# Training on attachment as part of antenatal programmes:
# the perceptions of antenatal programme presenters

by

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# DECLARATION OF ORIGINALITY

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**Declaration:**

I understand what plagiarism is and am aware of the policy of the University of Pretoria in this regard.

I declare that this mini-dissertation is my own original work. Where other people's work has been used, either from a printed source, internet or any other source, this has been properly acknowledged and referenced in accordance with departmental requirements.

ZOE Lubbe

# ABSTRACT

**TRAINING ON ATTACHMENT AS PART OF ANTENATAL PROGRAMMES: THE PERCEPTIONS OF ANTENATAL PROGRAMME PRESENTERS**

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Attachment refers to a strong emotional bond with special people in a person's life, in whose presence the person experiences pleasure, joy and comfort in times of stress. The first attachment in life is commonly formed between an infant and primary caregiver, which is usually the mother. The caregiving provided by the mother or caregiver will determine whether a secure or insecure attachment pattern is formed. Attachment theory indicates that this first attachment forms the basis for a cognitive representation, the so-called internal working model, which becomes part of the person's personality and forms the foundation of the person's perception of the self and the world as well as of all future interpersonal relationships.

As infancy is a sensitive period for the development of attachment, the prenatal period could be an appropriate time to educate expecting mothers about the importance of secure attachment and their role in the development thereof. The researcher therefore wished to explore whether antenatal programmes could be used as a platform for teaching expecting mothers about attachment. As a starting point, the goal of this study was to explore the perceptions of antenatal programme presenters on including training on attachment into antenatal programmes.

The study was based on a qualitative research approach, and applied research as the type of research. A collective case study research design was adopted and data was collected by means of semi-structured interviews that were conducted with a sample of ten presenters of antenatal programmes in the Tshwane district. The participants were selected by means of purposive sampling. Data was analysed

according to methods for qualitative data analysis, and relevant ethical considerations were followed during the study.

The research findings indicate that the participants were aware of the importance and benefits of secure attachment and that they had a positive attitude towards the inclusion of training on attachment into antenatal programmes. They were eager to receive training on attachment and to adapt their programmes to include training on attachment.

The researcher concludes that it would be feasible and beneficial to include training on attachment into antenatal programmes, and to train antenatal programme presenters for this purpose. The provision of training on attachment to nurses and raising awareness of attachment in the private and public health care sectors could facilitate greater knowledge of attachment for expecting mothers. Further research in diverse settings, such as in private and public clinics and hospitals in different geographical areas, is recommended.

**Keywords:**

Mother-infant attachment

Attachment behaviour

Sensitive care

Antenatal programmes

Antenatal programme presenter

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# CHAPTER 1

# GENERAL INTRODUCTION TO THE RESEARCH STUDY

## 1.1    INTRODUCTION AND CONTEXTUALISATION

Theories on human development indicate the importance of the environment in which a child grows up, and the interaction that the child has with the environment is regarded as a key component of child development (Yates, 2007:320-328, 335-340). Infants are not born to be self-sufficient, and therefore they depend on their primary caregivers for their basic needs, such as their need for care, security and protection. As a result of the infant-caregiver relationship, attachment is formed (Goldberg, 2014:9; Louie & Cromer, 2014:496).

Goldberg (2014:9) defines attachment as a component of social relationships where a vulnerable individual relies on a more powerful individual for protection and security. Each individual in this social relationship forms an emotional bond to the other, and also forms an internal perception of this relationship, of the self and the other individual in this relationship (Goldberg, 2014:9).

The child's first attachment is with his/her primary caregiver, which is usually the mother (Goldberg, 2014:8; Holmes, 2009:25; Werner, Zahn, Titza, Walitza & Logoz, 2013:576). According to attachment theory, children use their earliest attachment relationships to form a template that will determine their thinking about interpersonal relationships. This template is referred to as the internal working model (Snyder, Shapiro & Treleaven, 2012:710). The internal working model becomes part of the child's personality and forms the basis for the child's expectations about all future relationships (Berk, 2013:430). The child's primary attachment thus forms the foundation for future interactions with others as well as for the way the child perceives the self and the world (Goldberg, 2014:8; Li & Zheng, 2014:1258; Siegel, 2003:7). Therefore, the attachment formed between an infant and his/her caregiver has the potential to influence the child's future development (Steele, Waters, Bost, Vaughn, Truitt, Waters, Booth-LaForce & Riosman, 2014:2526).

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Attachment develops in four phases during infancy, thus the first two years of life: the pre-attachment phase, the attachment-in-the-making phase, the clear-cut attachment phase, and the formation of reciprocal relationship phase (Goldberg, 2014:16-18; Louw & Louw, 2014:133-134). During these phases the infant gradually develops attachment to a primary caregiver, which is usually the mother. The first two years of life is thus a significant period for the development of attachment. John Bowlby, the founder of attachment theory, regarded infancy as a sensitive period for the optimal development of attachment (Berk, 2013:24, 429). The sensitivity and consistency of care during this period plays a significant role in the formation of attachment security (Berk, 2013:433).

Four types of attachment develop based on the sensitivity and consistency of care provided by the primary caregiver (Bosmans, Van de Walle, Goossens & Ceulemans, 2014:225; Louie & Cromer, 2014:496). The types of attachment include a secure attachment style and three insecure attachment styles, namely avoidant attachment, ambivalent attachment, and disorganised attachment. The type of attachment will determine the nature of a person's internal working model (Goldberg, 2014:8; Li & Zheng, 2014:1258; Siegel, 2003:7). Secure attachment is likely to result in an internal working model according to which children will see their caregiver as responsive and reliable, and the self as worthy of love and affection. On the other hand, insecure attachment may lead to an internal working model that portrays the caregiver as unresponsive and the self as unworthy and not deserving of love and affection (Anderson & Gedo, 2013:251). The internal working model becomes part of the child's personality and provides a set of expectations about the availability of attachment figures and of support provided by them (Berk, 2013:430). Thus, attachment becomes a construct that endures across the life span (Smith, Cowie & Blades, 2011:118).

Longitudinal studies found that securely attached children tend to have higher self-esteem, better social skills, more positive peer relationships, and better academic outcomes. To the contrary, it was found that children with insecure attachment styles showed more internalising and externalising problems such as fear, anxiety, anger, and aggression (Berk, 2013:439-440). Attachment patterns tend to persist over the

longer term, yet a child's attachment status could change depending on his/her relational experiences later in life (Berk, 2013:432).

Given the sensitive period for the formation of attachment and the critical role of the mother in the development of attachment, it can be argued that interventions to enhance secure attachment should be timely and aimed at the primary caregiver, which is usually the mother. As the first two years of a child's life are indicated as the sensitive period for the development of attachment, it would be appropriate to focus interventions on the time before birth, thus the pre- or antenatal period. Antenatal programmes are an example of early interventions to prepare expecting mothers for the birth process and for the physical and nutritional care of the new-born baby (Svensson, Barkley & Cooke, 2007:9-10).

Antenatal programmes are predominantly developed by nurses, and focus mostly on educating prospective parents on what to expect during pregnancy and birth, as well as on the health care and nutrition needs of a neonatal baby (Svensson et al., 2007:9-10). In a literature search conducted by the researcher, it was found that literature on antenatal programmes seemed to focus mainly on making antenatal programmes more accessible to communities (Rumbold & Cunningham, 2007:83-100; Panaretto, Lee, Mitchell, Larkins, Manessis, Buttner & Watson, 2005:514-519). Studies on antenatal programmes that were conducted in South Africa seemed to primarily focus on integrating education on HIV into antenatal programmes (c.f. Panaretto et al., 2005; Rumbold & Cunningham, 2007; Theron, 2007). Svensson et al. (2007:14) concluded that there was a gap between the needs of prospective parents and the content of antenatal programmes. The findings of their research indicated a need to provide new parents with more guidance and support for their role once the child is born, however these authors provided no recommendations on what the training should consist of.

Antenatal programmes could provide a platform for educating expecting mothers about the importance of secure attachment and their role in the development of secure attachment. In preliminary discussions with presenters of antenatal programmes in the district of Tshwane, it was found that existing antenatal programmes known to the presenters did not include information on attachment

(Beets, 2015; Strijbis, 2014; Visser, 2015). The researcher therefore wished to explore the perceptions of the presenters of antenatal programmes on including training on attachment in antenatal programmes. The goal of the study was to explore the views of antenatal programme presenters on the matter.

The following key concepts are relevant to the study:

**Attachment** is "the strong, intimate bond that we have with special people in our lives that leads us to experience pleasure and joy when we interact with them and to be comforted by their nearness in times of distress" (Berk, 2013:428). The first emotional bond is usually formed during infancy with mothers or primary caregivers, and provides the infant with comfort and support. Attachment is thus regarded as the process through which the first close selective relationship in a child's life is developed, usually with the primary caregiver (Oxford Concise Colour Medical Dictionary, 2010:62). The type of attachment formed during infancy, tends to persist into adulthood (Bowlby 1988:119). **Infancy** refers to the first two years of the child's life (Louw, Louw & Kail, 2014:8; Santrock, 2009:16-17; Sigelman & Rider, 2009:4). The first infant-caregiver attachment is usually with the mother (Goldberg, 2014:8; Holmes, 2009:25). In this study the **primary caregiver** will thus refer to the child's biological mother.

The **antenatal phase**, also known as the prenatal phase, refers to the phase before birth (Berk, 2013:84; Oxford Concise Colour Medical Dictionary, 2010:38; Dorland's Illustrated Medical Dictionary, 2007:99). A **programme** is defined as a plan arranged in a series of events or activities and with a purpose (Cambridge Learners Dictionary, 2011:709; Longman Dictionary of Contemporary English, 2012). **Antenatal programmes** provide prospective parents with training on the birth process and neonatal care (Svensson et al., 2007:9). For the purpose of this study antenatal programmes refer to programmes that are presented to pregnant women to prepare them for childbirth and for the care of the new-born baby.

Dorland's Illustrated Medical Dictionary (2007:1325) defines a **nurse** as a person who meets the needed clinical requirements to be a qualified professional to render services that are helpful and needed to promote, maintain or restore the health and

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well-being of others. For the purpose of this study an antenatal programme presenter refers to a qualified nurse who presents antenatal programmes to prospective mothers.

## 1.2   THEORETICAL FRAMEWORK

This study is based on attachment theory. Attachment theory is a framework for understanding how human relationships are shaped (Holmes, 2009:3). The theory was developed by John Bowlby in 1969, who viewed his theory as grounded in the ethological approach according to which human interaction is studied in natural settings (Bowlby, 2005:3; Bosmans et al., 2014:225). Ethology "is concerned with the adaptive or survival value of behavior and its evolutionary history" and has led to a significant concept in child development, namely the "critical period" (Berk, 2013:23). The critical period is concerned with a limited time frame in which a child is biologically ready to develop certain adaptive behaviours. It is further emphasised that during the critical period the child will need support from the environment in order to acquire these behaviours. Berk (2013:24) indicates that the term "sensitive period" is more relevant to human development. The sensitive period is seen as the optimal period for particular capacities to emerge.

Attachment theory suggests that all humans are predisposed to form a connection or bond with others and that the manner in which these attachment bonds form, will influence how the person perceives the self and the world around him/her (Sigelman & Rider, 2006:386). Bowlby refers to the behaviours that are inherent to this predisposition as attachment behaviour (Bowlby, 1998:39). Bowlby (1998:39) believed that the way a parent or caregiver responds to the attachment behaviour of the infant will either lead to a secure or insecure attachment between the parent and child. Children who develop a secure attachment perceives the mother or primary caregiver as a secure base from where they can explore the world and return to for comfort when they are distressed or frightened (Snyder et al., 2012:710).

Attachment theory emphasises the importance of the formation of a secure attachment with the primary caregiver during the first two years of life (Louw & Louw, 2014:133), as the type of attachment becomes embedded in the so-called internal

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working model; a mental template that will determine the child's expectations about interpersonal relationships (Snyder et al., 2012:710). Theorists believe that attachment styles are relatively static, as the internal working model functions as an unconscious process (Anderson & Gedo, 2013:252). Therefore, the type of attachment formed during the first years of life will continue into adulthood and forms the foundation for how other social relationships are perceived (Bowlby, 1998:39).

Bowlby's attachment theory is relevant to this study as the theory firstly stresses the importance of the development of secure attachment. Secondly, the ethological roots of the theory signify that there is a sensitive period or a particular time frame in which attachment develops, which is mainly in the first two years of the child's life. The researcher postulates that, due to these facts, mothers as primary caregivers of children should gain knowledge of the importance of attachment and their role in the formation of secure infant-caregiver attachment child. Furthermore, mothers should acquire this knowledge already before the birth of the child because of the sensitive period for the formation of attachment being the first two years after birth. Antenatal programmes are intended to prepare mothers for the birth and for the care of the infant (Svensson et al., 2007:9) and are presented before the birth of the child. These programmes could provide a timely opportunity to teach mothers about attachment and their role in the development of secure attachment in children.

## 1.3   RATIONALE AND PROBLEM STATEMENT

Attachment plays a significant role in the development of children. The first two years of a child's life is a sensitive period for the development of attachment (Louw & Louw, 2014:133-134). Based on the type of attachment that develops, the child forms an internal working model which serves as a template against which he/she evaluates all future relationships in life (Snyder et al., 2012:710). The quality of attachment therefore has a long-term effect on the child's development, lasting into the adult years (Steele et al., 2014:2256; Werner et al., 2013:576). Children with a secure attachment style will experience the self, others and the environment as positive and supportive, whereas the child with an insecure attachment style will be distrustful of others and the environment, and will be more likely to have impaired social, emotional and neurobiological functioning (Snyder et al., 2012:710).

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As the first infant-caregiver attachment is usually with the mother (Goldberg, 2014:8; Holmes, 2009:25; Werner et al., 2013:576), the mother plays a crucial role in the development of attachment (Berk, 2013:433). Social workers and other professionals can empower mothers by providing them with information on attachment and on their role in the development thereof. In South Africa, the Children's Act 38 of 2005, Section 144, specifies that prevention and developmental programmes should aim to support families, amongst others by developing parenting skills programmes that focus on enhancing parents' ability to act in the best interests of the child. UNICEF (2011:11) concurs and recommends that social services should focus on supporting families by strengthening the parent-child relationship.

When considering the phases according to which attachment develops (Berk, 2013:429; Louw & Louw, 2014:133-134), it is clear that the first two years of the child's life provides a window opportunity for the development of secure attachment. Antenatal programmes provide training to expecting mothers and could offer an opportunity to provide training on attachment. It seems that existing antenatal programmes focus mostly on the physical aspects of pregnancy, birth and infant care (Svensson et al., 2007:9). The researcher's preliminary investigation into antenatal programmes being offered in the district of Tshwane, confirmed the findings of the above authors that the primary focus of the programmes is on the physical aspects of birth and care of the infant (Beets, 2015; Strijbis, 2014; Visser, 2015). From the preliminary investigation it furthermore appeared that antenatal programmes were presented by nurses in collaboration with private hospitals or private clinics, while antenatal programmes were not being offered at public hospitals such as the Steve Biko and Tshwane District Hospital in Pretoria.

