of their child. However, the emotional needs are not as easy to identify, particularly during the first 1000 days when children are not

able to communicate their needs and wants effectively. Parents therefore need to become in tune and aware of their children. Being more aware of the child's emotional needs, can be attained through the back-and-forth interaction between parent- child dyad, during the first 1000 days. During this phase, babies typically interact by means of babbling, facial expressions and smiles amongst others and a responsive parent would typically respond by making similar gestures. Findings in the current study attains to this as parents indicated that the items *“Do you respond to your baby when your baby 'speaks' to you (eg. coo's, babbles, smiles or any form of communications such as moving in the womb)”* was true, and that they did respond when their baby communicates. Repeated positive interaction such as this, serves as communication between the pair and helps parents understand the needs of their babies, but also helps the baby gain trust (Landry, 2014).

When children feel comforted, especially in times of stress, and parents provide responsive warm care, children are more likely to feel secure and will later learn to be self-efficient as they progress thorough life (Rosanbalm, & Murray, 2017). In alignment, the current study reveals that parents indicated that the item *“When your baby want to be held, do you respond to the baby by holding him/her”* was true. When their child needs emotional care and comfort, parents respond by attending to their needs. Consequently, this helps foster self-regulation which is essential for well-being across an individual's lifespan (Gleason et al., 2016; Fay-Stammbach et al., 2014), as parents who are responsive, allow children to manage their thoughts and feelings.

Moreover, responsive parenting is also associated with cognitive development. Research suggests that early responsive care results in higher volumes of hippocampal volumes- the brains memory performance (Landry, 2014)- which is beneficial for optimal development of psychosocial factors such as the ability to respond to a stressor (Scholtz, 2013). Therefore, it

can be said that responsive parenting is also associated with cognitively responsive behaviours such as maintaining child attention, their interests and providing support where necessary (Landry, 2014). Findings in the current study support this notion as parents indicated that the item *“Do you acknowledge and praise your baby when he/she does something new”* was true. This implies that when parent acknowledge and praise their children, children feel seen, validated and confident.

6.4. Prevalence of nurturing care in parent-foetus relationship

The second part of the second objective was aimed at prevalence of nurturance in the parent-foetus relationship. This was measured by assessing the parent-foetus attachment. Parental attachment starts before long before the birth (Bhardwaj et al., 2017; Persson, 2017). Prenatal attachment refers to parent’s emotions, perceptions and behaviours regarding their developing child (van Bakel et al., 2013). van Bakel et al., (2013) further explains that although parent-child attachment is often associated with parents showing care, foetal-parent attachment is associated with parental development of feelings of love and protection. The results of the study indicated that parental nurturance is prevalent in the parent-child/foetus child relationship. The parent-foetus relationship includes parenting that is affectionate, sensitive and interactive.

6.4.1. Separating self from foetus

The variable separating self from foetus, pertains to the notion of parents being able to recognize that their developing child, is an individual who has their own mind, thoughts, and feelings. A study conducted by the Centre for Family Research at the University of Cambridge, found that parents who positively anticipates their child by recognizing the child as an individual, who has their own thoughts and feelings, are considered to be balanced and show ‘mind-mindedness’ (University of Cambridge, 2018). Moreover, this study concluded that

parents who are aware of their baby during pregnancy, often have healthy behaviours during pregnancy. In accordance, the current study found that parents were able to separate themselves from the foetus as they are mindful of their baby being an individual. For example, parents reported that they plan to do things with the baby once they are born, and buying things for the baby once the baby is born; indicating that parents are aware that their unborn baby, is not only an individual, but the baby also has their own mind, needs and will have their own experiences, for which they are responsible (*“I plan the things I will do with my baby”* and *“I buy/make things for the baby”*).

6.4.2. Affection

Parental attachment is often associated with parental attachment during the perinatal phase. Parental attachment is said to start in the parents mind long before birth (Trombetta, et al., 2021). Although parents’ emotional involvement with the foetus during pregnancy is questionable, research has claimed that there is an affectionate tie between the parent and the unborn baby (Louw & Louw, 2014). This is supported by the current study which reports that parents are excited when they think of their unborn child. Similarly pregnant parents in the study also indicated that they show affection toward their unborn child by wrapping their arms around their own/ their partners tummy (*“I get very excited when I think about the baby”*; *“I like to sit with my arms around my/ my partners tummy”*). This sign of affection speaks to emotional ties, and builds strong attachment bond between parent and child/foetus, and between partners as well.

6.4.3. Sensitivity

Findings in the current study suggest that sensitivity is prevalent in the parent child relationship. Research suggests that sensitivity or parental sensitivity often results in positive child development (Mesman, et al., 2012). Parental sensitivity is also closely linked with responsive

parenting and the aforementioned ‘separating self from foetus. Parents who are sensitive, are aware of and capable of understanding their child and their emotional needs (Aarestrup, et al., 2020). This study found that parental sensitivity was prevalent in the foetus-parent relationship. Parents feel that their unborn baby is able to hear what they are saying. Thus, indicating that a developing foetus can hear. Similarly, Webb et al., (2015) conducted a study on auditory plasticity before full gestation, and found that babies can hear their mothers’ voice and sound even before birth. Similarly, Komori et al. (2019), who found that during sensitive periods such as pregnancy, verbal abuse can impact the developing foetus auditory development. It can thus be deduced that parental experiences during pregnancy, influences how a baby develops in-utero. This perspective is also shared by pregnant parents in the current study who agree that the things they do, will make a difference to the baby (*“I know that the things I will do, will make a difference to the baby”*).

6.4.4. Interaction

A study conducted by the University of Cambridge reported that mothers who interact with their babies during pregnancy, were more likely to do so in a positive way after birth (University of Cambridge, 2018). Interaction with the developing foetus helps with strengthening parent-child bonding and attachment (Atashi, Kohan, Salehi, & Salehi, 2018). In the current study, parents sometimes interact with their child through touch (of the stomach) and imagination. Similarly, a study on gentle tactile stimulation on the foetus, reported that mothers using tactile stimulation, such as touching their stomach, results in the foetus moving in the womb (Wang et al., 2015). This is an interaction between the parent and foetus dyad. Research has also found that tactile stimulation, or touching the womb as a means to interact with the foetus, can positively affect the child personality (Wang et al., 2015).

6.4.5. Fantasy

During pregnancy, parents lack some information about the baby such as how they actually look, feel smell, etc., thus, they imagine, dream and have fantasies of their baby. Therefore, the notion of fantasy is associated with dreams and imagination (Schredl, 2012; Slade et al., 2009). Dreams – a mental activity occurring during sleep and can be remembered upon awakening- has a way of evoking emotions which often require adaption (Lara-Carrasco et al., 2013). The current study found that parents often dream about their baby. Research has shown that many pregnant women have at least one dream about their baby or about their pregnancy, and these dreams tend to become more frequent as the pregnancy progresses (Lara-Carrasco et al., 2013). This study also reported that parents know why their baby is moving. According to Nowlan (2015), foetal movements happen often during the day. The foetus does however stop moving during sleep but occurs regularly during the day (Linde et al., 2016). This indicates that there is a pattern or routine. This links back to the aforementioned notion of sensitive and responsive parents being in tune with their baby (Britto et al., 2017; Lachman et al., 2019). Parents are aware of the patterns and the routines of their baby. Thus, the findings of the current study indicate that parents are aware of their baby.

6.5. Relationship between parental mental health and parental perceptions of nurturing care during the first 1000 days

The first 1000 days is a crucial period for child development. This period lays the foundation healthy child development (Warren & Consultant, 2011; WHO et al., 2018), which will affect development across the lifespan. During this period, children are dependent on their parents, as they are the primary source of support and providing care, which leads to optimal development. Since children are connected to their parents in many ways, the mental health of parents is connected to children and impacts child development. Mental health refers to the

psychological state of an individual being without the presence of mental illness (Chatterjee & Saha, 2018), influencing their daily functioning and how they progress through life. Therefore, mental health influences parenting and consequently, child development. Parents who have mental health problems such as stress, anxiety and depression- only to mention a few- may have a difficult time caring for their child compared to a parent who has no mental health challenges. With this said, the type of care parents provide for their children during the first 1000 days period, will influence how they develop. Therefore, the mental health of the parent is essential for child development (Heuckendorff et al., 2021).

The third objective for the current study was to assess the relationship between parental mental health and parental perceptions of nurturing care in the first 1000 days. In the current study, for the parents with children aged 0-2 years, a positive significant relationship exists between parental mental health (depression, anxiety, stress) and conflict, dependence, chaos, and rejection. On the contrary there is a significantly negative relationship between parental mental health (depression, stress and anxiety), and warmth, closeness and responsive parenting. The study also found that for pregnant parents, there is a significant positive relationship between parental mental health (depression, stress and anxiety) and parent-foetus attachment (separating self from foetus, affection, fantasy, interaction and sensitivity). Therefore, the hypothesis “there is a significant relationship between parental mental health and parental perceptions of nurturing care in the first 1000 days” was found to be true.