The researcher proposed that including information on mother-infant attachment into antenatal programmes could be a valuable opportunity for primary prevention interventions aimed at the development of secure mother-infant attachment. Such interventions could support preventive strategies as advised in the Integrated Service Delivery Model (Department of Social Development, 2005) that guides social service delivery in South Africa. Furthermore, Dennill, King and Swanepoel (2010:71) mention that South-Africa is moving towards a newly evolved dimension of health care, which supports a multidisciplinary and intersectoral approach. Social

workers can make a contribution to the health care sector by promoting the inclusion of training on attachment into antenatal programmes. The researcher viewed it as a relevant starting point to explore the perceptions of the programme presenters of current antenatal programmes about attachment and the inclusion of training materials on attachment into these programmes.

The study was guided by the following research question: What are the perceptions of antenatal programme presenters on including training on attachment into antenatal programmes?

## 1.4 GOAL AND OBJECTIVES OF THE STUDY

The goal of the study was to explore and describe the perceptions of antenatal programme presenters with regards to the inclusion of training on attachment into antenatal programmes.

The objectives of the study were as follows:

- To contextualise attachment.
- To describe the role of antenatal programmes.
- To explore and describe the extent to which training on attachment forms part of existing antenatal programmes in the district of Tshwane.
- To explore and describe the perceptions of antenatal programme presenters regarding attachment.
- To explore and describe the perceptions of antenatal programme presenters regarding the inclusion of training on attachment into antenatal programmes.
- To draw conclusions about the feasibility of incorporating training on attachment into antenatal programmes.

## 1.5 OVERVIEW OF THE RESEARCH METHODOLOGY

As the aim of the study was to explore and describe the perceptions of presenters of antenatal programmes on the inclusion of training on attachment into these

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programmes, a qualitative research approach was followed. Qualitative research involves exploring people's subjective experiences on a topic (Willig, 2013:9). The type of research was applied research as the research findings could provide information to address a situation in practice (Bless, Higson-Smith & Sithole, 2013:59). The research design was the collective case study design, which allowed the researcher to explore and compare the perceptions of several participants on the topic (Brandell & Varkas, 2010:377).

The population for the study (Babbie, 2013:115) consisted of the presenters of antenatal programmes in Tshwane. Purposive sampling was utilised to select the participants for the study according to specific sampling criteria (Strydom & Delport, 2011:392). The sample consisted of 10 presenters of antenatal programmes in Tshwane.

Data was collected by means of semi-structured interviews, guided by an interview schedule (Greeff, 2011:353; Welman, Kruger & Mitchell, 2012:166). After a pilot study (Welman et al., 2012:148), data analysis was conducted according to the suggested guidelines for qualitative data analysis (Bless et al., 2013:342-347; Shurink, Fouché & De Vos, 2011:404-418). The researcher implemented measures to enhance the trustworthiness of the findings (Lietz, Langer & Furman, 2006:454).

A detailed discussion of the research methodology and the ethical considerations underlying the study will be presented in Chapter 3.

## 1.6 LIMITATIONS OF THE STUDY

The researcher points to the following limitations of the study:

- The study sample was limited and the research findings can therefore not be generalised to the wider population.
- The researcher could not obtain details of antenatal programmes being offered in public clinics or public hospitals in Tshwane. The participants in the study were either employed in private practice or at a private clinic or hospital. The research

findings may thus not apply for presenters of antenatal programmes in public clinics or hospitals.

- The participants were mostly of one racial group, with the result that the research findings may not apply to antenatal programme presenters of all racial groups in South Africa.

## 1.7 CHAPTER OUTLINE

The research report consists of the following chapters:

## CHAPTER 1: GENERAL INTRODUCTION TO THE RESEARCH STUDY

Chapter 1 focused on an introduction and contextualisation of the research topic as well as the theoretical framework and the problem statement and rationale of the study. The goal and objectives of the study, a summary of the research methodology and an indication of the limitations of the study were presented.

## CHAPTER 2: MOTHER-INFANT ATTACHMENT

Chapter 2 provides a literature review pertaining to the topic of the study. Attachment is conceptualised, followed by a discussion on the formation of attachment, types of attachment, factors influencing attachment, and the long term effects of attachment. The chapter is concluded with a discussion of antenatal programmes.

## CHAPTER 3: RESEARCH METHODOLOGY AND EMPIRICAL FINDINGS

Chapter 3 focuses on a description of the research methodology and ethical considerations underlying the study, followed by the presentation of the research findings of the study.

## CHAPTER 4: CONCLUSIONS AND RECOMMENDATIONS

The key findings of the study are outlined in Chapter 4. Based on these findings, conclusions and recommendations are presented.

## 1.8 SUMMARY

This chapter served as an introduction to the research study and provided an overview of the research topic, the theoretical framework, the problem statement and rationale for the study, the goal and objectives of the study and a summary of the research methodology. The literature review that will serve as a background for the empirical study is presented in Chapter 2.

## CHAPTER 2

## INFANT-CAREGIVER ATTACHMENT

### 2.1  INTRODUCTION

In this chapter, a literature review pertaining to the development of attachment and the key concepts of attachment theory will be presented[1]. The literature review will focus on the core concepts of attachment, the formation of attachment, types of attachment and the measurement of attachment, factors influencing attachment, the long-term effects of attachment, and the link between attachment and brain development. The researcher will also present a discussion on antenatal programmes and on antenatal programmes that were identified in the South African context. Lastly, the potential to include information on attachment into antenatal programmes will be discussed.

### 2.2 CONCEPTUALISING ATTACHMENT

Attachment refers to the emotional bond between individuals and indicates a strong affectionate tie with significant people on one's life, in whose presence one experiences pleasure, joy and comfort (Berk, 2013:428). Attachment is seen as a behavioural system through which a person will seek proximity to another person for the purpose of achieving security and regulating emotional distress when under threat (Sigelman & Rider, 2009:407). The first attachment in life is usually between the infant and primary caregiver, which emphasises the importance of this relationship (Berk, 2013:428; Louw & Louw, 2014:132).

Attachment develops during the life stage spanning the first two years in a child's life, and attachment to a familiar or primary caregiver, usually the mother, becomes clear by the second half of the first year of life (Berk, 2013:428-429). This person becomes the child's attachment figure, which Bowlby (2007:309) describes as the person with whom a child will form a long-term emotional bond and whom the child will seek out

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[1] In the literature review the researcher includes older sources on attachment, which can be regarded as seminal sources.

when he/she needs comfort. The quality of this attachment will have a long-term effect on the child's cognitive, social, emotional and behavioural development (Steele et al., 2014:2256; Werner et al., 2013:576). Infancy, thus the first two years of a child's life (Louw et al., 2014:8; Santrock, 2009:16-17; Sigelman & Rider, 2009:4), is the most important period for establishing attachment.

Attachment theory is a widely accepted theory in developmental psychology (Hudson, 2013:148; Meredith, 2009:285) and provides a framework for understanding how human relationships are shaped (Holmes, 2009:3). John Bowlby (1958) introduced the concept of attachment in a paper entitled "The nature of a child's tie to his mother" (Bowlby, 1969:21). Bowlby conducted studies focusing on juvenile delinquents and children who have been raised in institutions and foster homes. Based on these studies he concluded that the deprivation of a mother's love had a negative developmental effect on infants and young children (Bowlby, 1969:15-16, 21). This deprivation has long lasting effects on the child and hinders his/her physical, intellectual, behavioral, and emotional development. Bowlby continued to develop attachment theory by publishing several books (1969, 1973, 1980) explaining his theory and detailing the importance of infant-mother attachment (Jennings, 2011:48).

Konrad Lorenz's studies on imprinting inspired Bowlby to apply ethological theory in the understanding of human attachment (Berk, 2013:24, 429; Sigelman & Rider, 2009:407). Lorenz (1935) conducted research with baby geese. He took one half of a batch of laid eggs and left the other half with the mother goose. After the eggs that he removed had hatched, Lorenz imitated the mother duck and noticed that the goslings regarded him as their mother, following him around everywhere. He concluded that the geese followed the first moving object they see within the first seventeen hours of hatching, when imprinting takes place, in order to be fed and protected. Imprinting is defined as "an innate form of learning in which the young will follow and become attached to a moving object (usually the mother) during a critical period early in life" (Sigelman & Rider, 2009:407). Although attachment is believed to be more complex and cannot be explained by imprinting only, Lorenz's study (1935) proposed that attachment develops within a critical period and his research contributed to the development of attachment theory (McLeod, 2009:2). In terms of

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human development, the term *sensitive period* is regarded as a more appropriate term, as the time boundaries of a sensitive period is less strictly defined. The sensitive period implies that some developmental tasks occur optimally within a certain period of time and, although development can happen later, it will be harder to achieve (Berk, 2013:24).

The early work of Harry Harlow also contributed to the understanding of attachment (Berk, 2013:428; Louw & Louw, 2014:132). Harlow conducted an experiment with monkeys who were reared with two types of "surrogate mothers". One surrogate mother was made out of wire and provided food, and the second was made of terry cloth and provided no food. Harlow (1958:673-685) reported that the infant monkeys would for most part cling to the cloth surrogate mother. In addition, when the infant monkeys were confronted with a threat they would run to the cloth "mother" for security. Harlow (1958:673-685) concluded that his study demonstrated children's need for security and nurturing from their mothers. This experiment refuted the views of the psychoanalysts Sigmund Freud and René Spitz that infants would become attached to the person who provides them with food (Louw & Louw, 2014:132; Santrock, 2009:192).

Mary Ainsworth, who collaborated with Bowlby in the 1960's was another influential researcher that contributed to the development of attachment theory (Jennings, 2011:49). Ainsworth (1967:429) described attachment as the "study of love" that initially forms between a mother and infant based on a pattern of behaviors. Whereas Bowlby identified the phases according to which attachment develops (Louw & Louw, 2014:133), the research conducted by Ainsworth (1960, 1978) focused on the interaction patterns between the mother/primary caregiver and the infant. Ainsworth (1960) was the first author to indicate differences in attachment patterns (Agishtein & Brumbaugh, 2013:385). Based on her research, Ainsworth identified three attachment types, namely secure, ambivalent/resistant and avoidant attachment, while the researchers Main and Solomon (1986) identified a fourth attachment type, namely disorganised attachment (Berk, 2013:430-431; Louw & Louw, 2014:134).

The core concepts underlying attachment contribute to a better understanding of the

phenomenon. These concepts form the focus of the following section.

## 2.3   CORE CONCEPTS OF ATTACHMENT THEORY

Attachment theory is based on a number of core concepts, namely the attachment relationship, attachment behaviors and patterns, as well as the internal working model (Holmes, 1993:67). Each of these concepts is subsequently discussed.

### 2.3.1 The attachment relationship

Attachment is regarded as the process through which a child forms his/her first intimate relationship, usually with the primary caregiver (Bowlby, 1988:121). Bowlby (1982 in Alhusen, Hayat & Gross, 2013: 521) describes the attachment relationship as a biologically driven relationship that is inherent in all humans; thus all humans will strive to form a bond with their primary caregiver. Thus, newborn babies and their mothers have a biological predisposition towards forming attachments (Santrock, 2009:193). Alhusen et al. (2013: 521) agree with Bowlby (1982) that the development of this bond will be based on the primary caregiver's nurturing and protective behaviours towards the infant. The attachment relationship is then a reflection of the quality of security and comfort the infant experiences in relation to the attachment figure (Parritz & Troy, 2014:80). Furthermore, forming an attachment is not a childhood need that the child outgrows, but is a need that persists throughout a person's lifetime (Holmes, 1996:6).

Weiss (1982 in Holmes, 1993:68-73) lists three key features of an attachment relationship, namely proximity seeking to a preferred figure, the secure base, and separation protest. These three key features are discussed subsequently.

### 2.3.1.1 Proximity seeking

Bowlby first explained the concept of proximity seeking as a biological desire that all infants have to seek proximity to their mother or primary caregiver (Bowlby, 1973:254). When the infant feels threatened or is in need of support, comfort or help, he/she will actively seek proximity to the attachment figure (Selcuk, Zayas, Gunaydin

& Hazan, 2012:362). Proximity seeking by the infant to a preferred attachment figure involves behaviours such as following, reaching for, smiling, and clinging to the primary attachment figure; all aimed at maintaining closeness to the attachment figure (Holmes, 1993:68-70; Sigelman & Rider, 2009:407).

Bosmans, Braet, Heylen and Raedt (2015:1) link the quality of the caregiver-child attachment relationship to the child's desire to seek proximity to the caregiver when he/she is distressed. Bosmans et al. (2015:15) found that there is a likelihood that children with insecure attachment patterns, such as avoidant or anxious attachment patterns, tend to wait longer to seek proximity to their caregiver when they were distressed than children with a secure attachment pattern. Proximity seeking is related to the fact that the attachment figure serves as a secure base for the child

## 2.3.1.2 The secure base

The primary caregiver has two major roles to fulfil, namely to provide a safe haven or secure base for the infant and to provide support to the infant (Hudson, 2013:149). The secure base refers to the infant's source of comfort or his/her safe haven (Maxwell, Spielmann, Joel & MacDonald, 2013:445). The infant uses the secure base as a safe point from which to explore his/her environment and to return to for reassurance, when needed (Smith et al., 2011:108). When the attachment figure is consistently there to serve as a source of comfort for the child, the infant will form a belief that the primary attachment figure will be available to provide support and comfort. The infant will thus learn that the attachment figure is a secure base that he/she can return to when perceiving a threat (Ainsworth, Blehar, Waters & Wall, 2015:21; Waters, Groh, Vaughn, Verissimo, Fraley, Steele, Bost & Coppola, 2015:824). Once the perceived threat is removed the infant will be able to relax and will continue to explore the environment with the knowledge that the caregiver will be available. Without a secure base, the infant will resort to defensive behaviours when confronted with a perceived threat.

The secure base may further be understood as an area of comfort with a relative propinquity to the attachment figure. An infant will for example explore his/her environment, and will start looking more towards the caregiver as the distance

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between the infant and the caregiver becomes greater. As the infant develops a sense of a secure base, his/her radius of exploration will become wider, and the infant starts to integrate a positive message about the world and others (Holmes, 1993:68-73). A strong attachment between the infant and the caregiver will facilitate the exploratory behaviours of the infant (Sigelman & Rider, 2009:412).

Shortly after the infant develops an attachment to the mother or primary caregiver, separation anxiety develops (Sigelman & Rider, 2009:412). Therefore, the infant will protest when separated from the mother or primary attachment figure.

### 2.3.1.3 Separation protest

Separation protest is the behaviour that the infant employs to avoid physical separation from his/her primary attachment figure, and involves behaviours such as crying, clinging, shouting, and kicking (Hofer, 2006:85). Separation protest results from separation anxiety that becomes evident once the infant starts to develop a clear-cut attachment to a primary caregiver (Berk, 2013:429). Separation protest starts around the age of six months, and gradually becomes less after the age of 15 to 18 months (Berk, 2013:429; Sigelman & Rider, 2009:412). It is noteworthy that, even when an infant is mistreated by his primary attachment figure, separation protest persists, which illustrates the strength of the infant's desire to maintain proximity to the primary caregiver (Holmes, 1993:68-73).

A second form of anxiety that develops shortly after a clear attachment starts to form, is stranger anxiety (Berk, 2013:429; Sigelman & Rider, 2009:412). Stranger anxiety refers to anxious reactions to strangers and is evident in fretful behaviours when being approached by an unfamiliar person. Stranger anxiety usually develops between eight and ten months of age and gradually declines during the second year (Sigelman & Rider, 2009:412).

The key features of an attachment relationship indicate that both the primary caregiver and infant have a responsibility towards this relationship. The infant seeks proximity and will protest when separated from the caregiver, and the caregiver should provide a secure base for the infant (Bowlby, 1988:129; Hofer, 2006:86).

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These behaviours will be elucidated in the following section.

### 2.3.2 Attachment behaviour and sensitive care

Attachment is a reciprocal process in which the primary caregiver and infant form the attachment bond together (Bowlby, 1969:203). Where the infant elicits attention by means of attachment behaviour, the caregiver needs to respond with sensitive care in order for attachment to develop positively (Hudson, 2013:149).

### 2.3.2.1    Attachment behaviour

From the moment an infant is born, he/she becomes part of a social world and responds to the social world. The infant's social world initially consists of his/her interactions with parents or caregivers (Reuther, 2014:108). Attachment theory proposes that all humans are predisposed or "programmed" to form a connection or bond with others (Reuther, 2014:104; Sigelman & Rider, 2009:407). At birth infants are attuned to humans and show signs of "marked bias" towards actions that mostly emanate from humans. Bowlby refers to this predisposition as "attachment behaviour" and defines attachment behaviour as any behaviour directed to retain or attain proximity to a significant person. (Bowlby, 1980:39). Johnson (2013:17) points out that infants are born with a desire to interact with others.

Infants demonstrate attachment behaviour through their attempts to maintain proximity to their caregiver and their resistance of separation from their caregiver (Meredith, 2009:85). Attachment behaviours include crying, smiling, clinging, looking or approaching the mother, seeking her closeness when experiencing discomfort or distress, and being confident to explore his/her environment when knowing that the mother is close (Santrock, 2009:193; Sigelman & Rider, 2009:407). The infant experiences these behaviours as successful when the mother responds with warmth, delight and physical contact (Louw & Louw, 2014:135).

### 2.3.2.2    Attunement and caregiver sensitivity

Sensitive care is one of the most important elements needed for a secure

attachment to form (Johnson, 2013:18). A mother's sensitivity can be explained as her ability to be aware of her infant's needs and emotions and meeting these needs appropriately, consistently, and timely. A synchronised relationship between the mother and infant is characterised by matched behaviour between the mother and child, and will develop if the mother is sensitive to the signals of her infant (Sigelman & Rider, 2009:411). This synchronised relationship is thus dependent on the mother's ability to be attuned to her infant (Berk, 2013:434).

The caregiver's attunement is regarded as the most important prerequisite for a secure attachment pattern to form (Holmes, 1993:9). Attunement refers to the intimate knowledge of and responsiveness to an infant's unique behaviour and emotions (Holmes, 1993:206). Bowlby (1998:39) believes that the manner in which a parent or caregiver responds to the attachment behaviour of the infant during the critical period of attachment development will lead to either a secure or insecure attachment pattern. Bowlby (1980:41) is further of the opinion that attachment behaviour with a primary caregiver will be active throughout life. Furthermore, the infant develops an internal working model shaped by his/her attachment experience.

### 2.3.3. The internal working model

The type of attachment formed during the first years of a child's life forms the foundation for cognitive schemas related to the self and relationships with others, also known as the internal working model (Berk, 2013:430). The internal working model entails cognitive schemas that represent the infant's memories of his/her day-to-day interactions with the mother or primary caregiver (Smith et al., 2011:118). It also contains the child's expectations about the availability of the caregiver and of support when the child is distressed (Berk, 2013:430). The internal working model is regarded as a cognitive representation of the attachment figure, the self and the interpersonal world, and therefore affects the way a child perceives the self and social relationships with others (Ainsworth, 1967:430; Bowlby, 1980:128). This representation model is stored in the unconscious, is always active and affects the child's day-to-day interactions (Bowlby, 1980:129). As the internal working model becomes part of the child's personality, it will continue into adulthood and affect all future relationships of the child (Berk, 2013:430).

Sensitive caregiving leads to the infant developing a sense of trust and supports the development of secure attachment, which leads to a life-long belief that the world is good (Santrock, 2009:193). Infants who have received sensitive and responsive care are thus likely to form an internal working model of the self as being lovable and other people as being reliable, while infants with who have received insensitive care may view the self as unlovable and others as unreliable (Sigelman & Rider, 2009:407-408).

Attachment gradually develops over the first two years of the child's life. Based on the ethological perspective to attachment, Bowlby and Ainsworth stressed the importance of the development of attachment especially during the first year of life and of sensitive care by the caregiver during this time (Santrock, 2009:193). The development of attachment will be discussed in the next section.

## 2.4 THE DEVELOPMENT OF ATTACHMENT

The development of attachment can be divided into four phases, namely pre-attachment, attachment-in-the-making, clear-cut attachment, and the formation of a reciprocal relationship (Goldberg, 2014:16; Louw & Louw, 2014:133-134). Each of these stages are characterised by certain infant behaviours (Ainsworth et al., 2015:23-27; Berk, 2013:429; Eisen & Engler, 2006:10; Goldberg, 2014:17-18; Louw & Louw, 2014:133-134) as indicated below[2]:

### 2.4.1  Pre-attachment phase

During the pre-attachment phase, which occurs during the first two to three months of age, infants do not distinguish between people. Their behaviour, for example grasping or clinging, will be indiscriminately aimed at any available adult, whether familiar or a stranger. However, towards the end of this phase the infant develops the ability to differentiate between adults because of time spent with one caregiver. Between the ages of eight and twelve weeks, the infant will be able to consistently identify his/her primary caregiver through visual and other sensory cues such as her

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[2] The age ranges indicated for the different developmental phases, are according to the indication by Louw and Louw (2014).

smell, voice or face. However, the infant will be comforted by anybody and will not protest if being left with an unfamiliar adult.

### 2.4.2  Attachment-in-the-making phase

The attachment-in-the-making phase, approximately between three and six months of age, is characterised by different reactions to familiar and unfamiliar people. A greater degree of attachment between the primary caregiver and infant may be noticed. The infant will actively initiate behaviour to promote proximity to and interaction with the primary caregiver, however may or may not protest if the caregiver leaves. Characteristic proximity-promoting behaviours include crying, babbling, grasping, smiling or clinging to the caregiver. When these behaviours are being met with positive responses from the caregiver and other adults, infants start to develop a sense of trust; thus, an expectation that the caregiver will respond to his/her signals.

### 2.4.3  Clear-cut attachment phase

The clear-cut attachment phase generally occurs from the age of six months to two years. In this phase, a clear attachment to a primary caregiver is observed. The infant seeks greater proximity to the primary attachment figure, and as the infant has mastered the skill of mobility, he/she will actively follow the primary caregiver. Due to the emergence of separation anxiety, the infant will protest when separated from the primary caregiver. Separation anxiety refers to the infant becoming upset when the caregiver leaves and manifest in behaviours such as clinging, crying and sadness. During this phase, the infant starts to display goal-directed behaviour and infants will thus plan and organise their behaviour to allow for proximity to their primary attachment figure. They use the attachment figure as a secure base from which to explore their environment. During this phase infants also start to form attachments with other people, such as the other parent, grandparents and siblings. However, the bond with the primary caregiver remains unique.

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### 2.4.4  Formation of a reciprocal relationship

The formation of reciprocal relationship phase occurs around the age of two years and is associated with more complex attachment behaviours between the primary caregiver and the child. Based on his/her emotional, social and cognitive development, the child develops the ability to recognise that his/her behaviour influences others and, in addition, becomes aware of the motives of others, such as when a mother plans to leave. As a result, the child attempts to influence the behaviour of the caregiver. An increased understanding of the caregiver's explanation of when they leave or will return, helps the child to cope with the caregiver's absence. As a result, separation anxiety starts to decrease.

Where Bowlby's theory on the development of attachment focuses mainly on the first two years of life, more recent research indicates that the development of attachment can be enhanced through the bonding process during pregnancy (Jennings, 2011:89). Bonding refers to a mother's feelings and connection to her child, and can be assessed by asking a mother questions about her feelings and emotions towards her baby during pregnancy and thereafter (Wittkowski, Wieck & Mann, 2007:172). A mother's bond with her child will directly influence the attachment relationship between the mother and baby (Wittkowski et al., 2007:172).  Sigelman and Rider (2009:411) indicate that parents "often begin to form emotional attachments to their babies before birth" while Jennings (2011:88) emphasises that the unborn child is "certainly affected by the mother's moods."

### 2.4.5 The formation of multiple attachments

When a child has developed an attachment to a primary attachment figure he/she will start to form attachments with secondary attachment figures (Siegel & Hartzell, 2014:105). A well-established emotional bond with a primary attachment figure is generally developed by the time the infant is 12 to 14 months old (Bowlby, 2007:309) The primary attachment is usually with the mother, who initially provides food and comfort for the infant (Siegel & Hartzell, 2014:105), however the child also develops attachment relationships with other important people in his/her life (Smith et al., 2011:109). Secondary attachment figures are usually people well known to the

primary attachment figure and who also form an active part in the child's life, such as fathers, grandmother's, nannies, friends and other relatives (Berk, 2013:437; Bowlby, 2007:30).

Infants tend to form secondary attachments with fathers who are actively involved in the parenting tasks to meet the infant's needs (Siegel & Hartzell, 2014:105). When an infant reaches the age of two years he/she will seek comfort and proximity from both parents equally (Berk, 2013:437). Fathers usually form an attachment with their infants through play and are likely to engage with them in energetic physical play. If play is offered by a sensitive and supportive father, it will assist the infant to regulate emotions and lead to the development of a secure attachment between the infant and father (Berk, 2013:437). In certain circumstances or cultures, grandparents will take over the role of the primary caregiver to infants and children, and strong attachment bonds will develop between the child and the grandparent (Berk, 2013:438; Santrock, 2009:195).

Different types of attachment are formed, based on the caregiver-infant interaction patterns during the development of attachment. The different attachment types will be discussed in the section below.

## 2.5 TYPES OF ATTACHMENT

Four types of attachment have been identified, namely secure attachment and three types of insecure attachment, being avoidant attachment, ambivalent/resistant attachment, and disorganised attachment (Meredith, 2009:285). Three of the attachment patterns, namely secure attachment, avoidant attachment and ambivalent/resistant attachment was identified by Mary Ainsworth, a Canadian psychologist who was particularly interested in the quality of the caregiver-infant attachment bond, and her team of researchers, while Main and Solomon (1986) identified the disorganised attachment pattern (Louw & Louw, 2011:134). These four attachment types or patterns generally form the basis for assessing the quality of attachment (Berk, 2013:430) and will be discussed below.

### 2.5.1 Secure attachment

A secure attachment signifies a positive bond between the child and the caregiver, and is regarded as the optimal attachment pattern (Goldberg, Muir & Kerr, 2009:11; Meredith, 2009:285; Siegel, 2003:7). Secure attachment develops when the primary caregiver is consistently responsive and sensitive to the physical and emotional needs of the child (Bowlby, 1988:123; Meredith, 2009:285); indicating a sensitive attunement to the needs of the child (Berk, 2013:434). The infant uses the caregiver as a secure base from which he/she explores the world, and the primary caregiver provides the child with a sense of security and comfort when the infant is frightened or in distress (Berk, 2013:430; Snyder et al., 2012:710). A caregiver who encourages secure attachment portrays the following behaviours: empathy, keeping the gaze of the child, using an entertaining vocal rhythm, face-to-face play, and being sensitive and responsive to the child's needs (Berk, 2013:434; Sigelman & Rider, 2009:414; Snyder et al., 2012: 7:10).

As a result of parenting styles that promote secure attachment, the child develops an internal sense of security and trust (Berk, 2013:429; Bowlby, 1988:123). This sense of security and trust will allow the child to explore his/her environment and internalise a positive message about the self, others and the world (Bowlby, 1988:123; Sigelman & Rider, 2009:407-408; Werner et al., 2013:576).

### 2.5.2 Avoidant attachment

Avoidant attachment is associated with caregivers that provide either too little or too much stimulation to the infant (Sigelman & Rider, 2009:414). On the one hand, avoidant attachment occurs when the primary caregiver does not react to the needs of the child and shows little or no interest in the child (Bowlby, 1988:123). Parritz and Troy (2014:82) refer to this type of parenting as an inadequate parenting style. The primary caregiver is usually overwhelmed, impatient, unresponsive and resentful, and not a competent parent, which makes her unable protect and nurture the infant (Parritz & Troy, 2014:82; Sigelman & Rider, 2009:415). On the other hand, the caregiver may be too intrusive and provide too high levels of stimulation, which leads to intense levels of arousal in the child (Sigelman & Rider, 2009:415).

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Because of avoidant attachment, the infant develops a negative internal message about the self. The infant tends to make little emotional demands on the caregiver (Sigelman & Rider, 2009:415). He/she may attempt to meet his/her needs by caring more for others than for the self. Later in childhood these children may avoid talking about their emotions and may be perceived by others as unfriendly. In adulthood, these individuals will place little value on social relationships and will be overly independent. This attachment style is also linked to adolescent suicide and narcissism (Bowlby, 1988:123; Goldberg, 2014:22; Goldberg et al., 2009:11; Parritz & Troy, 2014:82; Sheftall, Schoppe-Sullivan & Bridge, 2014:428).

### 2.5.3  Ambivalent/resistant attachment

When the primary caregiver's responses to the child are inconsistent, an ambivalent/ resistant attachment pattern develops (Bowlby, 1988:123; Kerns & Brumariu, 2010:664). Inconsistent caregiver responses occur when the primary caregiver's emotional reaction towards the child is unpredictable and the caregiver will, for example, oscillate between reacting in a passive, angry or helpful manner. This type of environment is frustrating and causes confusion for the child (Bowlby, 1988:123; Goldberg et al., 2009:11, Parritz & Troy, 2014:81). Due to the uncertainty, children with an ambivalent or anxious attachment pattern are prone to separation anxiety and tend to struggle to regulate their emotions (Bowlby, 1988:123; Sigelman & Rider, 2009:414). Children who present with this type of attachment tend to indiscriminately accept any attention and are unsure about themselves and others. The child may be fearful of others and his/her fear of abandonment usually continues into adulthood (Bowlby, 1988:123; Evaire, Ludmer & Dozois, 2014:312; Goldberg, 2014:22).

### 2.5.4  Disorganised/disoriented attachment

A disorganised/disoriented attachment pattern forms when the primary caregiver is focused on her own needs and not responsive to the needs of the child. The caregiver is often abusive towards the child, abuses alcohol or drugs, or is severely depressed, and is perceived as malicious and frightening by the child (Parritz & Troy, 2014:82; Sigelman & Rider, 2009:414). The attachment conflict experienced by the child develops due to the primary caregiver providing comfort at times, but is also the

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source of anxiety for the child (Parritz & Troy, 2014:82). As a result, the child may display attention seeking behaviour and internalise a confused message about the self and others (Goldberg et al., 2009:11). The caregiving environment is extremely unpredictable and frightening, which could explain why children with disorganised/disoriented attachment show the greatest attachment insecurity (Louw & Louw, 2014:134; Sigelman & Rider, 2009:415).