Recent research based on parental mental health in the first 1000 days corresponds with the aforementioned hypothesis. A study based on maternal mental health in pregnancy and child behaviour reported that, parental mental health problems are associated with numerous factors such as emotional involvement- which speaks to parental warmth-, neglect, and hostility in the parent-child dyad (Satyanarayana et al., 2011). In accordance, Schwartz et al. (2017) reports that parental warmth and positive parenting is associated with lower levels of anxiety and

depression. Butterfield et al. (2021) also claims that parental warmth is associated with mental health, and acts as a way to decrease the chance of anxiety. Accordingly, recent research perpetuates that positive parenting which include warmth, acceptance and nurturance, is important for creating a foundation for the effective process of child development (Hetherington & Parke, 1986, cited in Sajid & Riaz, 2016). Furthermore, research has also found that parental warmth, in particular warmth of single mothers, is often associated with mothers being more vulnerable to stress and they are more likely to engage in rejecting parenting behaviours (Daryanani et al., 2016). However, this study found that stress was not really prevalent, and this could be as a result of their support system. As parents in this study have reported that they have the support of their partners or spouse. Therefore, it can be said that parental stress is associated with parental warmth, but also to support structure.

On the contrary to parental warmth, negative parenting, has been linked to increased levels of stress (Jaremka et al., 2013). Research has shown that children who have experienced negative parenting- which includes rejection- reports higher levels of anxiety (Festa & Ginsburg, 2011). Ling, Chen, and Chiu (2020) has also found that rejection in the parent child relationship, results in negative self-esteem among children, which also results in the inability to manage stress. Furthermore, parental rejection has also been related to behavioural problems in children (Rohner et al., 2012). This in turn can cause chaos or conflict between the parent and the child, as they are experiencing negative feelings in the relationship. This means that authoritarian parents, are not warm, do not provide care which is sensitive which can cause dependence, rejection and chaos in the parent child relationship. In turn, children do not feel safe and secure, which ultimately affects the parent child attachment.

During pregnancy and after birth, there are changes happening which include but are not limited to hormonal changes, and social changes which include changes in the parent- role and responsibilities. Thus, women often suffer from post-partum depression. Post-partum mental

health challenges are often associated with a change in mood, sleep disturbances, loss of energy, guilt, irritability and also anxiety (Pearlstein et al., 2009). Consequently, this affects the quality-of-care parents provide for their children. Parents who have post-partum depression, or other mental health problems, are more likely to ensue authoritarian or permissive parenting roles (Prativa & Deebea, 2019). Ollendick and Grills (2016) also indicates that parents with anxiety can be overprotective and/or overinvolved, which hinders the child's ability to become independent. Therefore, it can be said that parenting is associated with mental health.

Based on the aforementioned, it becomes apparent that the quality of parenting, is associated with parental mental health. As previously mentioned, the transition to parenthood is coupled with many emotional, social and both physiological and psychological changes (Pearson et al., 2018). These changes are particularly prevalent for females during the child bearing years (Thapar et al., 2012). For years, many studies have been focused on postpartum depression, however this does not mean that parental mental health is not affected during pregnancy, and that it does affect the foetus child attachment. Since parenting starts before birth and parenting does not only happen when the baby is born, this means that changes are happening early on. These changes can be too much for some parents, and their emotional and psychological well-being starts to hinder their everyday functioning (Butler et al., 2014).

Moreover, during the first 1000 days, an important factor of healthy parenting includes seeking both antenatal and post-natal care to ensure the health of the mother and the child. Parents who have mental illness problems, are more likely to not seek antenatal care, are less likely to offer nurturing and sensitive care to their child (Bornstein et al., 2008; UNICEF, 2017, WHO, 2018). Pregnant women with mental health problems, such as depression, anxiety or stress, who lack motivation or whose daily functioning is being affected, are more likely to receive care either later in their pregnancy, or not at all (Butler et al., 2014). Moreover, research has found that fathers are less likely to seek help than mothers, and may be less likely to express their needs

(Darwin et al., 2017) As a result, they do not receive the necessary treatment or care, which in turn seeps into their daily life, affecting the way they feel, affects their parenting styles and practices, and essentially, the parent-child attachment. So, although the current study found that none of the foetal-parent attachment variables (sensitivity, fantasy, affection, interaction and separating self from foetus) were predicted by or associated with parental mental health problems; it does not mean that this true in all pregnant parents.

6.6. Implications

The formative years- the first 1000 days- is a crucial period as rapid growth occurs in terms of development (Pem, 2015). During this period the foundation for optimal development is set, and babies are completely dependent on their parents and primary caregivers. The quality of care they receive during this period, will impact their development, and will have lifelong impacts. If babies receive nurturance, responsive and sensitive care during pregnancy and after birth, chances are greater that the child will reach their developmental potential. However, if they do not receive nurturing care during this period, they will not reach optimal development (WHO et al., 2018).

In South Africa, there are still high rates of children who have stunted growth and are not reaching their developmental potential (Mandela, 2020). In addition, due to many life stressors, changes and parenthood, parental mental health is still prevalent. This ultimately influences parental capacity and child development. Therefore, this study assessed the relationship between parental mental health and parental nurturance during the first 1000 days. Thus, it is evident from research that parenthood is accompanied by many changes and challenges therefore, parent support is needed in the South African context, as many parents are living in conditions which may challenge the quality of care, parenting practices and styles (Ward, Makusha & Bray, 2015). Therefore, this research could be beneficial for future programmes, interventions and policies focused on the first 1000 days (Goldschmidt et al., 2021). The South

African literature on nurturing care and the first 100 days is still emerging therefore this study will contribute to the body of literature.

6.7. Limitations

Limitations for the current study are identified as:

1. The onset of COVID-19, meant that no in person research could be conducted. This meant that the primary researcher was not physically present should the participant or key informant have any queries. Although contact details were provided, participants might not have felt comfortable calling or emailing. However, by having the primary researcher physically present, could address this limitation.
2. As a result of COVID-19, the study had a small study sample of only 147 participants. Considering the large population of Cape Town, a study using a larger sample, may present different results. This limitation can be addressed by using a larger sample size.
3. This study used non-probability sampling technique which does not guarantee a true representation of the population. This also means that it is difficult to generalize findings. However different sampling techniques could be used to address this limitation.
4. Although the sample was conducted online and was available to participants from low, middle-, high socio-economic communities, not many participants from low-socio-economic communities answered. Majority of the participants were employed and had the support from either their partners or family. Additionally, majority of the participants who participated were of coloured decent. Therefore, the limitation would be generalizing the results to a low-, middle, high socio economic/ urban communities across mostly coloured cultural groups. However, this limitation could be addressed by having a research sample from both high and low socio-economic communities, of different ethnic and cultural groups.

5. This research was aimed at parents however only 13 fathers across the two groups ($n=1$ in pregnant parent group and $n=12$ in parents with children aged 0-2 group) participated in the study. Therefore, a larger sample of father participants would present different results. However, this limitation could be addressed by including a larger sample of fathers in future research.
6. This study made use of self-report questionnaires which could consist of bias and limitations. Participants may present themselves in a way which is more “socially acceptable” and that does not make them look bad. Consequently, this could affect results. However, this limitation can be addressed by collecting more data from family, friends and even collecting qualitative data would be beneficial and present different data.
7. This research used a cross sectional research approach, and this serves as a limitation as it only gives information at a specific point in time and may not contain valuable information that occurs before or after this period. To address this limitation, in future, research can use a longitudinal approach to gain information at a different point in time or for longer periods.

6.8. Recommendations

Further research studies are recommended in the field of parenting during the first 1000 days, as this is still an emerging field. It is recommended that the research looks at parenting and what factors influence parenting practices and styles, starting as early as conception. In fact, focus should be placed on individuals who are old enough, or planning, to be parents. The research could also look at parents, who were raised by parents with mental health problems, and assess how and if intergenerational transference of parental mental health problems influences parenting with their children now. The research could consider how this differs by gender considering this study had an imbalance in male and female participants. This research

could focus particularly on fathers' mental health and their perceptions of nurturing care during the first 1000 days. This study only focused on certain aspects of parenting practices, attachment etc. there is limited research on parenting during pregnancy.

This study has shown that a significant positive relationship does exist between parental mental health and parental nurturance. It is for this reason that early intervention is recommended during pre- and post-natal care to ensure children have the potential to reach optimal development.

Many studies focus only on depression during the first 1000 days. The most prevalent form of parental mental health was stress in the current study, so this could be used as a guide for organizations in terms of programme outcomes targeting the first 1000 days.

Further research could conduct the same study in the low- and high-income communities to determine the differences in result- implying that the researcher could determine to what extent socio-economic status plays a role in parental mental health and parental nurturance during the first 1000 days. The study could be conducted on a larger scale as well as at two different periods with the same sample- during pregnancy and after birth, to compare the results.

Many of the intervention and programmes focused on the first 1000 days, are based on nutrition, it is therefore recommended that funding be made available to incorporate the other components of the nurturing care framework (good health, responsive caregiving, safety and security, opportunities for early learning) into interventions and programmes. This should be implemented when parents go for the pre- and post-natal check-ups. Both parents and the developing child will benefit from early intervention. Hospitals staff should also get training on this as they will be better equipped to identify and managing parental mental health problems

6.9. Conclusion

This study focused on assessing the association between parental mental health and parental perceptions of nurturing care in the first 1000 days. The first 1000 days is a crucial time for child development, as what happens in this period, influences the developmental potential of the child and how they reach their developmental potential. During this period, children are particularly dependent on their primary caregivers- their parents. The type of care children receives and the type of relationship (positive or negative) they have with their parents, ultimately influences their developmental potential. The main results from this study indicated that there is a relationship between parental mental health and parental perception of nurturing care. The study also found that parental mental health (depression, stress and anxiety) is related to positive attachment in both pregnant parents and parents with children aged 0-2 years. It also predicts that negative attachment predicts parental mental health (stress, depression and anxiety). However, this study did find that none of the variables for foetal-parent attachment, predicted parental mental health problems. However due to limited research based on pregnancy and nurturance, it is difficult to find much research to support this view. Based on these findings, the hypothesis was met and the null hypothesis was rejected.