The attachment patterns discussed above are identified through the observation of mother-infant interactions.

## 2.6   MEASURING ATTACHMENT

Mary Ainsworth and her colleagues developed the Strange Situation as a technique to assess the quality of attachment between the caregiver and a child between the ages of one and two years (Berk, 2013:430). Other instruments to measure the security of attachment have subsequently been developed, for example the Attachment Q-Sort which measures attachment of children between one and four years of age (Berk, 2013:431). In this section the researcher will provide a brief overview of the Strange Situation, which is a well-known technique for assessing attachment and informed the identification of the four attachment types (Berk, 2013:430; Louw & Louw, 2014:134).

### 2.6.1 The Strange Situation

The Strange Situation is a widely used technique to assess the quality and nature of attachment between a primary caregiver and a one- to two-year old child (Berk, 2013:430). The assessment is conducted as a laboratory technique in a small room with a one-way mirror for observation of the caregiver and infant to be covert. The behaviour of the infant in eight different episodes of separation from and reunion with the caregiver, lasting approximately three minutes each, is observed (Ainsworth et al., 2015:23, 25, 35; Berk, 2013:230). The eight episodes are structured as follows (Ainsworth et al., 2015:23-45; Berk, 2013:431):

- The caregiver, infant and professional person will be in the playroom together for about a minute, after which the professional person leaves the room.
- The caregiver and infant are left alone in the room, while the infant plays with toys.
- A stranger joins them in the room and talks to the caregiver.
- The caregiver leaves the infant alone in the room with the stranger.
- The caregiver returns to the room, greets the infant and comforts the infant if needed, and the stranger leaves.
- The caregiver leaves the room and the infant is left alone in the room.
- The stranger returns to the room and offers comfort to the infant.
- The caregiver returns to the room, greets the infant, comforts the infant if necessary, and the stranger leaves the room.

Observation is focused on the infant's behaviour directed towards the caregiver during the eight episodes (Berk, 2013:430). Notes are made about the infant's proximity seeking, maintaining contact, and resistance to contact or comfort. Based on these observations a conclusion is drawn about the type of attachment that exists between the caregiver and infant (Ainsworth et al., 2015:23-25, 40, 45). The indicators of the different attachment patterns will be briefly outlined.

**2.6.2 Indicators of different attachment patterns**

During the Strange Situation, the attachment quality is determined by the reunion responses of the infant on the return of the mother or caregiver, separation protest when the mother leaves, and the use of the caregiver as the secure base (Berk, 2013:230; Sigelman & Rider, 2009:414). The infant responses that will indicate the different attachment patterns are summarised below (Berk, 2013:430; Louw & Louw, 2014:134; Sigelman & Rider, 2009:412-415):

2.6.2.1 Indication of a secure attachment pattern

When a secure attachment pattern exists, the infant uses the caregiver as a secure base. The infant freely explores the room when the mother is present and returns to

her for comfort. The infant may or may not cry when the caregiver leaves the room, but shows clear preference towards the caregiver over the stranger. When the caregiver returns the infant will actively seek contact and, if the infant was crying during the absence of the caregiver, the crying will lessen immediately on her return.

## 2. 6.2.2 Indication of an avoidant attachment pattern

An avoidant attachment pattern is characterised by the infant being unresponsive towards the caregiver throughout the observation session. The infant shows little interest in exploring the room and shows little or no distress when the caregiver leaves the room. The infant's response to the caregiver and stranger is very similar and the infant is slow to react or greet the caregiver when she returns. When picked up by the caregiver the infant often will not cling to the caregiver, appearing as if the infant has detached from the caregiver and denies the need for warmth or affection.

## 2.6.2.3 Indication of an ambivalent/resistant attachment pattern

When an ambivalent/resistant attachment pattern is present, the infant may seek closeness to the caregiver before the initial separation, may cling to the caregiver, and may fail to explore the environment. Once the caregiver leaves the room, the infant usually becomes extremely distressed. When the caregiver returns the infant may not stop crying and is not easily comforted. The infant usually reacts with ambivalent behaviour; clinging to the caregiver and at the same time hitting, pushing, or kicking the caregiver.

## 2.6.2.4 Indication of a disorganised/disoriented attachment pattern

The infant with a disorganised/disoriented attachment pattern for most of the session appears confused, frozen, and has a dazed facial expression. On the caregiver's return to the room, the infant may appear confused; usually showing limited emotions towards the caregiver or turning away while the caregiver is holding him/her. The child appears to be caught between the need to move closer to the caregiver and avoiding the caregiver.

Children, as they grow up, continuously revise their internal working model based on their developmental stage and their interaction in the social environment throughout the life-span (Berk, 2013:430). Although the initial attachment pattern seems to be relatively stable, it is also accepted that the attachment pattern that was formed during infancy, might change over the life-span.

## 2.6.3 Stability of attachment

A study conducted by Bosmans et al. (2014:239) on the stability of attachment revealed that one's attachment pattern is relatively static and that the attachment patterns of children in middle childhood were relatively stable during their day-to-day interactions. Furthermore, the research findings indicated that attachment has a long-term effect a person's perception about the self, others and the world.

It appears that the internal working model can however be revised as children are exposed to new interpersonal interactions and events (Smith et al., 2011:120). Research studies indicate that children with secure attachment are more likely to maintain their attachment status than those with insecure attachment patterns (Berk, 2013:432). The stability of attachment seems to be influenced by factors such as the socio-economic status (SES) of the family, parenting style, the type of attachment that was formed during infancy, and the quality of the child's future relationships.

Infants who grow up in middle SES families with sensitive, responsive mothers generally develop a secure attachment pattern. This secure attachment pattern is likely to remain stable as the environment the child will be raised in, is generally more favourable (Berk, 2013:432). In contrast, Berk (2013:432) refers to various studies which found that children in low SES families who had a secure attachment during infancy, over time tended to move to an insecure attachment pattern, while infants with insecure attachment were likely to move from one type of insecure attachment to another. This situation could relate to limited resources and support, and the many daily stressors on parents that are characteristic of low SES families. Thus it can be stated that children in middle SES families are more likely to maintain a stable attachment than children from low SES families (Berk, 2013:432).

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In terms of the stability of the type of attachments that were formed, a study by Chopik, Edelstein and Fraley (2013:171) indicated that an avoidant attachment pattern fluctuates little during the life-span. In relation to an ambivalent or anxious attachment pattern, the study revealed that anxiety during the young adulthood phase was higher than during any of the other developmental phases (Chopik et al., 2013:171-172). These changes in the intensity of attachment patterns are consistent with theories explaining social role changes across the life-span (Chopik et al., 2013:172).

Finally, Berk (2013:441) concludes that the stability of attachment is conditional and will depend on the quality of the person's future interpersonal relationships. This view is supported by Sigelman and Rider (2009:420) who, based on different studies on attachment, propose that positive life events later in a child's life could change insecure attachments into more secure attachments. Research indicates that attachment types tend to remain relatively stable over the first few years of life, but may change due to life experiences or life events the person is exposed to over time (Smith et al., 2011:121). These life experiences could either be positive or negative, which would then support the continuation of either secure or insecure attachments (Berk, 2013:432).

Different factors may have an influence on the security of the infant-caregiver attachment bond. A number of these factors are discussed in the following section.

## 2.7  FACTORS INFLUENCING ATTACHMENT SECURITY

Not all infant-caregiver interactions result in secure attachment (Louw & Louw, 2014:135). Factors related to the caregiver, the child, and the environment may affect attachment security.

### 2.7.1  The quality of caregiving

In the discussion of the different types of attachment, the key role of the quality of caregiving on the development of attachment is a central theme. Sensitive caregiving, in which the caregiver responds consistently, appropriately and timely to

the needs of the infant, is associated with the development of secure attachment (Berk, 2013:434). On the other hand, caregiving that is inconsistent, indifferent, unresponsive, resentful, intrusive and/or abusive underlies the different patterns of insecure attachment (Sigelman & Rider, 2009:414-415).

## 2.7.2 The primary caregiver's personality

There is a positive correlation between secure attachment and the personality of the primary caregiver. Positive attachment is associated with caregivers who are friendly, supportive, playful, affectionate and helpful. Caregivers that are more likely to support the formation a secure attachment are psychologically better adjusted than those who form an insecure attachment with their infant. Caregivers that enhance the development of secure attachment styles appear to be more responsive and sensitive to the needs and emotional signals of their babies (Louw & Louw, 2014:135; Sigelman & Rider, 2009:414), indicating a capacity to be attuned to the needs of the child.

## 2.7.3 The primary caregiver's internal working model

Primary caregivers have their own history of attachment experiences, which contribute to their own internal working model (Berk, 2013:436). However, the mother/primary caregiver's internal working model may also be affected over the course of life by various factors, such as relationship experiences, trauma, and personality. Although a primary caregiver could potentially change a negative internal working model by forgiving and attempting to understand events in the past, the existing internal working model will influence caregiving behaviours and will have a direct effect on the quality of attachment between the caregiver and infant (Berk, 2013:436-437). Research indicates that the adult's internal working model will affect his/her capacity for caregiving, specifically the capacity for providing sensitive and responsive care (Sigelman & Rider, 2009:433). Attachment styles are likely to be transmitted from childhood into adulthood, and even across different generations (Smith et al., 2011:121-123).

### 2.7.4  The temperament/personality of the infant

As with caregivers, infants are actively involved in the formation of an attachment with their primary caregiver and the infant's characteristics will thus influence the development of attachment (Sigelman & Rider, 2009:416). If an infant has a difficult temperament, it may have a negative effect on the primary caregiver and may in turn negatively affect attachment. Conversely, an infant with an easy temperament may support a harmonious relationship between the infant and the primary caregiver, which may positively influence attachment (Louw & Louw, 2014:136). Kagan and Fox (2006:225) conclude that infants who have an irritable and fearful temperament may react with intense anxiety to brief separation from their primary attachment figure, regardless of whether the primary caregiver is attuned to the infant's needs or not. Premature infants are generally more irritable, less interactive and more difficult to comfort, which could have a negative effect on attachment, especially when a caregiver has poorer parenting skills (Johnson, 2013:18; Sigelman & Rider, 2009:416).

An infant with a difficult temperament may however still develop a secure attachment pattern if the primary caregiver is sensitive to the needs of the infant (Berk, 2013:435). Consistent with this view, Velderman, Bakermans-Kranenburg and Van IJzendroon (2006) as cited in Berk (2013:435) indicate that interventions to teach primary caregivers skills on how to interact sensitively with infants with difficult temperaments have had high success rates in enhancing the quality of care and attachment.

Goldner and Sharf (2013:473) point out that attachment and personality are two main areas that influence a child's socio-emotional development. Based on the interplay between these two aspects, children with positive personality traits were found to be able to minimise the effects of an insecure attachment style (Goldner & Sharf, 2013:487).

## 2.7.5 Early availability of a consistent caregiver

It appears that children who are institutionalised and thus deprived of a close emotional bond with a consistent caregiver, are at risk for developing insecure attachment, as indicated in several studies cited by Berk (2013:433). The author describes studies that focused on infants being cared for in institutions. In these studies it was found that infants who spent their first year in orphanages and experienced shared care and a high staff turnover, presented with high rates of attachment insecurity. The findings are in line with those of John Bowlby on the negative effects of infants' separation from parents during the Second World War, which led to his theory that emphasised the importance of the presence of a primary caregiver in the infant's life (Louw & Louw, 2014:133).

Some authors are of the opinion that mother-infant contact directly after the birth of the baby can enhance the formation of a secure attachment pattern (Johnson, 2013:22). Dodwell (2010 in Johnson, 2013:19) found in his study that mothers who had close physical contact with their children during the first two hours after birth had a more interactive and positive relationship with their children compared to mothers who did not have that contact during those two hours.

## 2.7.6  The working mother/primary caregiver

Worldwide and in South Africa, more women are employed (Louw & Louw, 2014:136). Research that was conducted to explore how employment of the primary caregiver affects attachment, established that there should be no negative effect on attachment if a healthy relationship between the caregiver and infant exists prior to the caregiver resuming work (Louw & Louw, 2014:136). Huston and Aronson (2005:480) concluded in their study that the quality of attachment will not be compromised if a working mother makes provision to daily spend quality time with her child. Furthermore, a sufficient family support system and limited stressors in the caregiver's life may prevent her work from having a negative influence on the caregiver-child bond.

However, where primary caregivers lack the support of the family and experience feelings of guilt for working, attachment could be negatively affected (Louw & Louw, 2014:136). The availability of a day care centre for children during the caregiver's working hours could be a source of social support and, in addition, could have a positive effect on an infant's cognitive and social development (NICHD Early Child care Research Network, 2006:20).

### 2.7.7  Mental health of the primary caregiver

Mental health problems experienced by the mother, such as post-partum depression, have a negative influence on attachment (Alhusen et al., 2013:526; Louw & Louw, 2014:136). The findings of a study conducted by O'Higgins, Roberts, Glover and Taylor (2013:389) indicate that there is an association between post-partum depression and poor mother-infant attachment. Mothers who are depressed find it difficult to respond sensitively to their babies (Sigelman & Rider, 2009:414). A study by Alhusen et al. (2013:526) found that depression during pregnancy may negatively affect the mother's ability to form a bond with her unborn child. Furthermore, it indicated that women who suffer from depression during pregnancy are likely to experience post-partum depression, which will continue to have a negative effect on the mother's ability to facilitate the formation of a secure mother-infant attachment. The authors therefore recommend that more focus should be placed on assessing a mother's psychological wellbeing and attachment style during pregnancy as it would allow high risk mothers to receive early intervention (Alhusen et al., 2013:527).

### 2.7.8  Socio-economic factors

Marital problems, poverty, trauma, unemployment, and a lack of social support tend to have a negative effect on mother-infant attachment (Louw & Louw, 2014:136). A caregiver who is exposed to the stresses associated with these factors may have limited time and energy available to attend to the infant's needs and a lower capacity for sensitive care (Louw & Louw, 2014:136; Sigelman & Rider, 2009:416). Berk (2013:436) indicates that such stressors may have a direct and indirect effect on the quality of attachment. It may directly affect the infant's sense of security, as the

family environment may be tense, and may indirectly interfere with the primary caregiver's sensitivity to the needs of the infant.

## 2.7.9  Cultural factors

According to Agnishtein and Brumbaugh (2013:386) most psychological theories, such as attachment theory, are based on Western middle class Caucasian contexts. Jennings (2011:49) indicates that there is limited research conducted on culture and the influence that culture has on parenting and child development. A criticism against attachment theory is then that it ignores the diversity of the contexts in which infants live (Santrock, 2009:195).

The first cross-cultural study of attachment was conducted by Mary Ainsworth (1963) who observed mother-child interaction patterns in the homes of Ugandan families (Jennings, 2011:49). Ainsworth (1963) concluded that these infants' attachment patterns were similar to the Western population and that the infants also attached to their mothers. Since Ainsworth's first study, several studies indicated that cultural influences on parenting practices can affect attachment. Louw and Louw (2014:135) refer to studies that support this view. Studies conducted among Japanese and German parents indicate that Japanese mothers teach their children to be dependent, while German mothers emphasise independence. It was found that in the Strange Situation, Japanese children showed more ambivalent/resistant behaviour, and German children showed more avoidant attachment behaviour (Louw & Louw, 2014:135).

Agishtein and Brumbaugh (2013:395) compared attachment patterns in Asian Indian, African American, Caucasian, Hispanic, and Asian cultures. The findings of their study revealed that the East Asian research sample presented with the highest level of attachment anxiety, with the average level of anxious attachment patterns higher than the global percentage. The Asian Indian research sample showed the lowest level of attachment anxiety, whereas a positive relation was found between attachment anxiety and collectivism, indicating that attachment anxiety was higher in collectivist cultures than in individualistic cultures (Agishein & Brumbaugh, 2013:396-398). In contrast to individualism, collectivism refers to cultural groups who believe

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that one's identity is defined based on being part of the group (Angishein & Brumbaugh, 2013:396-397).

A study on socio-economic influences on attachment was done in South Africa by Tomlinson, Cooper and Murray (2005:1051). The findings of their study on attachment patterns with a research sample from Khayalitsha, a peri-urban settlement, indicated high levels of securely attached infants (67% of the total sample) despite many social adversities in the community (Tomlinson et al., 2005:1051). These authors are of the opinion that the findings could relate to the spirit of Ubuntu, according to which children are seen as belonging to the community and raising a child is a collective responsibility. Research done by Ruhiiga (2014:610) brought to attention that there is a decline in populations in rural and peri-urban settlements, and that the South African census of 2011 indicated a relatively high urbanisation rate of 61,7%. These changes could affect attachment patterns within South-Africa if urbanisation will lead to an individualistic view of raising children.

In their research, Mak, Han, You, Jin and Bond (2011:234) compared mother-child interaction patterns of mothers and children in Hong Kong and the United States. They concluded that the attachment patterns were similar in these two countries. The authors propose that a possible reason for the similarity could be that the parenting style of parents in Hong Kong seems to be derived from Western cultures as a result of acculturation (Mak et al., 2011:234).

The importance of a secure attachment style becomes evident when the long-term effects of attachment are considered. These effects are discussed in the following section.

## 2.8   THE LONG-TERM EFFECTS OF ATTACHMENT

As infants interact with their primary caregiver, they develop a cognitive representation of the self and others, and of the likelihood that others will provide support during times of stress; referring to the internal working model (Berk, 2013:430). Based on the type of interaction with the primary caregiver, a positive or

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negative internal working model can develop. This internal representation of the self and the world becomes part of the personality (Berk, 2013:430; Shaffer, 2009:156) and the internal working model is thus regarded as the mechanism according to which early attachment experiences affect the child's later development (Sigelman & Rider, 2009:408).

## 2.8.1 The effects of secure attachment

Over the years, research has demonstrated the positive effects of a secure attachment style on the psychosocial functioning of the individual. Multiple studies have established that children who had a secure attachment at the age of one, where more cheerful, cooperative and less aggressive in later childhood (Hardman, 2012:124). Bowlby (1988:167) found that primary school children with a secure attachment are more confident and hopeful as opposed to children with an insecure attachment pattern. In addition, securely attached children showed empathy to others, were more persistent to solve problems, had higher self-esteem, and scored higher on cognitive and language tests than children with an insecure attachment pattern (Berk, 2013:440). Research studies support the fact that securely attached infants are more independent and eager to learn, more socially competent, and show a greater capacity to regulate their emotions and cope with stress during their later childhood years (Sigelman & Rider, 2009:419).

During the adolescent phase a secure attachment provides adolescents with a secure base from which to explore their world and complete the developmental task of autonomy (Louw & Louw, 2014:363-364). Adolescence marks the stage of the development of autonomy and greater independence from parents (Berk, 2013:577). For many adolescents, the transition from home to university or college occurs during this developmental phase. Sigelman and Rider (2009:426) refer to various studies that showed that securely attached adolescents are more likely to display positive psychological and social adjustment skills during this transition. In general, these adolescents had better social, emotional and behavioural competencies, a higher self-esteem and a strong sense of identity. Conversely, suicidal tendencies were found to be higher amongst adolescents with an insecure attachment and

negative internal working model than in adolescents with a positive internal working model and secure attachment (Sheftall et al., 2014:428).

There appears to be limited research studies on the long term effect that attachment has on adults (Chopik et al., 2013:171). Available studies however indicate that the infant attachment style and the internal working model do influence adults in their views of themselves and of others. In this sense, adults with a secure internal working model tend to feel good about themselves and about others, have a strong achievement motivation, and focus on mastering challenges (Sigelman & Rider, 2009:431, 433). Attachment patterns may also have an effect on how adults cope with stress, their life satisfaction, and the manner in which they regulate their emotions. Adults with a secure attachment pattern seem to cope better with stress, have a higher level of life satisfaction, regulate their emotions more effectively, and have a higher level of religious commitment than adults with an insecure attachment pattern (Mak et al., 2011:225). It is believed that attachment styles can affect a person's adjustment even in old age (Sigelman & Rider, 2009:433).

Romantic attachment has been studied from the perspective of attachment theory. The research findings indicate that, similar to secure infant-caregiver attachment, a person in a secure romantic relationship experiences the desire for proximity to his/her loved one and takes comfort and security from the partner. This romantic relationship is also described as a committed and intimate relationship. Similar to the infant-primary caregiver attachment, there are different attachment styles connected to adult attachment (Sigelman & Rider, 2009:432-433). A study conducted by Hazan and Shaver (1987 in Sigelman & Rider, 2009:432) found a link between the adult's attachment style, the primary attachment pattern with his/her mother or primary caregiver, and the quality of adult romantic relationships. Adults with a secure internal working model are unafraid to enter into a romantic relationship. To the contrary, adults with an anxious resistant attachment pattern, tend to be overly dependent on their partners. They are fearful that their partners will leave them, and base their self-worth on the relationship (Sigelman & Rider, 2009:432).

Research supports the fact that secure attachment enhances various aspects of a child's development, for example his/her confidence, emotional understanding and

emotional self-regulation, social skills, interpersonal relationships and academic achievement (Berk, 2013:441). To the contrary, insecure attachment which results from insensitive parenting and a negative family environment, were found to put children at risk for developmental difficulties and were associated with behaviour problems in children (Berk, 2013:440).

## 2.8.2 The effects of insecure attachment

Sigelman and Rider (2009:420) mention that "children are unlikely to develop normally if their first relationships in life are repeatedly severed or if they never have the opportunity to form an attachment." Research studies have found that children's early attachment can be linked with their behaviour and adjustment in later childhood (Santrock, 2009:195). Infants with insecure attachment patterns tend to experience more negative emotions and hostility towards other children during early childhood, whereas they show more dependence on others during the school years (Louw & Louw, 2014:137-138). Children with insecure attachment are more likely to have a low-self-esteem, which can lead to depression and anxiety in the adolescent phase (Lecompte, Moss, Cyr & Pascuzzo, 2014:255).

Children and adolescents with an insecure attachment tend to internalise their problems and present with a high risk of being diagnosed with anxiety, because they struggle to see their primary attachment figure as a secure base and could struggle with emotional self-regulation (Kerns & Brumariu, 2014:13; Lecompte et al., 2014:255). Noteworthy is the fact that disorganised/disoriented attachment was "consistently related to internalizing problems (fear and anxiety) and externalizing problems (anger and aggression) during the preschool and school years" (Berk, 2013:440). These children were also found to compensate for their parents' confused communication by trying to control their parents' behaviour by being either overly conforming or presenting with hostile behaviours. Disorganised/disoriented attachment indicates the greatest attachment insecurity (Louw & Louw, 2014:134).

Adolescents with insecure attachments and without a secure base were found to lack the emotional, social, behavioural and personal advantages of those with a secure attachment (Sigelman & Rider, 2009:426). In terms of the developmental task

of autonomy, these adolescents also found it more difficult to separate from their parents.

Insecure attachment that was formed during the childhood years can result in various psychosocial problems in adulthood. Adults with insecure attachment patterns are more likely to feel unloved or unworthy of love, have a fear of abandonment, and show a tendency for seeking approval and being overly dependent on others or distrustful of others (Sigelman & Rider, 2009:431, 433). Insecure attachment is also related to emotional problems such as anxiety disorders as well as problems with interpersonal relationships during adulthood (Louw & Louw, 2014:138). Paradiso, Naridze and Holm-Brown (2011:1016) indicate that there is a link between an insecure attachment pattern and depression in adults. Their study concluded that individuals with a late or early onset of depression showed insecure attachment patterns.

As attachment is an important element of romantic relationships, the adult with an avoidant attachment style struggles to trust his/her partner and tends to dismiss the importance of an intimate relationship (Li & Zheng, 2014:1263-1264; Sigelman & Rider, 2013:431). Furthermore, adults with an insecure attachment may avoid forming any intimate relationship during young adulthood (Chopik et al., 2013:171).

In conclusion, it is generally accepted that secure attachment in infancy provides a foundation for positive psychosocial development over the life-span (Santrock, 2009:195). However, Sigelman and Rider (2009:420) warn that one must "avoid concluding that infants who are insecurely attached to their mothers are doomed … [as] positive life changes can make insecure attachments more secure …"

Recently, there seems to be a growing focus on attachment and brain development. The next section will focus on how attachment can influence brain development.

## 2.9   THE NEUROBIOLOGY OF ATTACHMENT

Research has shown that the development of an infant's brain is dependent on the quality of the social interaction he/she experiences during the first six months of life

(Sunderland, 2006:20). A study that was conducted by Rincon-Cortes and Sullivan (2014:7) indicate that the quality of attachment during infancy can have a long-term effect on the person's neurobiological development.

Bowlby (2007:310) explains that the most significant time for an infant's right brain hemisphere to develop is between birth and 33 months of age. The right hemisphere of the brain is responsible for empathetic understanding and emotional skills. In addition, research in the field of neuroscience has shown that the attachment bond and the interaction between a mother and infant have a neuro-chemical effect. This neuro-chemical effect is highlighted by Sue Jennings (2011) in her theory of neuro-dramatic play and attachment. Neuro-dramatic play is based on a combination of neuroscience, attachment theory, various childhood developmental approaches, and play therapy intervention with children (Jennings, 2011:28).

The theory of neuro-dramatic play concurs with attachment theory that there is a sensitive period linked to the development of an attachment bond in the first months of the baby's life, and that this attachment will form the foundation for future social relationships (Jennings, 2011:61). In addition, Jennings (2011:89) mentions that attachment between the mother and child can be encouraged before birth by means of exercises that increase the bonding between the mother and her unborn baby.

Jennings (2011:86-88) indicates certain developmental stages of the unborn child in terms of the sensory responses occurring in the foetus. At 20 weeks of pregnancy the foetus is able to experience sensory stimulation. When the foetus is 24 weeks old, reaction to light develops and the foetus will also be able to notice the mother's voice as well as music. At 28 weeks the mother's mood will affect the foetus and at 32 weeks the auditory function of the foetus becomes more sensitive. At 40 weeks, rehearsal play may be observed in that the foetus acts as if searching for the mother's breast for feeding. Thus, the foetus "rehearses" skills needed for survival even before being a part of the environment outside the womb (Jennings, 2011:88). Neuro-dramatic play during pregnancy would include having conversations with the foetus, practicing yoga, singing songs, and listening to relaxing or rhythmic music (Jennings, 2011:92-94). However, Jennings (2011:88) cautions expecting mothers against overstimulation of the unborn child.

Given the abovementioned, Jennings (2011:89-90) recommends that expecting mothers should gain knowledge on pre-birth attachment to provide them with the skills needed to start forming a healthy attachment bond with their unborn child. Jennings (2011:89) believes that "the more we focus on pre-birth attachment, the more the transition to mother and babyhood will be both beneficial and pleasurable." This view, together with the fact that infancy is regarded as a sensitive period for the development of attachment (Santrock, 2009:193-194), is in support of interventions that focus on expecting mothers, before their babies are born. Antenatal programmes are designed to prepare expecting mothers for child birth and neonatal care (Svensson et al., 2007:9), as will be discussed in the next section.

## 2.10  ANTENATAL PROGRAMMES

Antenatal programmes are programmes that are presented to expecting mothers to prepare them for the birth and care of the baby.

### 2.10.1 The focus of antenatal programmes

Antenatal programmes are intended to provide expecting mothers with knowledge on the growth milestones of the unborn child, physical preparation for the birth process, and nutrition and care of the infant after birth (Jennings, 2011:82; Svensson et al., 2007:9-10). These programmes are predominantly developed by nurses, and the focus of the programmes are mostly on educating prospective parents on what to expect during pregnancy, birth and care for the neonatal baby (Svensson et al., 2007:9-10).

Some programmes described in the literature had a wider scope than the predominant focus on the above-mentioned aspects. Literature on antenatal programmes suggests that some programmes also focus on the emotional well-being of expecting mothers. Several research studies point to the need to include support for mothers as part of antenatal programmes so as to reduce maternal anxiety (Van Der Bergh & Marcoen, 2004:1085; Woolhouse, Mercuri, Judd & Brown, 2014:369-370). Based on a study conducted in New Zealand it was concluded that it would be beneficial to include the spiritual aspect of giving birth in antenatal

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programmes (Crowther, 2014:13). Crowther (2014:8) states that the process of giving birth is a profound moment in a woman's life and including spiritual preparation for this moment in antenatal programmes would lead to a more holistic, positive experience of the process of birth.

Raymond, Foureur and Davis (2014:404) conducted a pilot study on antenatal programmes that address obesity in pregnant women. The purpose of the programme was to provide women with guidelines and support to reduce their weight in a healthy manner during pregnancy. After testing the pilot programme, the authors concluded that their programme had a positive outcome in reducing weight in obese pregnant women. This programme further provided the mothers with a support system to assist them to cope with the transition to motherhood (Raymond et al., 2014:400).

Svensson et al. (2007:12) evaluated the effectiveness of a new antenatal programme in Sydney, Australia. The antenatal programme "Having a Baby" was based on a needs assessment from expecting and new parents. The programme had more information than the average antenatal programme and included information on how parents could develop and stimulate their infants. Svensson et al. (2007:12) concluded that this antenatal programme had positive outcomes as it improved knowledge about parenting and enhanced maternal self-efficacy.

The researcher could locate only two journal articles linking attachment with antenatal programmes. However, the focus of these articles was not on the content of antenatal programmes, but rather on the assessment of attachment during the antenatal phase. Denis, Callahan and Bouvard (2015) tested the psychometric properties of a French translation of the Maternal Antenatal Attachment Scale (MAAS). They found that the translated version of MAAS had positive outcomes, but recommended that more research was needed to test the validity of the translated scale. Rackett and Holmes (2010:44) recognised that there is a need to assess attachment as early as possible, and suggested that there should be a greater focus on how to facilitate a positive attachment during the antenatal phase of pregnancy.