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APPENDIX A: QUESTIONNAIRE (Parents with children aged 0-2)

| Parental Perceptions of Nurturing Care and Parental Mental Health in the first 1000 days/ Indlelaabazaliabanakekelangayoabantwananendlelaabanakekelangayo isimosengqondokwintsu kuzokuqalaezili 1000 | | | | | |
|---|---|---|--|--|-------|
| Section A: Demographics | | | | | |
| Personal information / Nkcukachangawe/ persoonlikeinformatie | | | | | |
| Gender / Isini/Geslag | <input type="checkbox"/> Male/Indoda/Manlik | | <input type="checkbox"/> Female /Umfazi/ vroulik | | |
| Age/ Iminyaka/ ouderdom | Your age/IminyakaYakho/ Jououderdom: | | Age of your child/Iminyakayomntwana/ ouderdom van jou kind: | | |
| Race/ Ubuni/ Ras | Black | Coloured | White | Indian | Other |
| Home language/UlwimiL wakho/ huistaal | English | Afrikaans | IsiXhosa | isiZulu | Other |
| Highest Education Level Completed/Waph elaKubanieskolweni/ hoogsteonderwys vlakvoltooi | | | | | |
| Employment status / uyaphangelana/ werkstatus | <input type="checkbox"/> Employed <input type="checkbox"/> werksaam | | <input type="checkbox"/> Unemployed <input type="checkbox"/> engasebenzi <input type="checkbox"/> werkloos | | |
| Do you receive a grant/ Uyaifumanainkxaso yemalika rhulumente/ kryjy 'n toelaag | <input type="checkbox"/> Yes <input type="checkbox"/> Ewe <input type="checkbox"/> Ja | | <input type="checkbox"/> No <input type="checkbox"/> Hayi <input type="checkbox"/> nee | | |
| If yes, specify/Ubauyaifu manacacisauthiye yiphi/ indienja, spesifiseer | <input type="checkbox"/> Child grant <input type="checkbox"/> Eyo/Abantwana <input type="checkbox"/> Kinder Toelaag | <input type="checkbox"/> Pension <input type="checkbox"/> Ipenshoni <input type="checkbox"/> pensioen | <input type="checkbox"/> Disability <input type="checkbox"/> Eyokukhu bezeka | <input type="checkbox"/> Other <input type="checkbox"/> Nezinye <input type="checkbox"/> ander | |
| Household Structure | | | | | |
| Number of people in the household?/ Nihlalanibangaphie ndlini/ Getalmense in U huishoud | Children/ abantwana/Kinders _____ | | Adults/ abantuabadala/ Volwassenes _____ | | |

| | | | | | |
|---|--|--|--|---|---|
| Family structure/Uhlalano baniendlini/gesinsst ruktuur | Married/ Nditshatile/ Getroud | Single and not living together/ Anditshatanga/ enkelloope ndenblynies aamnie | Widowed / Ndishonel we/weduw ee | Divorced/ Ndidivosile /geskei | Living with extended family/ ndihlalanezihlobo/ woon meet uitgebreidefamilie |
| Head of the house / ngubaniintloko yom zi | <div> <input type="checkbox"/> Myself /Ndim/ ek <input type="checkbox"/> My spouse or partner/ Ngumlingani wam/ my eggenoot <input type="checkbox"/> My mother/NguMa ma wam. My ma </div> <div> <input type="checkbox"/> My Grandmother/Grandfather/ UguMakhuluokanyeTakhuluwam/ my ouma of oupa <input type="checkbox"/> Member of extended family/Isihlobosam (malume/makazi/mzala)/ lid van uitgebreidefamilie <input type="checkbox"/> My father/ Ngu Tata wam/ my pa </div> | | | | |
| Parenting Care and Support | | | | | |
| Do you take any medication/ Uyawathathanaamay eza/ neem u medikasie | <input type="checkbox"/> Yes/ <input type="checkbox"/> Ewe <input type="checkbox"/> ja | | <input type="checkbox"/> No <input type="checkbox"/> Hayi <input type="checkbox"/> nee | | |
| What type of medications do you take/ kubauyawathatha, uthathaenjani/ watsoormedikasie vat U | <input type="checkbox"/> Anxiety <input type="checkbox"/> Ixhala <input type="checkbox"/> Angs | | <input type="checkbox"/> Depression <input type="checkbox"/> Depressive | | <input type="checkbox"/> Stress <input type="checkbox"/> uxinzelelo <input type="checkbox"/> Spanning |
| Is this your fist pregnancy/birth/ Uyaqalanaukhulelwa | <input type="checkbox"/> Yes <input type="checkbox"/> Ewe <input type="checkbox"/> Ja | | <input type="checkbox"/> No <input type="checkbox"/> Hayi <input type="checkbox"/> Nee | | |
| Who is your secondary caregiver/support system/ Unakekelwangubani wena/ Wie is u sekondêre versorger / ondersteuningstelsel | Your partner / umntu w akho/jo uvenoot | Your parents/ abazali/ jououers | Your Grandparents /igogo or umkhulu/ jougrootouers | Friends or extended family/ abangani or izihlobo/ vriende of uitgebreidefamilie | No one/ak ekho/ niemand |

SECTION B: PARENTING/Ukukhulisa/ ouerskap

1) Parenting in the social context / Ukukhulisa

| Parenting in a social context /Ukukhulisa | | | | | |
|---|--|---|---|---|---|
| Scale: 1= not at all true / Aiyonyani/Glad niewaarnie 2= not very true / ayiyonyaniepheleleyo/ niebaiewaarnie 3= sort of true / phantseyayinyani/ sort van waar 4= very true / inyani/ baiewaar | | | | | |
| Involvement/Warmth | | 1 | 2 | 3 | 4 |
| 1 | I let my child know I love him/her / Ndiyamazisaumtwanaukubandiyamthanda/ Ek laat my kind weet dat ek van hom / haar hou | | | | |
| 2 | I enjoy being with my child / Ndiyathandaukubanomtwanawam/ Ek geniet dit om by my kind te wees | | | | |
| 3 | I am always glad to see my child / Ndihlelindivuyeleukubonaumtwana/ Ek is altyd bly om my kind te sien | | | | |
| 4 | I think my child is special / Ndicingaukubaumtwanawam u special/ Ek dink my kind is spesiaal | | | | |
| 5 | I know a lot about what goes on for my child / Ndiyaziyonke into ngomtwanawam/ Ek weet baie oor wat met my kind aangaan | | | | |
| 6 | I really know how my child feels about things / Ndiyaziukubaumtwanawamuzivanjaningezinto/ Ek weet regtig hoe my kind oor dinge voel | | | | |
| 7 | I do special things with my child / ndimenzelahezintoleumtwanawam/ Ek doen spesiale dinge met my kind | | | | |
| 8 | I set aside time to talk to my child about what is important to him/her/ Ndibekaxeshalokthethanomtwanangezintoezibalulekilekuye/ Ek het tyd opsy gesit om met my kind te gesels oor wat vir hom / haar belangrik is | | | | |
| Rejection / Ukwaliwa | | 1 | 2 | 3 | 4 |
| 9 | I don't understand my child very well / Andimvisisikakuhleumtwanawam/ Ek verstaan my kind nie baie goed nie | | | | |
| 10 | Sometimes my child is hard to like / amanyeamaxesaandimuthandi/ Soms is my kind moeilik om van te hou | | | | |
| 11 | At times, the demands that my child has feels like a burden/ Amanyamaxesahezintoazifunayoziyandisinda/ Soms is die eise wat my kind het voel soos 'n las | | | | |
| 12 | My child needs more than I have time to give him/her. / Umtwanawamufunaezintondingenaixeshalokumenzela/ My kind het meer nodig as wat ek tyd het om hom / haar te gee. | | | | |
| 13 | Sometimes I feel like I can't be there for my child when he/she needs me / Amanyamaxesaandikhoxaumtwanaandidinga/ Soms voel ek of ek nie daar kan wees vir my kind as hy / sy my nodig het nie | | | | |
| Chaos | | 1 | 2 | 3 | 4 |
| 14 | When I make a promise, my child doesn't know if I will keep it / Xandienzaisithembiso, umtwanaakakholwiukubandizosienza/ As ek 'n belofte maak, weet my kind nie of ek dit sal hou nie | | | | |
| 15 | I let my child get away with things I really shouldn't allow/ | | | | |

| | | | | | |
|-----------|--|--|--|--|--|
| | Umtwanandiyamuyekaxa a enze into ye rongokungafanelakandimuyeke/ Ek laat my kind wegkom met dinge wat ek regtig nie mag toelaat nie | | | | |
| 16 | When my child gets in trouble, my reaction is not very predictable/ Xaumtwana a enze into ye rongo, ndingamuenzanomantoni/ As my kind in die moeilikheid is, is my reaksie nie baie voorspelbaar nie | | | | |
| 17 | I get mad at my child with no warning / Xiyabanomsindo no mtwana/ Ek word kwaad vir my kind sonder waarskuwing | | | | |
| 18 | I change the rules a lot at home / ndiyaitshintshaimithethoekhayakaninzi/ Ek verander die reëls baie by die huis | | | | |
| 19 | My child doesn't seem to know what I expect from him/her / Umtwanawamakaziubandifunantonikuye/ Dit lyk nie of my kind weet wat ek van hom / haar verwag nie | | | | |