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A number of literature sources found during the literature search for this study, focused on the accessibility of antenatal programmes. In their study, Berglund and Lindmark (2000:854) indicated that socio-economic class and the ability to pay for services, such as antenatal care services, had an influence on access to services. Services were mostly rendered to the socio-economic class that could afford it. The research findings of a study by Hollow, Oakley, Kurinczuk, Brockklehurst and Grey (2011:20) concluded that antenatal programmes may be an effective means of intervention to reduce pre-term birth, however they found that antenatal programmes were not accessible to all expecting mothers. Panaretto et al. (2005:519) also highlight the fact that antenatal programmes are not accessible to the whole community. These authors further recommend that this aspect should be addressed, as antenatal programmes are beneficial for mothers and infants. Hollow et al. (2011:20) recommend that more research on antenatal programmes are needed.

## 2.10.2 Antenatal programmes in the South African context

Most of the literature on antenatal programmes within the South-African context that the researcher could access seemed to focus on HIV prevention. Theron (2007:6, 10) developed a programme to reduce prenatal acquired HIV infections. Mnyani, Marinda, Struthers, Gulley, Machepa and McIntyre (2014:55) found that since the South-African government has introduced nurse-initiated and managed antiretroviral care in antenatal programmes in clinics, pregnant women with HIV started their antiretroviral treatment earlier. Although they concluded that the quality of antenatal programmes at clinics needs to be improved, no recommendation was made as to what improvements would be needed (Mnyani et al., 2014:56). Akeke, Oguntibeju and Govender (2011:583-589) explored the perceptions of pregnant women attending antenatal programmes that were aimed at the prevention of mother-child HIV transmission. The authors concluded that sufficient knowledge was gained on how mother-child HIV transmission occurs and how it may be prevented, and they recommended that antenatal programmes should include counselling services for HIV infected mothers (Akeke et al., 2011:588-589).

One study within the South-African context aimed to explore the challenges related to the implementation of basic antenatal care programmes in the eThekwini District

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of Kwazulu-Natal (Ngxongo & Sibiya, 2014:906). The study identified challenges faced by staff as a possible cause for the delay in the implementation of antenatal programmes within the public health care sector. Some of the challenges identified were staff shortages, unavailability of antenatal programme guidelines for staff, and lack of training for staff (Ngxongo & Sibiya, 2014:906).

In the next section, the researcher will provide a brief discussion on the merits of training on attachment as part of antenatal programmes.

### 2.10.3 The inclusion of training on attachment into antenatal programmes

The literature review in this chapter consistently points to the critical role of a secure attachment in a child's life. Research on the effects of secure or insecure attachment provides overwhelming support for the life-long advantages of secure attachment for a person. Secure attachment is associated with positive developmental outcomes such as emotional wellbeing, pro-social behaviour, enhanced cognitive and language skills, independence, self-confidence, and hope (Berk, 2013:440; Bowlby, 1988:167; Hardman, 2012:124; Louw & Louw, 2014:363-364; Sigelman & Rider, 2009:419). Secure attachment has long-term effects which are evident in adulthood and even in old age (Mak et al., 2011:225; Sigelman & Rider, 2009:431, 433). Secure attachment in infancy is thus critical for a person's future psychosocial development (Santrock, 2009:195).

The first attachment in life is usually with the primary caregiver, which is mostly the mother and, as a secure attachment is dependent on the quality of care during infancy, the mother or primary caregiver plays a crucial role in the formation of the attachment bond (Berk, 2013:433; Goldberg, 2014:8; Holmes, 2009:25; Werner et al., 2013:576). Social workers and other professionals could empower mothers for their role in the development of secure mother-infant attachment by providing them with knowledge on attachment and on the importance of sensitive and responsive care.

The infant years are regarded as a sensitive period for the development of attachment, implying that this is an optimal period for fostering mother-infant

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attachment (Santrock, 2009:193-194). Based on her research on the neurodevelopmental aspects of attachment, Jennings (2011:13) indicates that attachment in fact starts developing before birth.

The critical role of secure attachment and the limited time frame in which attachment develops, gave rise to the researcher's opinion that expecting mothers should gain knowledge on the importance of attachment and their role in the development of secure attachment. This opinion is in support of the beliefs of Jennings (2011:89) that educating mothers on attachment should start with pre-birth attachment.

Antenatal programmes are well known interventions that are intended to prepare mothers for the birth and for the care of the infant (Svensson et al., 2007:9). Antenatal programmes could thus serve as a platform to teach mothers about attachment. The goal of the study was to explore the perceptions of presenters of antenatal programme presenters on including training on attachment into these programmes.

## 2.11   CONCLUSION

This chapter presented an overview of attachment and key themes related to it. Aspects such as the development and types or patterns of attachment, factors that could influence the development of attachment, as well as the stability and long-term effects of attachment were discussed. The researcher further focused on antenatal programmes and lastly debated the inclusion of training on attachment into antenatal programmes. The information in this chapter serves as a background to the empirical study. The research methodology, ethical considerations and empirical findings of the study will be presented in Chapter 3.

# CHAPTER 3

# RESEARCH METHODOLOGY AND EMPIRICAL FINDINGS

## 3.1 INTRODUCTION

The goal of this study was to explore and describe the perceptions of antenatal programme presenters with regards to the inclusion of training on attachment into antenatal programmes. Data was collected by means of semi-structured interviews with ten antenatal programme presenters in the Tshwane district. This chapter will focus on the empirical findings of the study.

The research methodology and the ethical considerations for the study will first be presented, followed by the presentation of the empirical findings. The research findings will be presented according to themes and sub-themes identified in the data, and supported with direct quotes and relevant literature.

## 3.2 RESEARCH METHODOLOGY

In this section the research methodology is discussed according to the research approach, type of research, research design, the study population and sampling, data collection and analysis, and the pilot study.

### 3.2.1 Research approach

The research followed a qualitative research approach. The goal of this study was to gain an understanding of the perceptions of antenatal programme presenters with regards to the inclusion of training on attachment in antenatal programmes. Qualitative research is primarily focused on describing and understanding a situation, phenomenon, problem or an event, and is used to gain an understanding of underlying reasons, opinions and motivations (Fouché & Delport, 2011:65). Qualitative research involves exploring people's subjective experiences and discovering what is real for them, with the result that it provides insight into a problem or helps to develop ideas or hypotheses for further research (Willig, 2013:9).

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The qualitative research approach also implies that the topic will be studied in depth in order to attempt to understand human and social phenomena from the perspectives of the participants, rather than focusing on a cause-effect relationship (Terre Blanche, Durrheim & Painter, 2006:272). The objective of qualitative research is to describe and possibly understand and explain events, but never to predict events (Willig, 2013:9).

Qualitative research was appropriate for this study as the goal of the study was to explore and describe antenatal programme presenters' perceptions of attachment as well as their views on the inclusion of training on attachment into antenatal programmes. The approach could therefore contribute to an in-depth exploration of the perceptions of the participants, based on their subjective opinions on the topic.

### 3.2.2  Type of research

The research can be categorised as applied research as the goal of the study was to identify and address a problem in the sphere of social and health sciences (Bless et al., 2013:59; Marlow & Boone, 2005:331). The findings of the research study could provide information on training on attachment as part of antenatal programmes and could inform decisions on the matter. As the type of attachment formed during infancy has a life-long influence on a person's psychosocial functioning, training on attachment as part of antenatal programmes could make a valuable contribution to primary prevention programmes to enhance people's psychosocial well-being.

The research further had an exploratory and a descriptive purpose. Exploratory research was applicable as the researcher wished to gain an understanding of the views of the participants on the topic, while descriptive research was relevant as the researcher aimed to describe the perceptions of the participants on the particular topic (Bless et al., 2013:60-61; Fouché & De Vos, 2011:95-96).

### 3.2.3  Research design

By implementing a case study design, in-depth data could be gathered from the participants about the inclusion of training on attachment into antenatal programmes

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(Brandell & Varkas, 2010:376). The gathering of in-depth data was possible as a case study design allows for a thorough exploration of an individual's perception about a specific topic, but is not always limited to exploring only one individual's perceptions (Brandell & Varkas, 2010:377). A collective case study design was thus the most suitable for this study (Fouché & Schurink, 2011:322). This design provided the researcher with an opportunity to gather information on the perceptions of a number of antenatal programme presenters about including training on attachment into antenatal programmes. Based on the different perceptions provided by the research participants the researcher was able to note patterns and themes that emerged from the collected data (Fouché & Schurink, 2011:320; Willig, 2013:102-103). This analysis and interpretation would allow the researcher to make a tentative hypothesis on the role of attachment training within antenatal programmes (Willig, 2013:103).

### 3.2.4 Study population and sampling

The study population, thus the group about whom the researcher wanted to draw conclusions (Babbie, 2013:115), were presenters of antenatal programmes in Tshwane. During the preliminary exploration of the field, it was determined that the antenatal programmes in Tshwane were presented by trained nurses in collaboration with different hospital groups in the private health sector (Beets, 2015; Strijbis, 2014; Visser, 2015). The researcher utilised purposive sampling to select the participants for the study (Strydom & Delport, 2011:392) with the assistance of antenatal programme presenters who were known to the researcher. These presenters provided prospective participants with an information leaflet on the research (Appendix A). The researcher subsequently contacted programme presenters who indicated their willingness to participate in the research. The following sampling criteria applied to the study:

- The participants should be trained nurses.
- The participants had to have a minimum of three years' experience as a presenter of an antenatal programme.

- The participants had to work as an antenatal programme presenter within the private health sector.
- The participants had to represent different hospital groups in the private health care sector.
- Participants had to work within the geographical area of Tshwane.

As the research was a qualitative study, a small study sample was sufficient (Fouché & Delport, 2011:64). The first 10 antenatal programme presenters who were willing to participate in the study, were recruited as participants.

## 3.2.5  Data collection

Semi-structured interviews were conducted to gather information about the perceptions of antenatal programme presenters on including attachment training in antenatal programmes. Semi-structured interviews were suitable as the researcher wished to obtain a detailed picture of the perceptions of the programme presenters on the topic (Greeff, 2011:353).

A further advantage of semi-structured interviews was that this type of interview allowed for flexibility in the interview (Bless et al., 2013:341). A number of questions relating to the study were formulated for the interview schedule (Appendix B) that guided the researcher in the data collection process (Welman et al., 2012:166). Open-ended questions were formulated in such a manner that it encompassed the focus of the study, and gave participants the opportunity to deviate from the discussion to a certain degree (Isaacs, 2014:320). The freedom to deviate during the interview allowed the participants to provide context and information to take into consideration relating to the research topic (Isaacs, 2014:320). The researcher used the interview schedule as a guideline, and adjusted the interview as necessary (Ary, Jacobs, Gorensen & Walker, 2014:466). The open-ended questions provided the participants the opportunity to share their knowledge and opinions in an in-depth manner (Royse, 2007:183). The interviews were digitally recorded with the permission of the participants, while field notes were made during the interviews and completed immediately after the interviews (Greeff, 2011:359).

The field notes had two components, namely a descriptive component and a reflective component. The descriptive component consisted of a description of the setting, the participant, her reactions and the interpersonal relationship. In the reflective component the researcher made notes about her personal feelings or impressions regarding the interview, comments and discussion. This section dealt with the researcher's own interpretation and was completed after the interviews (Ary et al., 2014:364) and the researcher used these notes in her reflection during the data analysis.

### 3.2.6  Data analysis

The researcher analysed the data based on the recommended guidelines formulated by Bless et al. (2013:342-347) and Schurink et al. (2011:404-418). The process the researcher followed is discussed below.

- Preparation for data collection

Prior to collecting data the researcher prepared the semi-structured interview schedule and prepared for the recording of the interviews. The researcher used field notes and a voice recorder during the interviews (Schurinck et al., 2011:404).

- Data collection and preliminary analysis

The process of data analysis commenced during the interviews, as ideas about data themes already emerged while conducting the interviews (Schurink et al., 2011:405-406). Further analysis of the data was done after the interviews, based on the transcriptions of the interviews and the reflective field notes.

- Immersion in the data

The researcher firstly transcribed the interviews and organised the transcripts into files (Schurink et al., 2011:408). The transcriptions were completed by the researcher for different reasons. Firstly, by transcribing the recorded interviews, the

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researcher was able to develop a better understanding of the participants' perceptions regarding the inclusion of training on attachment into antenatal programmes. Secondly, it allowed the researcher to become acquainted with the text and immersed in the data. Lastly, it was a financially viable option as transcriptions can be costly if outsourced (Bless et al., 2013: 341; Schurink et al., 2011:408).

The researcher repeatedly read the transcripts and the field notes. This process of repeated reading is regarded as "the foundational step in qualitative data analysis" and contributed to a comprehensive understanding of the data (Bless et al., 2013:342).

- Developing and using coding

Coding was used to organise the data and assisted the researcher with the process of selecting themes and drawing conclusions from the data. Coding the data allowed the researcher to ascertain which themes arose repeatedly in the accounts of the participants (Bless et al., 2013:342).

- Developing categories

Once recurring themes were identified, the researcher drew links and connections between the themes. The connecting themes were then grouped together to formulate categories (Schurink et al., 2011:410).

- Using an analytical approach

The final step in the data analysis was to review the different categories that were formulated. This step was accomplished by a reflective process as well as integrating the research data with applicable literature. Finally, a conclusion was drawn related to the objectives of the research and the research question (Bless et al., 2013:347). The writing of the research report formed part of the process of data analysis (Schurink et al., 2011:419).

### 3.2.7 Pilot study

The researcher conducted a pilot study as a small scale study before conducting the main study. The pilot study was conducted to test and finalise the interview schedule (Welman et al., 2012:148). The pilot study involved two antenatal programme presenters who complied with the sampling criteria (refer Table 3.1 below).

**Table 3.1 Biographical profile of the participants in the pilot study**

| Participant | Gender | Hospital/private clinic | Experience in field | Population group |
|---|---|---|---|---|
| Pilot 1 | Female | Private hospital | 6 years | White |
| Pilot 2 | Female | Private hospital | 10 years | White |

The data collected from the interviews with the participants of the pilot study did not form part of the data that was obtained from the participants in the study. Based on the interviews with the participants in the pilot study, the researcher made changes to the interview schedule (Strydom & Delport, 2011:394).

### 3.2.8  Trustworthiness

Trustworthiness persuades others that the findings of a study are worth taking into account. Trustworthiness is based on four concepts, namely credibility, transferability, dependability, and conformability (Bless et al., 2013:236-238).

Credibility is similar to the concept of internal validity in that it helps to answer the question "How congruent are the findings with reality?" (Shenton, 2004:64). To ensure credibility for this study, the researcher engaged in prolonged exposure to the research material and field of research, verified her interpretations against the raw data and literature, and ensured that peer debriefing and member checking were implemented (Schurink et al., 2011:420). Member checking was implemented during the interviews by clarifying information, if needed, to ensure that the researcher correctly understood the information provided by the participants (Lietz et al,

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2006:454). Peer debriefing was conducted after the interviews in that the researcher discussed her interpretation of the findings with a social work colleague who was not involved in the research study (Lietz et al., 2006:451).

Transferability refers to the extent to which the research results can be applied to other contexts. The researcher made sure to provide data sets and descriptions of the data that are ample in order for other researchers to make judgements about the transferability of the data (Bless et al., 2013:237; Babbie & Mouton, 2001:277). Schurink et al. (2011:420) however indicates that the generalisability of a qualitative study may be problematic. The researcher acknowledged this fact as a limitation of the study (refer Chapter 1, Section 1.6).

Dependability refers to the coherence of the internal process and the way the researcher accounts for changing conditions. It also refers to the fact that the study, if it was to be repeated with the same or similar subjects in the same or similar context, would provide similar findings. The researcher followed the techniques identified to ensure credibility, which should also establish the study's dependability (Schurink et al., 2011:420; Shenton, 2004:64).

Conformability refers to the extent to which the characteristics of the data can be confirmed by others who read or who review the research results (Zhang & Wildemuth, 2005:9). This means that the findings are in fact the product of the data and are not influenced by biases of the researcher (Bless et al., 2013:237; Schurink et al., 2011:421). The researcher made use of reflexivity to constantly be aware of her own perceptions on including attachment training in prenatal programmes, to prevent personal bias from influencing the analysis of the data and presentation of the research findings (Lietz et al., 2006:48). To ensure conformability the researcher further used an audit trail which required that the data collection and data interpretation were well documented (Lietz et al., 2006:450; Shenton, 2004:64).

## 3.3 ETHICAL CONSIDERATIONS

In this section the researcher will discuss the ethical considerations that were adhered to during the research study. Research ethics are intended to protect the rights of persons who become participants in research (Welman et al., 2012:181).

### 3.3.1 Research approval

Prior to commencement of this study, the researcher first obtained ethical clearance from the Research and Ethics Committee of the Faculty of Humanities, University of Pretoria (refer Appendix C). Institutional ethical clearance is aimed at minimising possible risks to research participants and involved that the research proposal was subjected to a process of peer review before the researcher proceeded with the study (Bless et al., 2013:31; Strydom, 2011:127). Permission to conduct interviews with the participants was obtained from the private health settings under whose patronage the participants worked (refer Appendix D).

### 3.3.2 Voluntary participation

Participation in the research was voluntary. Potential participants were provided with an information leaflet pertaining to the research study (Appendix A) which allowed them with an opportunity to decide whether they wanted to take part in the study. Only those who indicated their willingness to participate in the study were approached by the researcher. Prior to the research the participants received information on what their involvement in the research would entail in the form of a letter of informed consent (refer point 3.3.3). The researcher also informed the participants that they had the option to withdraw from the study at any time (Strydom, 2011:116).

### 3.3.3 Informed consent

The researcher provided the participants with adequate information regarding the research. This information was provided in a letter of informed consent (Appendix E) that included an explanation of the purpose of the study, the roles and

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responsibilities of the participants, possible risks, as well as the professional responsibilities of the researcher. The letter of informed consent is a way to formalise voluntary participation and to promote avoidance of harm (Babbie, 2013:34). Subsequently, participants were asked to voluntary agree to participate in the research study (Evans & Rooney, 2008:59; Goodwin, 2010:51; Strydom, 2011:117). Permission was also obtained to make a voice recording of the interviews. In providing detailed information about the study, the researcher ensured that no deception occurred (Bless et al., 2013:34).

### 3.3.4  Privacy, confidentiality and anonymity

The participants' right to privacy was respected by allowing them to determine the extent to which they preferred to share their perceptions on the role of attachment training in antenatal programmes (Strydom, 2011:119). Confidentiality implies that only the researcher was aware of the identity of the participants. The researcher upheld confidentiality and anonymity by not assigning names to the data transcripts, but rather linking data to a numerical system. The participants are also not identifiable in the research report (Bless et al., 2013:32-33). The raw data are securely stored according to the stipulations of the University of Pretoria.

### 3.3.5  Avoidance of harm

It was the researcher's responsibility to protect the research participants against any form of physical or emotional harm (Welman et al., 2012:201). Although the researcher did not foresee any possibility of physical or emotional harm because of the topic that was explored, she nevertheless informed the participants in the letter of informed consent that she would arrange for counselling with a social worker should a participant experience any distress. In the letter of informed consent it was also stated that the participants could withdraw from the study at any time (Strydom, 2011:155). None of the participants had to be referred for counselling and no participants withdrew from the study.

### 3.3.6 Debriefing

Each participant was provided with an opportunity for debriefing after the data collection interviews. Debriefing allowed the participants to discuss their experience of participation in the research and provided the researcher with an opportunity to address any misinterpretation or problems that might have occurred in the process (Babbie, 2013:39; Strydom, 2011:122). The researcher also used the debriefing session to review her assumptions and understanding of the information given by the participants (Dyer, 2006:285).

### 3.3.7 Release or publication of the findings

The researcher has an ethical obligation to report only the truth in the presentation of the research findings (Bless et al., 2013:35; Welman et al., 2012:182). The research report contains all information necessary for readers to understand the research context, the procedures that were followed, as well as the research findings (Evans & Rooney, 2008:69). The research findings are accurately and objectively presented and the use of information from other sources are acknowledged (Strydom, 2011:126; Welman et al., 2012:182). The research report is presented according to standards and criteria as stipulated by the Department of Social Work and Criminology of the University of Pretoria.

### 3.4 EMPIRICAL FINDINGS

The research findings are discussed in this section. A biographical profile of the research participants will be provided, followed by the presentation of the research findings.

### 3.4.1 Biographical profile of the participants

Interviews were conducted with 10 participants who were presenters of antenatal programmes in the district of Tshwane. The biographical details of each participant who participated in the study are provided in Table 3.2 below.

**Table 3.2 Biographical profile of the participants**

| Participants | Gender | Institution | Experience in field | Population group |
|---|---|---|---|---|
| P1 | Female | Private hospital | 12 years | White |
| P2 | Female | Private clinic | 5 years | White |
| P3 | Female | Private hospital | 10 years | White |
| P4 | Female | Private clinic | 8 years | Black |
| P5 | Female | Private clinic | 12 years | White |
| P6 | Female | Private clinic | 7 years | Coloured |
| P7 | Female | Private hospital | 9 years | White |
| P8 | Female | Private clinic | 11 years | White |
| P9 | Female | Private clinic | 13 years | Coloured |
| P10 | Female | Private clinic | 16 years | White |

As indicated in Table 3.2, the participants were all female. They had extensive experience as presenters of antenatal programmes, with between five and sixteen years' experience in their particular field of expertise. All the participants were involved in the private health care setting, mostly in private clinics focusing on antenatal and postnatal care. Three participants worked at a private hospital. The majority of the participants were White, one participant was Black and two were Coloured.

### 3.4.2 Empirical results of the study

The research findings are presented according to main themes and sub-themes which were identified during the data analysis. A summary of the themes and sub-themes is provided in Table 3.3 below.

**Table 3.3: Summary of themes and sub-themes**

| Themes | Sub-themes |
|---|---|
| 1. The development and effects of attachment | 1.1 Attachment starts in utero<br>1.2 Attachment as a long-term relationship<br>1.3 The effect of the attachment pattern on the development of the child |
| 2. Factors influencing attachment | 2.1 The role of post-natal depression<br>2.2 Breastfeeding<br>2.3 Physical contact<br>2.4 Maternal responsiveness<br>2.5 Caesarean section vs natural birth<br>2.6 Role of the father in attachment |
| 3. Inclusion of training on attachment in antenatal programmes | 3.1 Content of current programmes<br>3.2 Feasibility of including information<br>3.3 Development of new programmes<br>3.4 Training of health professionals<br>3.5 Psycho-educational information |

In Table 3.3, it is indicated that three main themes were identified in the data. The themes focused on the participants' views on the development and effects of attachment, factors that influence the development of attachment, and the inclusion of training on attachment in ante-natal programmes. These themes, with the relevant sub-themes, are subsequently discussed.

### 3.4.2.1 Theme 1: The development and effects of attachment

All the participants were aware of the important role of attachment in a person's life. They indicated that attachment already begins to form before birth and is sustained over the lifetime of the person. They were of the opinion that the child's attachment pattern would therefore affect a child throughout his/her life. These aspects are discussed as the three sub-themes in this section.

- **Sub-theme 1.1: Attachment begins in utero**

All the participants indicated that attachment already starts in utero and that expecting mothers can enhance the formation of attachment before the baby's birth. The following excerpts provide examples of the participants' opinions:

> "I believe it starts when you are pregnant … in utero." (Participant 1)

> "Before the baby is born … I think the emotional state of the Mom is really going to determine that there is a good bond between the baby and the mom." (Participant 8)

> "So, for me it starts with the pregnancy … in terms of touching, talking with your child. I see that as also being part of attachment, not just after birth." (Participant 6)

> "… during pregnancy, it is when she talks to the baby, feels the baby in the tummy and playing music for the baby. … being aware of the baby the whole time." (Participant 7)

> "I would say that attachment already starts in the womb. Already as far back as in the womb … Make nice little conversations. Talk in a way that you would talk to that unborn baby as if he is born, as if he is already there. Even the music you listen to … that is also important for attachment. For the baby, too … research shows that the baby can hear that music, can listen to the mommy's voice." (Participant 9)

According to attachment theory, the first two years of a child's life is regarded as a sensitive period for the development of attachment (Berk, 2013:24; Goldberg, 2014:16; Louw & Louw, 2014:133-134). More recently, Jennings (2011:89) indicates that attachment between the mother and child already starts during pregnancy and can be enhanced by the process of bonding before birth. Bonding refers to a mother's feelings and connection to her child (Wittkowski et al., 2007:172). A mother can form an emotional attachment to the baby before birth and the bond with her child will directly influence their attachment relationship (Sigelman & Rider, 2009:411; Wittkowski et al., 2007:172). The responses of the participants are in support of the views of the mentioned authors. Jennings (2011:92-94) recommends neuro-dramatic play to stimulate attachment during pregnancy. This play would include the mother singing songs to and having conversations with her unborn child, practicing yoga, massaging the baby through her stomach, and listening to relaxing

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or rhythmic music. The relationship that the mother forms with the baby starts during pregnancy and Jennings (2011:88) emphasises that the unborn child is "certainly affected by the mother's moods."

The participants were of the opinion that, although attachment between the mother and child starts before birth, this relationship would last over the lifetime of a person. This aspect is discussed in the next sub-theme.

- **Sub-theme 1.2: Attachment as a long-term relationship**

The participants were of the opinion that the development of attachment is a long-term process that will affect a child for the rest of his/her life. Participants provided the following comments:

> "We tend to see attachment as the hours after birth and I mean there is curtail for it. However, attachment can happen till up to three years of age and then from there on to a certain extent from seven years it remains the same." (Participant 2)

> "It is a long-term process; it isn't just for now. … It is important for the rest of one's life … you will have a relationship with your child for the rest of your life." (Participant 7)

> "From in the womb bonding (will last) for ever and ever. You cannot just say up to birth or primary school or high school. Forever and ever there is a special bond between mom and baby." (Participant 9)

The above views of the participants indicate their understanding of the long-term influence of the attachment that forms between a mother and her child. Participant 2 and Participant 7 referred to the fact that attachment is a process that develops over time, however they did not indicate the sensitive period of development in which attachment is likely to develop optimally. In the literature, it is indicated that attachment gradually develops over the first two years of a child's life, while both Bowlby and Ainsworth specifically emphasised the importance of the first year of life for the development of attachment (Ainsworth et al., 2015:23-27; Berk, 2013:429; Eisen & Engler, 2006:10; Goldberg, 2014:17-18; Louw & Louw, 2014:134; Santrock, 2009:1194).

The participants emphasised that mother-infant attachment would continue as a life-long special bond. This view is in line with the opinion of Bowlby (2007:309) who explains that the attachment figure is the person with whom a child will have a long-term emotional bond and whom the child will always attempt to seek out when needing comfort.

In terms of the long-term nature of attachment, the researcher deems it necessary to emphasise the relative stability of attachment patterns. Berk (2013:432) refers to research that highlights the stability of attachment over a person's life-span. These findings correspond with studies conducted by Chopik et al. (2013:171) and Bosmans et al. (2014:239). The findings of the study by Chopik et al. (2013:171-172) indicate that avoidant attachment patterns tended to remain relatively stable, and that an anxious attachment style were noted to persist throughout life, with some changes through the life-span. The findings of a study conducted by Bosmans et al. (2014:239) concur with the aforementioned, and indicate a relative stability in attachment patterns during middle childhood.

However, it is important to note that the attachment pattern that was formed during infancy may well change later in a child's life. Berk (2013:432, 441) and Sigelman and Rider (2009:420) indicate that exposure to favourable caregiving and socio-economic environments could change insecure attachments into more secure attachments. However, the opposite also holds true and negative circumstances in later childhood could result in secure attachments changing to more insecure attachments.

The participants were aware of the fact that the attachment patterns that children formed, could affect their future development. This aspect is discussed in the following sub-theme.

- **Sub-theme 1.3: The effects of the attachment pattern on the development of the child**

The participants indicated that the various attachment styles or patterns will affect a child's development in different ways. The following excerpts demonstrate the views of some of the participants:

> "I think a good bond is the thing that gives someone compassion for other people and the ability to form relationships with other people. So, I think if you can attach to your child and have a secure relationship it is going to benefit him in his workplace one day, in his marriage, as a parent, in relationships with other people, and in how he sees himself." (Participant 2)

> "Children with a poor attachment will have difficulties with adjustment in school, keeping up with school. So, I think their stress levels are potentially higher. They will struggle to cope with the intensity of school because they can't manage the internal stress. Later, (they will) potentially struggle with relationships." (Participant 4)

> "Positive right through. He will be positively attached to everything in life. Love, security … that Maslow's hierarchy … from the bottom all the way to the top there is a positive (development)." (Participant 9)

> "Emotional stability will also come from attachment. Because of this emotional stability, the child will have more self-confidence at the end of the day. The child will excel in life." (Participant 10)

The above mentioned responses are in accordance with literature that indicates the positive long-term effects of secure attachment. The long-term effects of attachment can be linked to the concept of the internal working model, which refers to the cognitive schemas that are formed based on the attachment pattern formed during infancy and is internalised as a life-long belief about the self, others and the world (Ainsworth, 1967:430; Berk, 2013:430; Bowlby, 1980:128). As indicated by the participants, a secure attachment pattern can benefit a person during childhood and in adulthood.

Recent studies support the positive effects of secure attachment over the life-span. Research indicates that children who formed a secure attachment during infancy where more cheerful, cooperative, emphatic and less aggressive during middle childhood, and had higher self-esteem and showed better performance in cognitive

tasks than children with insecure attachment (Berk, 2013:440; Hardman, 2012:124). These findings support the findings of Bowlby (1988:167) who indicated that primary school children with a secure attachment are more confident and hopeful as opposed to children with an insecure attachment pattern. The positive effects of a secure attachment were found to last into adolescence, manifesting as good social, emotional and behavioural abilities, and higher levels of autonomy (Louw & Louw, 2014:363-364; Sigelman & Rider, 2009:426). Similar positive effects have been found during adulthood, evident in factors such as positive interpersonal relationships during adulthood and an enhanced capacity for caregiving (Mak et al., 2011:225; Sigelman & Rider, 2009:431, 433).

The second main theme identified during data analysis, related to factors that could influence the development of attachment. This theme is discussed next.