(adapted from an earlier version of Parents as Social Context Questionnaire (PASCQ), Skinner, Regan & Wellborn, 1986)

SECTION C: NURTURING CARE/ Ukunakekela/ Koesteringsorg

1. Parent-Child Attachment /Ukuvanakomtwananomzali/ Ouer-kind-aanhegse

Using the scale below, choose the answer which best describes your relationship with your child./
Khethaempindulokulezizibalweaphaphanzi/ Gebruik die onderstaande skaal en kies die antwoord wat u verhouding met u kind die beste beskryf

Scale:

1= definitely does not apply/ Aiyenzeki/ is beslis nie van toepassing nie

2= not really/ aiyenzekikakhulu/ niereragnie

3= applies somewhat / Kacici/ ietwat van toepassing

4= definitely applies / yenzekakakhulu/ is beslis van toepassing

| | Statement | 1 | 2 | 3 | 4 |
|----------|---|----------|----------|----------|----------|
| 1 | I share an affectionate, warm relationship with my child./ Ndikhombisaluthandokumtwana/ Ek het 'n liefdevolle, warm verhouding met my kind | | | | |
| 2 | My child and I always seem to be struggling with each other. / Mna no mtwanasihlezisilwana/ Ek en my kind sukkel altyd met mekaar | | | | |
| 3 | If upset, my child will seek comfort from me./ Xaakwatileumtwana, uzakimi/ As hy ontsteld is, sal my kind troos by my soek | | | | |
| 4 | My child is uncomfortable with physical affection or touch from me./ Umtwanaakafuniukundibangangwndlelayokhombisauthando, uyandoika/ My kind is ongemaklik met liggaamlike liefde of aanraking deur my | | | | |
| 5 | When I praise my child, he/she beams with pride. / Xandimuhoyaumtwana, uyavuyakakulu/ As ek my kind prys, straal hy / sy van trots. | | | | |
| 6 | He/shereacts strongly to separation from me/ akafuniuhlukananamumtwana/ Hy / sy reageer sterk op die skeiding van my | | | | |
| 7 | My child spontaneously shares information about himself/herself./ Akasabiuthethanamnobangentonina/ My kind deel spontaan inligting oor hom- / haarself | | | | |

| | | | | | |
|----|---|--|--|--|--|
| 8 | My child is overly dependent on me./ Umtwanaufunayonke into kumnjengomzali/ My kind is té afhanklik van my | | | | |
| 9 | My child easily becomes angry at me. / Umtwanauyandikwatelakalula/ My kind word maklik kwaad vir my | | | | |
| 10 | My child asks for my help when he/she really does not need help./ Uyaxelausizonobaasaludingikakulu/ My kind vra my hulp wanneer hy / sy regtig nie hulp nodig het nie | | | | |
| 11 | It is easy to be in tune with what my child is feeling. / Kululaukubonaukuthiumtwanauzivakanjani/ Dit is maklik om in ooreenstemming te wees met wat my kind voel. | | | | |
| 12 | My child sees me as a source of punishment and criticism. / Umtwanaundibobanjengomtuamubethayonomthukhayo/ My kind sien my as 'n bron van straf en kritiek | | | | |
| 13 | My child expresses hurt or jealousy when I spend time with other children. / umtwanawamubaneskhwelaxaandibonanabannyaabantu/ My kind spreek seer of jaloesie uit as ek tyd saam met ander kinders spandeer | | | | |
| 14 | My child remains angry or is resistant after being disciplined./ Umtwanawamusahlala a kwatileukugcibakwamumbetha or umushautha/ My kind bly kwaad of is weerstandig nadat hy gedissiplineerd is. | | | | |
| 15 | When my child is misbehaving, he/she responds to my look or tone of voice. / Xaumtwanaaenza into ezirongo, uyayekaxandimjonga or xa ava ilizwi lam/ As my kind verkeerd optree, reageer hy / sy op my voorkoms of stemtoon | | | | |
| 16 | Dealing with my child drains my energy./ Umtwanaundigqibaamandla/ Om my kind te hanteer dreineer my energie | | | | |
| 17 | I've noticed my child copying my behaviour or ways of doing things. / Umtwanauthandaukuenzainzintongendlela mina ndizienzangakhona/ Ek het gesien dat my kind my gedrag of maniere om dinge te doen, kopieer | | | | |
| 18 | Despite my best efforts, I'm uncomfortable with how my child and I get along. / Andithandingendlela mina no mtwanawamsingavaningakhona/ tenspyte my beste pogings, voel ek ongemaklik met my en my kind | | | | |
| 19 | I often think about my child when at work. / Ndiyamukhumbulaumtwanaxandisemsebenzini/ Ek dink gereeld aan my kind as hy by die werk is | | | | |
| 20 | My child whines or cries when he/she wants something from me. / Umtwanawamuyakhalaxaafuna into kum/ My kind huil of huil as hy / sy iets van my wil hê | | | | |
| 21 | My interactions with my child make me feel effective and confident as a parent. / Ukuvanakwam no mtwanawamkuenzaukuthindizivendibalilekile/ My interaksie met my kind laat my as ouer effektief en selfversekerd voel. | | | | |

(adapted from CHILD PARENT RELATIONSHIP SCALE by Robert Pianta, 1992)

2. Responsivity

Using the scale below, tick which option you think is relevant/ **khethaimpedulokuleziesanzi/**

Gebruik die onderstaande skaal en merk watter opsie u dink relevant is

0 = Does not apply / Aiyenzeki/ Nie van toepassing nie

1 = applies to some degree /Iyenzekanje/ is tot 'n sekere mate van toepassing

2 = applies a good part of the time (little more than half)/ Iyenzeka/ is 'n goeie deel van die tyd van toepassing (net meer as die helfte

3 = applies very much, or most of the time / Iyenzekaokoko/ is baie van toepassing, of meestal

| | Responsivity | 0 | 1 | 2 | 3 |
|-----------|---|----------|----------|----------|----------|
| 1 | Do you speak to your child during the day?/ Uyathethanomtwanawakhoasesikolweni?/ Praat u bedags met u kind | | | | |
| 2 | Do you make eye contact when you speak to your child?/ Uyamujongaemahloeniumtanaxa u thethanae?/ Maak u oogkontak as u met u kind praat? | | | | |
| 3 | Do you encourage other family members to speak to your child?/ Uyabavumelaabahlobobakhouthethanomtwana?/ Moedig u ander familieleden aan om met u kind te praat? | | | | |
| 4 | Do you respond to your child when your child 'speaks' to you? (Eg. Coo's, babbles or any form of communication, or moves in the womb) / Uyaphendulaumtwanaxaathetha into ingavakaliyo?/ Reageer u op u kind as u kind met u praat ' (Bv. Coo's, babbels of enige vorm van kommunikasie, of beweeg in die baarmoeder) | | | | |
| 5 | Do you encourage other family members to acknowledge and praise your child when s/he does something new? / Uyabatshelanaizihlobozakouthizikhombiseukuvuyaxaumtwanaaenza into entsha?/ Moedig u ander gesinslede aan om u kind te erken en te prys wanneer hy / sy iets nuuts doen? | | | | |
| 6 | Do you acknowledge and praise your child when s/he does something new? / Wenauyakhombisaukuvuyaxaumtwanaaenza into entsha?/ Erken u en erken u u kind as hy / sy iets nuuts doen? | | | | |
| 7 | When your child wants to be held, do you respond to child by holding him/her? / Xaafunaukubambiwa, uyamuvhambanaumtwana?/ As u kind aangehou word, reageer u dan op die kind deur hom / haar vas te hou? | | | | |
| 8 | When your child is naughty, do you explain to them what they did is wrong / Xaahlalakakubiumtwana, uyamukhonza?/ As u kind stout is, verduidelik u dan vir hulle wat hulle verkeerd gedoen het | | | | |
| 9 | When your child does something good, do you reward their behaviour? (eg. When your child picks up their toy and packs it away, do you reward them with sweets?)/ Untwanaxaenza into enhle, uyamubongana?, xaathathe I toy yakheavhekekahleuyamunikezanaamaswits or umubongengeinyendlela?/ As u kind iets goed doen, beloon u dan hul gedrag? (Bv. as u kind hul speelgoed opstel en wegpak, beloon u hulle dan met lekkers? | | | | |
| 10 | When your child learns something new, do you encourage them (eg. Do you clap your hands to show they did a good job?)/ Xaumtwana a enze into intsha, uyamuvuyelana?, uyamushayelaizandlana?/ As u kind iets nuuts leer, moedig u hulle aan (bv. Klap u hande om te wys dat hulle 'n goeie werk gedoen het?) | | | | |
| 11 | Do you allow your child to solve their own problems when it is safe and developmentally appropriate? / Uyamuyekaumtwanaazikhupheinkengenizakhoxaku safe ukuthienzenjalo?/ Laat u u kind toe om hul eie probleme op te los wanneer dit veilig en ontwikkelend is? | | | | |
| 12 | Do you encourage your child's curiosity / Uyamusapotaumtwanakumaphuphowakhe?/ Moedig u die nuuskierigheid van u kind aan | | | | |

(adapted from the Child HOME inventory by Caldwell & Bradley, 1984)

**SECTION D: PARENTAL MENTAL HEALTH / Umuzalinokuhlekwencgondoyomtwana/ OUERLIKE
GEESTESGESONDHEID**

Please read each statement and circle a number, which indicates how much the statement applies. There are no right or wrong answers / **khethaimipendulo, aukhoumupendilo we rongo/** Lees elke stelling en omkring 'n nommer wat aandui hoeveel die stelling van toepassing is. Daar is geen regte of verkeerde antwoorde nie

0 = Does not apply / Aiyenzeki/ Nie van toepassing nie

1 = applies to some degree /lyenzekanje/ is tot 'n sekere mate van toepassing

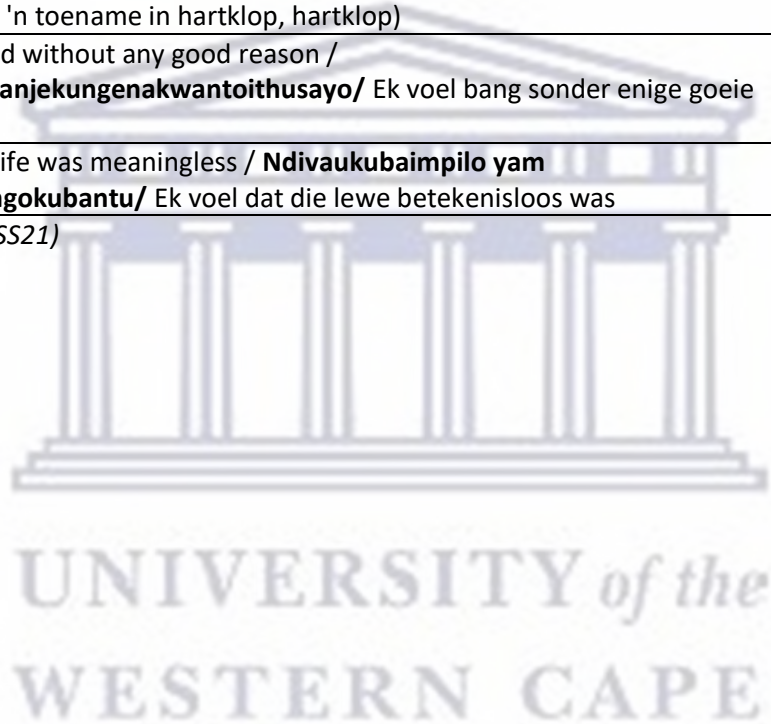
2 = applies a good part of the time (little more than half)/ lyenzeka/ is 'n goeie deel van die tyd van toepassing (net meer as die helfte)

3 = applies very much, or most of the time / lyenzekaokoko/ is baie van toepassing, of meestal

| Nr | Statement | 0 | 1 | 2 | 3 |
|----|---|---|---|---|---|
| 1 | I find it hard to wind down and relax / Andikwaziukuphumlandirilexe/ Ek vind dit moeilik om te ontspan | | | | |
| 2 | I am aware of dryness of my mouth/ Ndiyakuqonda ukomile komlomo wam/ Ek is bewus van droogte in my mond | | | | |
| 3 | I can't seem to experience any positive feeling at all / Ndihlalandingenanjabulo/ Dit lyk nie asof ek enigsins positiewe gevoelens ervaar nie | | | | |
| 4 | I experience breathing difficult (eg. Excessively rapid breathing, breathlessness in the absence of physical exertion). / Andikwaziukuphefumlakakuhle/ Ek ervaar moeilike asemhaling (bv. Oormatige vinnige asemhaling, asemhaling in die afwesigheid van fisieke inspanning | | | | |
| 5 | I find it difficult to work up the initiative to do things / Andinaamandlaakuenzaizinto/ Ek vind dit moeilik om die inisiatief uit te werk om dinge te doen | | | | |
| 6 | I over-react to situations / Ndiyabanomsindokakhulukungafanelaka/ Ek reageer te veel op situasies | | | | |
| 7 | I experienced trembling (eg. In the hands)/ Ndiyasheikaezandleni/ Ek het gebewe (bv. In die hande) | | | | |
| 8 | I feel that I am using a lot of nervous energy / Ndisibenzisaamandlawomzimbakakhulu/ Ek voel dat ek baie senuweeagtige energie gebruik | | | | |
| 9 | I am worried about situations in which I might panic and make a fool of myself/ Ndiyasabaukuthindi so lahlaincqondo yam elinyelanga/ Ek is bekommerd oor situasies waarin ek paniekbevange kan raak en myself kan spot | | | | |
| 10 | I feel that I have nothing to look forward to / Ndizivandingena into enhleezayoempilweni yam/ Ek voel dat ek niks het om na uit te sien nie | | | | |
| 11 | I find myself getting agitated / Ndibanomsindo/ Ek voel myself word geroer | | | | |
| 12 | I find it difficult to relax/ Ndikufumanisa kunzima ukuphumla/ Ek ving dit moeilik om te ontspan | | | | |
| 13 | I feel down-hearted and blue / Andinaamandlaokuphilandijabulile/ Ek voel hartseer en blou | | | | |
| 14 | I am intolerant of anything that keeps me from getting on with what I was doing / Andikwaziukunyemezela into enyexandienzaenye into/ Ek is | | | | |

| | | | | | |
|----|---|--|--|--|--|
| | onverdraagsaam teenoor enigiets wat my verhinder om aan te gaan met wat ek gedoen het | | | | |
| 15 | I feel close to panic / Ndizivandiduzenaukupenika/ Ek voel naby aan paniek | | | | |
| 16 | I am unable to become enthusiastic about anything / Andinawoamandlaokuphilandine hope/ Ek kan nie entoesiasties raak oor iets nie | | | | |
| 17 | I feel like I am not worth much as a person / Ndizivandingumuntunjeanganaumsebenziemhlabeni/ Ek voel asof ek nie veel werd is as persoon nie | | | | |
| 18 | I feel that I am rather touchy / Ndizivandisheshaukudinwanga bantu/ Ek voel dat ek taamlik aanraak | | | | |
| 19 | I am aware of the action of my heart in the absence of physical exertion (eg. Sense of heart rate increase, Heart missing a beat)/ Ndiyazivaxandidikwengomtu, nobandingamuenzikwanto/ Ek is bewus van die werking van my hart in die afwesigheid van fisieke inspanning (bv. 'N gevoel van 'n toename in hartklop, hartklop) | | | | |
| 20 | I feel scared without any good reason / Ndiyathukanjekungenakwantoithusayo/ Ek voel bang sonder enige goeie rede | | | | |
| 21 | I feel that life was meaningless / Ndivaukubaimpilo yam ayinaisidingokubantu/ Ek voel dat die lewe betekenisloos was | | | | |

(sourced from DASS21)



Appendix B: QUESTIONNAIRE: Pregnant parents

| Parental Perceptions of Nurturing Care and Parental Mental Health in the first 1000 days/ Indlelaabazaliabanakekelangayoabantwananendlelaabanakekelangayo isimosengqondokwintsu kuzokuqalaezili 1000 | | | | | |
|--|--|---|--|--|-------|
| Section A: Demographics | | | | | |
| Personal information / Nkcukachangawe/ persoonlikeinformatie | | | | | |
| Gender / Isini/Geslag | <input type="checkbox"/> Male/Indoda/Manlik | | <input type="checkbox"/> Female /Umfazi/ vroulik | | |
| Age/ Iminyaka/ ouderdom | Your age/ IminyakaYakho/ Jououderdom: | | Age of your child/ Iminyakayomntwana/ ouderdom van jou kind: | | |
| Race/ Ubuni/ Ras | Black | Coloured | White | Indian | Other |
| Home language/ UlwimiL wakho/ huistaal | English | Afrikaans | IsiXhosa | isiZulu | Other |
| Highest Education Level Completed/ Waph elaKubanieskolwe ni/ hoogsteonderwys vlakvoltooi | | | | | |
| Employment status / uyaphangelana/ werkstatus | <input type="checkbox"/> Employed <input type="checkbox"/> werksaam | | <input type="checkbox"/> Unemployed <input type="checkbox"/> engasebenzi <input type="checkbox"/> werkloos | | |
| Do you receive a grant/ Uyaifumanainkxas oyemalikhulume nte/ kryjy 'n toelaag | <input type="checkbox"/> Yes <input type="checkbox"/> Ewe <input type="checkbox"/> Ja | | <input type="checkbox"/> No <input type="checkbox"/> Hayi <input type="checkbox"/> nee | | |
| If yes, specify/ Ubauyaifu manacacisauthiye yiphi/ indienja, spesifiseer | <input type="checkbox"/> Child grant <input type="checkbox"/> Eyo/Abantw ana <input type="checkbox"/> Kinder Toelaag | <input type="checkbox"/> Pension <input type="checkbox"/> Ipenshoni <input type="checkbox"/> pensioen | <input type="checkbox"/> Disability <input type="checkbox"/> Eyokukhu bezeka | <input type="checkbox"/> Other <input type="checkbox"/> Nezinye <input type="checkbox"/> ander | |
| Household Structure | | | | | |
| Number of people in the household?/ Nihlalanibangaphie ndlini/ Getalmense in U huishoud | Children/ abantwana/Kinders _____ | | Adults/ abantuabadala/ Volwassenes _____ | | |

| | | | | | |
|---|--|--|--|---|---|
| Family structure/Uhlalano baniendlini/gesinsst ruktuur | Married/ Nditshatile/ Getroud | Single and not living together/ Anditshatanga/ enkelloope ndenblynies aamnie | Widowed / Ndishonel we/weduw ee | Divorced/ Ndidivosile /geskei | Living with extended family/ ndihlalanezihlobo/ woon meet uitgebreidefamilie |
| Head of the house / ngubaniintloko yom zi | <div> <input type="checkbox"/> Myself /Ndim/ ek <input type="checkbox"/> My spouse or partner/ Ngumlinganiwam/ my eggenoot <input type="checkbox"/> My mother/NguMama wam. My ma </div> <div> <input type="checkbox"/> My Grandmother/Grandfather/ UguMakhuluokanyeTakhuluwam/ my ouma of oupa <input type="checkbox"/> Member of extended family/Isihlobosam (malume/makazi/mzala)/ lid van uitgebreidefamilie <input type="checkbox"/> My father/ Ngu Tata wam/ my pa </div> | | | | |
| Parenting Care and Support | | | | | |
| Do you take any medication/ Uyawathathanaamay eza/ neem u medikasie | <input type="checkbox"/> Yes/ <input type="checkbox"/> Ewe <input type="checkbox"/> ja | | <input type="checkbox"/> No <input type="checkbox"/> Hayi <input type="checkbox"/> nee | | |
| What type of medications do you take/ kubauyawathatha, uthathaenjani/ watsoormedikasie vat U | <input type="checkbox"/> Anxiety <input type="checkbox"/> Ixhala <input type="checkbox"/> Angs | | <input type="checkbox"/> Depression <input type="checkbox"/> Depressive | | <input type="checkbox"/> Stress <input type="checkbox"/> uxinzelelo <input type="checkbox"/> Spanning |
| Is this your fist pregnancy/birth/ Uyaqalanaukhulelwa | <input type="checkbox"/> Yes <input type="checkbox"/> Ewe <input type="checkbox"/> Ja | | <input type="checkbox"/> No <input type="checkbox"/> Hayi <input type="checkbox"/> Nee | | |
| Who is your secondary caregiver/support system/ Unakekelwangubani wena/ Wie is u sekondêre versorger / ondersteuningstelsel | Your partner / umntu w akho/jo uvenoot | Your parents/ abazali/ jououers | Your Grandparents /igogo or umkhulu/ jougrootouers | Friends or extended family/ abangani or izihlobo/ vriende of uitgebreidefamilie | No one/ak ekho/ niemand |

Parent-foetus attachment

| Prenatal Attachment Inventory | | | | | |
|-------------------------------|--|--------------|-----------|-------|---------------|
| | | Almost never | Sometimes | Often | Almost always |
| 1 | I wonder what the baby looks like/ ndizibuza ukuba umntana unjani/ Ek wonder hoe lyk die baba | | | | |
| 2 | I imagine calling the baby by name / Ndinombono sendibiza umntana ngegama. Ek stel my voor dat ek die baba by die naam noem | | | | |
| 3 | I enjoy feeling the baby move/ Ndiyakonwabela ukuva umntana eshukuma. | | | | |
| 4 | I think that my baby already has a personality / ndicinga okokuba umntana wam sele ungumntu othile. Ek dink dat my baba reeds 'n persoonlikheid het | | | | |
| 5 | I let other people put their hands on my tummy/ my partners tummy to feel the baby move / Ndiyabavumela abantu babeke izandla zabo esiswini sam okanye esiswini seqabane lam ukuze beve ukushukum komntana. Ek laat ander mense hul hande op my/my wederhelfte se maag sit om die baba te voel beweeg | | | | |
| 6 | I know things I will do make a difference to the baby/ Ndiyazazi izinto endizozenza ukwenza umahluko emntaneni. Ek weet die dinge was e doen maak 'n verskil vir my baba | | | | |
| 7 | I plan the things I will do with my baby / Ndiyazilungiselela izinto endizakuzenza nomntana wam. Ek beplan dinge ek saam my baba gaan doen | | | | |
| 8 | I tell others what the baby does inside my/ my partners tummy / Ndiyabaxelela abanye ngezinto ezenziwa ngumntana esiswini sam okanye esiswini seqabane lam. Ek vertel anders wad die baba in my/my wederhelfte se maag doen | | | | |
| 9 | I imagine what part of the baby I'm touching / Ndiyazingela ukuba ngeyiphi indawo yomntana endiyibambayo. Ek verbeeld watter deel van die baba ek raak | | | | |
| 10 | I know when the baby is asleep / Ndiyamazi umntana xa elele / ek weet wanneer die baba slaap | | | | |
| 11 | I can make my baby move / Ndingamenza umntana wama ukuba ashukume. / ek kan die baba laat beweeg | | | | |
| 12 | I buy/make things for the baby / Umntana ndiyamenzele okanye ndimthengele izinto. / ek koop/maak dinge vir die baba | | | | |

| | | | | | |
|--------|--|--|--|--|--|
| 1 3 | I feel love for the baby / Ndinothando lomntana. / ek voel life vir die baba | | | | |
| 1 4 | I try to imagine what the baby is doing in there / Ndiyazama ucinga uba wenza ntoni umntana ngaphakathi. / ek verbeel wat die baba daar binne doen | | | | |
| 1 5 | I like to sit with my arms around my/ my partners tummy / Ndiyathanda ubeka izandla zam okanye ezeqabane lam esiswini. / ek sit met my hande om my/my wederhelfte se maag | | | | |
| 1 6 | I dream about the baby / Ndiyaphupha ngomntana. / ek droom oor die baba | | | | |
| 1 7 | I know why the baby is moving / Ndiyayazi kutheni umntana eshukuma. / ek weet wanneer die baba beweeg | | | | |
| 1 8 | I stroke the baby through my tummy/ my partners tummy / Ndimphatha ngothando esesiswini umntana. Ek streek die baba deur my/ my wederhelfte se maag | | | | |
| 1 9 | I share secrets with the baby / Ndimxelela iimfihlo umntana/ ek deel geheime met die baba | | | | |
| 2 0 | I know the baby hears me / Ndiyayazi ukuba uyandiva umntana./ ek weet die baba hoor my | | | | |
| 2 1 | I get very excited when I think about the baby / Ndionwaba xa ndicinga ngomntana./ ek raak opgewonde waneer eka an die baba dink | | | | |

PARENTAL MENTAL HEALTH / Umuzalinokuhlekwencqondoyomtwana/ OUERLIKE GEESTESGESONDHEID

Please read each statement and circle a number, which indicates how much the statement applies. There are no right or wrong answers / **khethaimipendulo, aukhoumupendilo we rongo/** Lees elke stelling en omkring 'n nommer wat aandui hoeveel die stelling van toepassing is. Daar is geen regte of verkeerde antwoorde nie

0 = Does not apply / Aiyenzeki/ Nie van toepassing nie

1 = applies to some degree /Iyenzekanje/ is tot 'n sekere mate van toepassing

2 = applies a good part of the time (little more than half)/ Iyenzeka/ is 'n goeie deel van die tyd van toepassing (net meer as die helfte)

3 = applies very much, or most of the time / Iyenzekaokoko/ is baie van toepassing, of meestal

| Nr | Statement | 0 | 1 | 2 | 3 |
|----|---|---|---|---|---|
| 1 | I find it hard to wind down and relax / Andikwaziukuphumlandirilexe/ Ek vind dit moeilik om te ontspan | | | | |

| | | | | | |
|----|--|--|--|--|--|
| 2 | I am aware of dryness of my mouth/ Ndiyakuqonda ukomile komlomo wam/ Ek is bewus van droogte in my mond | | | | |
| 3 | I can't seem to experience any positive feeling at all / Ndihlalingenjanjabulo/ Dit lyk nie asof ek enigsins positiewe gevoelens ervaar nie | | | | |
| 4 | I experience breathing difficult (eg. Excessively rapid breathing, breathlessness in the absence of physical exertion). / Andikwaziukuphefumlakakuhle/ Ek ervaar moeilike asemhaling (bv. Oormatige vinnige asemhaling, asemhaling in die afwesigheid van fisieke inspanning | | | | |
| 5 | I find it difficult to work up the initiative to do things / Andinaamandlaakuenzaizinto/ Ek vind dit moeilik om die inisiatief uit te werk om dinge te doen | | | | |
| 6 | I over-react to situations / Ndiyabanomsindokakhulukungafanelaka/ Ek reageer te veel op situasies | | | | |
| 7 | I experienced trembling (eg. In the hands)/ Ndiyasheikaezandleni/ Ek het gebewe (bv. In die hande) | | | | |
| 8 | I feel that I am using a lot of nervous energy / Ndisebenzisaamandlawomzimbakakhulu/ Ek voel dat ek baie senuweeagtige energie gebruik | | | | |
| 9 | I am worried about situations in which I might panic and make a fool of myself/ Ndiyasabaukuthindi so lahlaincqondo yam elinyelanga/ Ek is bekommerd oor situasies waarin ek paniekbevange kan raak en myself kan spot | | | | |
| 10 | I feel that I have nothing to look forward to / Ndizivandingena into enhleezayoempilweni yam/ Ek voel dat ek niks het om na uit te sien nie | | | | |
| 11 | I find myself getting agitated / Ndibanomsindo/ Ek voel myself word geroer | | | | |
| 12 | I find it difficult to relax/ Ndikufumanisa kunzima ukuphumla/ Ek ving dit moeilik om te ontspan | | | | |
| 13 | I feel down-hearted and blue / Andinaamandlaokuphilandijabulile/ Ek voel hartseer en blou | | | | |
| 14 | I am intolerant of anything that keeps me from getting on with what I was doing / Andikwaziukunyemezela into enyexandienzaenye into/ Ek is onverdraagsaam teenoor enigiets wat my verhinder om aan te gaan met wat ek gedoen het | | | | |
| 15 | I feel close to panic / Ndizivandiduzenaukopenika/ Ek voel naby aan paniek | | | | |
| 16 | I am unable to become enthusiastic about anything / Andinawoamandlaokuphilandine hope/ Ek kan nie entoesiasies raak oor iets nie | | | | |
| 17 | I feel like I am not worth much as a person / Ndizivandingumuntunjeanganaumsebenziemhlabeni/ Ek voel asof ek nie veel werd is as persoon nie | | | | |
| 18 | I feel that I am rather touchy / Ndizivandisheshaukudinwanga bantu/ Ek voel dat ek taamlik aanraak | | | | |
| 19 | I am aware of the action of my heart in the absence of physical exertion (eg. Sense of heart rate increase, Heart missing a beat)/ Ndiyazivaxandidikwengomtu, nobandingamuenzikwanto/ Ek is bewus van die werking van my hart in die afwesigheid van fisieke inspanning (bv. 'N gevoel van 'n toename in hartklop, hartklop) | | | | |

| | | | | | |
|----|---|--|--|--|--|
| 20 | I feel scared without any good reason / Ndiyathukanjekungenakwantoithusayo/ Ek voel bang sonder enige goeie rede | | | | |
| 21 | I feel that life was meaningless / Ndivaukubaimpilo yam ayinaisidingokubantu/ Ek voel dat die lewe betekenisloos was | | | | |

(sourced from DASS21)



UNIVERSITY *of the*
WESTERN CAPE

APPENDIX C: INFORMATION SHEET

Faculty of Community and Health Sciences

Department of Social Work

Child and Family Studies Unit

Private Bag X17, Bellville,

Cape Town, 7535.

Project Title: An examination of the association between parental mental health and parental perceptions of nurturing care in the first 1000

What is this study about?

This is a research project being conducted by Lisa Petersen at the University of the Western Cape. We are inviting you to participate in this research project because you are a parent who is either pregnant or has a child between the ages of 0 and 2 years. The purpose of this research project is to examine the association between parental mental health and parental perceptions of nurturing care in the 1000 days.

What will I be asked to do if I agree to participate?

You will be asked to participate in filling out a questionnaire about parental mental health and nurturing care in the first 1000 days. The questionnaire will be distributed to participants once consent has been given. The questionnaire will take approximately 20-30 minutes to complete and will be conducted in the hospital while you are waiting in line to be assisted. Should more information be required, I will consult with you and arrange a suitable time and date that will be convenient for you.

Would my participation in this study be kept confidential?

The researchers undertake to protect your identity and the nature of your contribution. To ensure your anonymity, the questionnaires will not contain information that may personally



identify you. If we write a report or article about this research project, your identity will be protected.

What are the risks of this research?

There may be some risks from participating in this research study. All human interactions and talking about self or others carry some amount of risks. We will nevertheless minimise such risks and act promptly to assist you if you experience any discomfort, psychological or otherwise during the process of your participation in this study. Where necessary, an appropriate referral will be made to a suitable professional for further assistance or intervention.

What are the benefits of this research?

This research is not designed to help you personally, but the results may help the investigator learn more about the association between parent mental health and parental perceptions of nurturing care in the first 1000 days. We hope that, in the future, other people might benefit from this study through improved understanding of the association between parental mental health and parental perceptions of nurturing care in the first 1000 days.

Describe the anticipated benefits to science or society expected from the research, if any.

There are limited studies done on the relationship between parental mental and parental perceptions of nurturing care in the first 1000 days. The data collected may provide valuable information about those two aspects and will help parents (either pregnant or parents of a children aged between 0-2years) understand the importance of nurturing care in the first 1000 days and how important their mental health is.

Do I have to be in this research and may I stop participating at any time?

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

What if I have questions?

This research is being conducted by Lisa Petersen in the Child and Family Studies Unit at the University of the Western Cape. If you have any questions about the research study itself, please contact Lisa Petersen at: 021 959 3674 or 3177256@myuwc.ac.za.



Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

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Private Bag X17

Bellville 7535

Email: nroman@uwc.ac.za

Prof Anthea Rhoda

Dean: Faculty of Community and Health Sciences

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Appendix D: INLIGTINGSBLAD

Titel van Navorsingstudie: 'n Onderzoek na die verband tussen ouerlike geestesgesondheid en ouer persepsies van koestering sorg in die eerste 1000 dae

Waaroor gaan hierdie studie?

Hierdie is 'n navorsingsprojek wat deur Lisa Petersen aan die Universiteit van Wes-

Kaap gedoen word. Ons nooi u uit om deel te neem aan hierdie navorsingsprojek omdat u swanger is of 'n kind tussen 0 en 2jaar het. Die doel van hierdie navorsingsprojek is om die verband tussen ouerlike geestesgesondheid en ouer persepsies van koestering sorg in die eerste 1000 dae te ondersoek.

Wat sal van my verwag word indien ek deelneem?

U sal gevra word om 'n vraelys in te vul oor ouerlike geestesgesondheid en ouer persepsies van koestering sorg in die eerste 1000 dae te ondersoek. Sodra toestemming gegee is, sal die vraelys aan die deelnemers versprei word. Dit sal ongeveer 20-30 minute neem om die vraelys af te handel en sal in die hospitaal uitgevoer word terwyl u in die ry wag om hulp te kry. As meer inligting verlang word, sal ek u raadpleeg en 'n geskikte tyd en datum reël wat u geskik sal wees.

Sal deelname van hierdie projek vertroulik gehou word?

Die navorser onderneem om u identiteit en die aard van u bydrae te beskerm. Om u anonimiteit te verseker, sal u naam vervang word met 'n skuilnaam op die versamelde data. Deur die gebruik van hierdie skuilnaam kan die navorser jou onderhoud aan jou identiteit koppel, en slegs die navorser sal toegang tot die identifikasie sleutel hê.

Om u vertrouwe te verseker, sal die aangetekende klanklêers gestoor word in 'n veilige ruimte waar slegs die navorser en toesighouer toegang sal hê. Daarbenewens sal transkribeerde transkripsies beskerm word in 'n wagwoordbeskermde rekenaarlêers. As ons 'n verslag of artikel oor hierdie navorsingsprojek skryf, sal u identiteit beskerm word.

Wat is die risiko's van hierdie navorsing?



Alle menslike interaksies en praat oor u self of ander dra 'n paar risiko's. Daarom dra alle navorsing 'n mate van risiko. Ons sal egter sulke risiko's verminder en dadelik optree om u te help as u enige ongemak, sielkundige of andersins ervaar tydens die proses van u deelname aan hierdie studie. Waar nodig, sal 'n gepaste verwysing na 'n geskikte professioneel vir verdere bystand gedoen word.

Wat is die voordele van hierdie navorsing?

Hierdie navorsing is nie bedoel om u persoonlik te help nie, maar die resultate kan die ondersoeker help om meer te wete te kom oor die verband tussen geestesgesondheid van ouers en ouers se persepsies van versorging in die eerste 1000 dae. Ons hoop dat ander mense in die toekoms ook voordeel kan trek uit hierdie studie deur 'n beter begrip van die verband tussen ouerlike geestesgesondheid en ouerpersepsies van die versorging van sorg in die eerste 1000 dae.

Beskryf die verwagte voordele die navorsing sal he aan wetenskap of Society, indien enige

Daar is beperkte studies gedoen oor ouerlike geestesgesondheid en ouer persepsies van koestering sorg in die eerste 1000 dae. Die data wat versamel word, sal inligting verskaf vir ouers (swanger ouers of ouers van kinders tussen 0-2 jaar), en sal hul 'n beter begrip van die verband tussen ouerlike geestesgesondheid en ouerpersepsies van die versorging in die eerste 1000 dae.

Is ek verplig om aan hierdie navorsing deel te neem en mag ek enige tyd met die deelname onttrek?

U deelname aan hierdie navorsing is heeltemal vrywillig. U mag kies om glad nie deel te neem nie. As u besluit om aan hierdie navorsing deel te neem, kan u enige tyd ophou. As u besluit om nie aan hierdie studie deel te neem nie, of as u op enige stadium ophou deelneem, sal u nie enige voordele wat u andersins kwalifiseer, gepenaliseer of verloor nie.

Wat as ek vrae het?

Hierdie ondersoek word deur Lisa Petersen aan die Universiteit van Wes-Kaap gedoen. As u vrae het oor die navorsingstudie self, kontak asseblief Lisa Petersen by 021 959 3674 of 3177256@myuwc.ac.za

Indien u enige vrae rakende hierdie studie en u regte as 'n navorsingsdeelnemer het of as u enige probleme rakende die studie aangemeld het, kontak asseblief:



Prof N.V. Roman

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Telephone: (021)959- 2277/2970

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Prof Anthea Rhoda

Dean: Faculty of Community and Health Sciences

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Appendix E: ULWAZI MALUNGA NOPHANDO

ISIHLOKO SOPHANDO: Kukupavanya umanyano phakathi kwesimo senqondo

sabazali kunye nembono zabazali ngokukhulisa ngentsuku zokuqala eziyi 1000.

Lungantoni oluphando?

Oluphando lwenziwa ngu Lisa Petersen ongumfundi kwi Dyunivesithi yase Ntshona-

Koloni. Siyakumema ukuba uthathe inxaxheba kolu phando ngoba ungumzali okhulelweyo okanye unomntwana oneminyaka ephakathi kweminyaka emi-0 neli-2 ubudala. Injongo yoluphando kukupavanya umanyano phakathi kwesimo senqondo sabazali kunye nembono zabazali ngokukhulisa ngentsuku zokuqala eziyi 1000.

Kulindleke ntoni xakunokuthi ndivume uthatha inxaxheba koluphando?

Uzakucelwa ukuba ugqwalise imibuzo malunga nempilo yengqondo kunye nokukhathala kwintsuku zokuqala eziyi1000. Imibuzo izokudluliswa kubantu abathatha inxaxheba xa bethe banikwa iphepha-mvume lokuba bayavuma uthatha inxaxheba. Le mibuzo izokuthatha imizuzu eyi20 ukuya ku 30 ukuyiphendula xa kuqikelelwa, beyigqwalisela esibhedlele ngethuba belinde ukuncedwa. Xa kuthe kwadingeka ezinye inkcukacha, ndizokuthi ndidibane nawe sihlele ixesha kwaye nosuku olulungele wena.

Ingaba ukhuseleko lwam luqinisekisiwe kweisisifundo?

Umphandi uzozama ukukhusela ubuni kunye nobume begalelo lakho. Ukuqinisekisa ukuba igalelo lakho likhuselekile awuzukwaziwa ngomnye umntu, imibuzo ayizukufaka inkcukacha ezinothi zasisa ubuni bakho. Ukuba sithe sabhala iripoti okanye iathikile malunga nolu phando, ubuni bakho buzokhuseleka.

Zeziphi iingozi zoluphando?

Kungakhona ubungozi kukuthatha inxaxheba kolu phando. Zonke ingxoxo zabantu okuthetha ngawe okanye abanye abantu kuqulathe ubungozi obuthile. Kodwa sizakuthi sizame ukunciphisa ezongozi kwaye sincedisane nawe ukuba uthe wahlangabezana nezonto zokungakhululeki ngokwasengqondweni xa uthatha inxaxheba kolu phando. Apho kukhona khona isidingo, uzokuthunyekwa emntwini olungele ukukunceda.

Zeziphi iinzuzo zoluphando?

Oluphando alwenzelwanga ukunceda wena , kodwa iziphumo zizakunceda umntu ophandayo ufunde kabanzi ngomanyano phakathi kwempilo yengqondo yabazali kunye nemboni zabo



malunga nokukhathala kwintsuku eziyi 1000 zokuqala. Siyathemba ukuba, ekuhambeni kwoxesha nabanye abantu bangancedakala kolu phando ngokuthi kuphuculwe ulwazi kumanyano phakathi kwempilo yengqondi yabazali kunye nembono zabo malunga nokukhathala kwintsuku eziyi 1000 zokuqala zomntwana.

Chaza inzunzo ezilindelekileyi kwiScience okanye ekuhlaleni ezizophuma kolu phando, ukuba zikhona.

Lumbalwa uphando osele lwenziwe mayelana nobudlelwane phakathi kwempilo yengqondo kunye nembono zokukhathala kwabazali kwintsuku eziyi1000 zokuqala. Idatha eqokelelweyo inokubonelela ngolwazi oluxabisekileyo malunga nezi zinto zimbini kwaye iya kunceda abazali (nokuba bakhulelwe okanye abazali babantwana abaneminyaka ephakathi kwe-0-2years) baqonde ukubaluleka kokukhulisa ukhathalelo kwiintsuku ezili-1000 zokuqala nokubaluleka kwempilo yengqondo.

Ngaba kufuneka ndibe kuloluphando kwaye ndivumelekile ukuyeka ukuthatha

inxaxheba nanini na?

Ukuthatha inxaxheba kwakho koluphando kungokuzithandela, ungakhetha ungathathi nxaxheba. Ukuba uzithandele ukuthatha inxaxheba ungayeka xa uzisola sele uvumile ukuba yinxalenye yoluphando nanini na, Ukunobangaba ukhetha ukungabiyinxalenye yesisifundo okanye uyeke sele ugaphakathi akuzobakho ziphumo zimbi, awuzokohlwaywa.

Ukuba ndinemibuzo?

Oluphando lwenziwa nguLisa Petersen osuka kwaChild and Family studies Unit kwiDyunivesithi yasentsona koloni. Ukuba unemibuzo malunga noluphando ungatsalela uLisa Petersen kulenombolo 021 959 3674 okanye 3177256@myuwc.ac.za.

Ukuba uth wabanemibuzo malunga nolu phando kunye namalungelo akho njengomntu othatha inxaxheba koluphando, okanye unqwenele ukurepotha ingxaki othe wahlangabezana nazo kolu phando nceda ungatsalela u:

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Cape Town, 7535

APPENDIX F: CONSENT FORM

CONSENT FORM

Title of Research Project:

An examination of the association between parental mental health and parental perceptions of nurturing care in the first 1000 days.

The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my participation will involve and I agree to participate of my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.

___ I agree to participate in this study.

___ I do not agree to participate in this study.

Participant's name.....

Participant's signature.....

Date.....

Should you have any questions regarding this study or wish to report any problems you have experienced related to the study, please contact:

Lisa Petersen

Masters student

Child and Family studies

Department of Social work

Email: 3177256@myuwc.ac.za

Professor N Roman

Supervisor

Child and Family studies

Department of Social Work

Email: nroman@uwc.ac.za

APPENDIX G: CONSENT FORM VRYWARINGS VORM

Title of Research Project: 'n Ondersoek na die verband tussen ouerlike geestesgesondheid en ouer persepsies van koestering sorg in die eerste 1000 dae

Die studie is aan my beskryf in taal wat ek verstaan. My vrae oor die studie is beantwoord. Ek verstaan wat my deelname sal behels en ek stem in om deel te neem van my eie keuse en vrye wil. Ek verstaan dat my identiteit nie aan enigiemand bekend gemaak sal word nie. Ek verstaan dat wanneer ek toestemming gee om die onderhoud klankopname te doen, sal dit op & 'n veilige plek gestoor word, met slegs die navorser en toesighouer wat toegang tot die klanklêer het. Ek verstaan dat ek enige tyd van die studie kan onttrek sonder om & 'n rede en sonder vrees vir negatiewe gevolge of verlies aan voordele te gee.

___ Ek stem hiermee saam om aan hierdie studie deel te neem.

___ Ek stem nie saam om aan hierdie studie deel te neem nie

Deelnemer se naam.....

Deelnemer se handtekening.....

Datum.....

As u enige vrae het rakende hierdie studie of probleme wil rapporteur wat u met die studie ondervind, kontak:

Lisa Petersen

Masters student

Kinder en gesinsstudies

Departement van Maatskaplike Werk

Email: 3177256@myuwc.ac.za

Professor N Roman

Toesighouer

Kinder en gesinsstudies

Departement van Maatskaplike Werk

E-pos: nroman@uwc.ac.za

APPENDIX H: IPHEPHA-MVUME

ISIHLOKO SOPHANDO: Kukupavanya umanyano phakathi kwesimo senqondo sabazali kunye nembono zabazali ngokukhulisa ngentsuku zokuqala eziyi 1000

Oluphando ndilucaciselwe ngolwimi endiluvayo nendiluqondayo. Imibuzo endithendanayo ngesisifundo iphenduliwe. Ndinolwazi malunga nokuzibandakanya kwam kwesisifundo, ndiyavuma ukuzibandakanya kwesisifundo ngentando yam nangokuzikhethela. Ndiyaqonda ukuba ubuni bam ukuzokwaziwamntu. Ndiyazi ukuba ndicinga ngongabiyinxalenye yesisifundo ndinelungelo lokwenza oko. Ndingashenxa kwesisifundo ndingakhange ndizicacise, ngaphandle koloyiko lweziphumo ezimbi. Ndiyavuma ukuba oludliwano-ndlebe lushicilelwe.

___ Ndiyavuma ukuthatha inxaxheba kolu phando

___ Andivumi ukuthatha inxaxheba kolu phando.

Igama lomntu othatha inxaxheba.....

Isayini yomntu othatha inxaxheba

Umhla.....

Ukuba unemibuzo malunga nolu phononongo okanye unqwenela ukwenza ingxelo ngazo naziphi na iingxaki onazo onazo ezinxulumene nesifundo, nceda unxibelelane:

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03 April 2020

Ms L Petersen
Child and Family Studies
Faculty of Community and Health Sciences

Ethics Reference Number: BM20/2/6

Project Title: An examination of the association of parental mental health and parental perceptions of nurturing care in the first 1000 days.

Approval Period: 02 April 2020 – 02 April 2023

I hereby certify that the Biomedical Science Research Ethics Committee of the University of the Western Cape approved the scientific methodology and ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

Please remember to submit a progress report annually by 30 November for the duration of the project.

Permission to conduct the study must be submitted to BMREC for record-keeping.

The Committee must be informed of any serious adverse event and/or termination of the study.

Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape

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NHREC Registration Number: BMREC-130416-050

FROM HOPE TO ACTION THROUGH KNOWLEDGE.