### 3.4.2.2 Theme 2: Factors influencing attachment

All the participants were aware of favourable and/or adverse factors that could influence attachment. The participants linked post-natal depression, breastfeeding, physical contact, maternal responsiveness, and Caesarean section versus natural birth to these factors. They also referred to the role of the father in attachment. These aspects are discussed as the sub-themes in this section.

- **Sub-theme 2.1: The role of post-natal depression**

The role of post-natal depression and how it will influence attachment was a factor raised by all the participants. The following quotes are examples of their views:

> "Lots of moms go through post-natal depression and … they also have a problem with attachment." (Participant 1)

> "A negative attachment can be (because of) a mom with post-natal depression .... Because moms tend to read all these magazines and they see these pictures with a mommy with a happy, content baby sitting in a rocking chair. And then when this baby is born it is really a rude awakening … she is sleep deprived, tired. The baby cries and she doesn't understand the baby's language ... The moment moms start thinking 'Babies don't like me' they will start ignoring the baby they will

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even neglect this little baby. And it is terrible, because if a mom closes down emotionally you will definitely see it in a baby." (Participant 5)

"Baby blues ... You know, 'I can't bond with the baby and I feel guilty about that.'" (Participant 8)

The above responses are in agreement with the statement by Louw and Louw (2014:136) that mental health problems experienced by the mother, such as post-partum depression, can have a negative influence on the development of mother-infant attachment. Research indicates that there is an association between post-natal depression and poor mother-infant attachment (Alhusen et al., 2013:526; O'Higgens et al., 2013: 389). There is a positive association between secure attachment and a caregiver who is friendly, supportive, playful, affectionate, and helpful, as these caregivers appear to be more responsive and sensitive to the needs of their babies (Louw & Louw, 2014:135). A caregiver with post-natal depression will find it difficult to be responsive and sensitive to the infant (Sigelman & Rider, 2009:414). Alhsuen et al. (2013:527) believe there should thus be an emphasis on assessing a mother's psychological well-being and attachment style already during pregnancy in order to provide early intervention services to at-risk mothers.

- **Sub-theme 2.2: Breastfeeding and attachment**

Some of the participants pointed out the importance of breastfeeding for the formation of secure attachment. The following quotes portray their views:

"Obviously breastfeeding is massive, because it forces the mom to be present with the baby." (Participant 4)

"... while a mommy is breastfeeding. I prefer mommies to undress, she undresses herself ...  Even while breastfeeding, while that little baby lies skin to skin and we actually mimic the uterus position … the mom's strokes … and the baby feels touched." (Participant 5)

"... the more they breastfeed the more it will improve the bonding between them." (Participant 7)

"The moment the baby is born then we start with bonding with skin to skin contact, breast feeding." (Participant 8)

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The above responses are in support of a study conducted by Britton, Britton and Gronwaldt (2006:1443). These authors concluded that there is link between secure attachment and breastfeeding. However, Louw and Louw (2014:95) point out that claims that breastfed babies will experience psychological advantages, such as a higher sense of security, have not been proved. Berk (2013:195) also refers to studies that found that mothers who breastfeed are not more attached to their babies, and found no difference in the emotional adjustment between babies who were breastfed or bottle-fed. Sigelman and Rider (2009:411) assert that some studies indicate that skin-to-skin contact between new-born babies and their mothers promotes a special mother-infant bond and sensitive parenting by the mother. However, strong mother-infant attachment can develop even without such early contact.

- **Sub-theme 2.3: Physical contact**

Physical contact between the mother and the baby was also seen as an important factor that will influence attachment. In this regard, the participants expressed the following views:

> "... the more they (mothers) handle the baby the more they love and cuddle the baby. The more they are there, the bond becomes stronger." (Participant 1)

> "… by skin-to-skin contact, breastfeeding, co-sleeping and umm, baby massage, she really can attach with that baby." (Participant 2)

> "So, lots of skin-to-skin (contact), so any parents who are struggling with feeding or whatever, skin-to-skin is probably a first base tool that we use, and that again facilitates bonding and it also helps them learn the infant's cues, so that they can respond more naturally." (Participant 4)

> "Smelling, touching. 'I feel the warmth of my mother's skin. I hear my mom's voice; I hear the heart beat on the chest … I hear my daddy's voice.' That is all part of attachment for me." (Participant 5)

> "Attachment is (supported by) physical contact that the mother has with the baby after birth." (Participant 7)

> "… it is now focused on as much physical contact, with the slings that you carry and hold your baby." (Participant 8)

"To me it is that quality time, that quality care. Attachment is personal touch, skin-to-skin." (Participant 9)

The attachment behaviour of the infant is aimed at attaining proximity to the caregiver and to elicit interaction with the caregiver (Bowlby, 1980:39; Johnson, 2013:17). Babies are seen as biologically inclined to elicit the responsiveness of the caregiver (Santrock, 2009:193). Louw and Louw (2014:135) indicate that the infant's efforts to gain responses from the caregiver are seen as successful when the mother responds with warmth and physical contact. The participants' suggestions that physical contact between the mother and baby will support the formation of secure attachment are reflected in the themes identified in literature.

## Sub-theme 2.4: Maternal responsiveness

The participants were of the opinion that maternal responsiveness is a key factor for a secure attachment between a mother and infant. The following quotes demonstrate the opinions of the participants on this aspect:

> "There is nothing wrong with rocking a baby or letting a baby suck for comfort, with just being in tune with your child." (Participant 2)

> "... they think that is a hungry cry … so follow through on it and let's see if it is a hungry cry. You know that sort of thing and then they gain more confidence in their mothering and that is what a lot of moms need." (Participant 4)

> "I am a big advocate of (responding to the baby), certainly throughout the formative years … to answer the baby's needs. I am not an advocate of letting your baby cry. (Answering the baby's needs) won't spoil your baby." (Participant 6)

A secure attachment develops when the mother or primary caregiver is consistently responsive and sensitive to the physical and emotional needs of the child (Bowlby, 1988:123, Meredith, 2009:285). The key features of an attachment relationship indicate that both the primary caregiver and infant are actively involved in forming this relationship. At birth infants are predisposed to attempt to attain proximity to a caregiver and to interact with others (Bowlby 1980:39; Johnson, 2013:17). These attempts manifest as attachment behaviours such as crying, smiling, looking or

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clinging, which are aimed at obtaining physical contact and a warm, delightful response from the mother (Louw & Louw, 2014:135; Santrock, 2009:193). Holmes (1993:9) refers to the sensitive responsiveness of a mother to the infant's behaviour and emotions, as attunement between the mother and infant. The mother's sensitivity is characterised by being aware of and responding appropriately, consistently and timely to the needs of the infant, and is one of the most important elements underlying the formation of a secure attachment (Johnson, 2013:18). The participants were well aware of the importance of sensitive caregiving for the development of mother-infant attachment. Some participants highlighted that new mothers are often unsure of whether to respond every time a baby seems to express discomfort, for example through crying, which could affect their responsiveness to their infant's needs.

- **Sub-theme 2.5: Caesarean section versus natural birth**

The participants were of the opinion that natural birth will have a more positive effect on the development of attachment than a Caesarean birth. The following opinions were expressed in this regard:

> "That is often what happens in the hospitals these days with so many Caesarean babies. That first golden hour that we always talk about …
> It will even start there (at birth), and if that is disrupted then we do get a problem with bonding." (Participant 5)

> "It is so bizarre, that natural birth is an alternative choice in South Africa. … in South Africa 80% of women in the private sector will have a Caesarean and probably 15% of them, if they don't have a Caesarean, will have an intervention birth in the form of an epidural, instrument birth, some form of intervention. … and only about 5% in the hospital will have a true natural birth.  And generally, it is luck of the draw, because they have arrived late that they are too far dilated. ... And there are too many women out there that have had negative birth experiences and it is so bizarre how many children are diagnosed with ADD and poor attachment." (Participant 6)

> "The baby that does 'breast crawling' … that is amazing! It has a lot to do with bonding I think. … If the baby is born with a Caesarean you can still do the nine instinctive steps, even if it is delayed, still try and do that." (Participant 8)

Louw and Louw (2014:81) indicate that the prevalence of Caesarean births in South Africa is between 15% and 80%, and refer to a study by Jordaan (2012) in which some medical schemes in the country reported that on average, 75% of births were by Caesarean section. It transpires that the view of Participant 6 on the high prevalence of births by Caesarean section in South Africa is a reasonable reflection of the actual situation.

The topic of the possible advantages and risks involved in natural versus Caesarean birth appears to be controversial (Santrock, 2009:98; Sigelman & Rider, 2009:111). In a study by Bukatko and Daehler (2012 in Louw & Louw, 2014:82) it was found that the type of birth did not affect the quality of the mother-infant interaction, nor the infant's psychosocial functioning. However, Van der Hurk (2015:10) refers to studies that point to a possible influence of Caesarian birth on mother-infant attachment. Based on the findings of her study, she states the following: "The children born by a caesarean section seem to be more anxious-ambivalent attached to their mother, compared to children born by a vaginal delivery. The effect of type of delivery on total insecure attachment, avoidant attachment and disorganized attachment of the child to its mother was not significant" (Van den Hurk, 2015:10). However, due to the small study sample, the mentioned author recommends further research on the topic.

**Sub-theme 2.6: Role of the father in attachment**

The importance of the role of the father was also highlighted by some participants in this study. The following quotes illustrate the participants' opinions:

> "A dad also needs to bond with his baby.... He needs to bath the baby so he can also bond with the baby." (Participant 1)

> "If the staff is busy with the mom, they would ordinarily take the baby away, then do skin to skin (contact) with the dad." (Participant 4)

> "Where the baby can't be with the mom, we make sure the baby stays with the dad." (Participant 6)

> "Dad as well … Remember, it is not only the mom that is bonding, it is the dad as well." (Participant 8)

"'Daddy, you are not excluded. In this whole process, you are included. So, if mommy is in the bath, you are there. Even if you just pick him up, talk to him.' He (the father) is part (of the child's care) right through." (Participant 9)

The above responses highlight the participants' views on the importance of the father in the attachment formed by the child. A father should be involved not only in his interaction with the child, but in his support of the mother, when needed. The primary attachment is usually formed between the infant and the mother, as the person that assumes the role of the primary caregiver of the infant (Siegel & Hartzell, 2014:105). When the attachment with the primary attachment figure is established, the child starts to form attachments with secondary attachment figures. A father who is actively involved in parenting the child, is likely to be a secondary attachment figure for the child (Siegel & Hartzell, 2014:105). Father-infant attachment usually develops through play and a sensitive and supportive father will promote the development of secure attachment with the child (Berk, 2013:437). Berk (2013:437) indicates that by the age of two, infants tend to seek comfort and proximity from both parents equally. The participants were aware of the importance of promoting the active involvement of the father in the development of a secure attachment with the child.

The third theme obtained in the data is directly related to the research question of the study, namely the perceptions of antenatal programme presenters on including training on attachment into antenatal programmes. This theme and the relevant sub-themes are discussed in the following section.

### 3.4.2.3 Theme 3: The inclusion of training on attachment into antenatal programmes

Based on the goal of the research, Theme 3 formed a central theme in the data. Sub-themes which arose repeatedly in the interviews with the participants were related to the content of current programmes, the relevance of including training on attachment into antenatal programmes, the feasibility of such a step, the development of new programmes, training of professionals, and the inclusion of psycho-educational content into antenatal programmes.

- **Sub-theme 3.1: Content of current antenatal programmes**

Some of the participants indicated that aspects related to attachment were integrated into the antenatal programmes that they presented. They mentioned that, although information on attachment formed part of their existing antenatal programmes, it was not presented as a specific theme, but were part of discussions on other topics, or was presented by another person that was not an antenatal programme presenter. However, most of the participants indicated that information on attachment was not included in the courses they presented or were familiar with. Participants' opinions are presented in the following quotes:

> "I integrate it. I have a DVD and I show it to them … on breastfeeding. So, together with the breastfeeding DVD we talk a lot about bonding." (Participant 1)

> "I would say I specifically work it in with many different concepts. Umm, you know like with baby bathing. That touch, massaging and handling ... it is integrated in all my classes" (Participant 7)

> "In hospitals, even private hospitals, the antenatal classes are insufficient. They do a (programme on a) Saturday for four hours and then they think they can prepare a parent in four hours. In government (hospitals) it is non-existent. So, if you do not do a proper course where you include all these things (information on attachment) then it does not happen. I don't say everyone, but generally it doesn't. In private practice, there are people who give good classes and integrate attachment, but in the hospitals, I would not say it is good." (Participant 7)

> "Not as attachment. We talk more about involvement. You need to be involved, you need to be a support. You know I use those words, rather than attachment." (Participant 9)

> "It is not incorporated at all. The person that does come and talk on attachment is doing it for own financial benefit. This person presents it in five minutes to the parents … tells them what they can do and then the parents have to buy a programme. So, it can be a very good thing to incorporate attachment in more detail into antenatal programmes. Then you reach the parents early in pregnancy." (Participant 10)

The above responses indicate that the topic of mother-infant attachment did not receive specific attention in the participants' existing programmes. The aspects that some participants indicated as attachment seemed to focus on breastfeeding,

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bathing and physical touch. It seems that none of the programmes included specific information related to the mother's role in the formation of attachment (Sigelman & Rider, 2009:411), the development of attachment or on the sensitive period for the development of attachment (Berk, 2013:24; Goldberg, 2014:16; Louw & Louw, 2014:133-134). Other participants indicated that no information on attachment was incorporated into the existing antenatal programmes.

In the literature search for the study, the researcher found that existing antenatal programmes in the South African context that were described in the literature, seemed to focus strongly on topics related to HIV and AIDS (c.f. Akeke et al., 2011; Mnyani et al., 2014; Theron, 2007). No information was found on antenatal programmes focusing on mother-infant attachment. However, all the participants were in support of including training on attachment into antenatal programmes, as indicated in the next sub-theme.

**Sub-theme 3.2: Feasibility of including training on attachment into antenatal programmes**

All the participants were in favour of including information on attachment into antenatal programmes and were of the opinion that it would be a feasible option. The following quotes provide examples of their perceptions on the matter:

> "I think it must be in an antenatal programme. … that (information) is what parents really need with their children." (Participant 2)

> "I think it would be great actually. We could have a better bond between mom and baby, especially from the beginning. I think that would help with colic babies, who tend to suffer from colic and cramps and things like that. I think it will make a big change and help with that." (Participant 3)

> "Yes, I think so. We need to make parents aware of the positive side of attachment. Because parents can do the wrong thing, because they just don't know." (Participant 10)

As indicated in the above responses, participants were positive about the inclusion of training on attachment into antenatal programmes. They highlighted the need for parents to have knowledge on attachment as parents may not be aware of the

importance thereof. It is widely acknowledged that secure attachment has numerous advantages for the developing child. The participants in this study were aware of the importance of secure attachment (refer sub-themes 1.2 and 1.3).

In the literature it is described that the quality of attachment will have a long-term effect on the child's holistic development, including the child's cognitive, social, emotional and behavioural development (Steele et al., 2014:2256; Werner et al., 2013:576). The mother or primary care-giver plays a crucial role in the formation of the mother-child attachment bond, as the formation of a positive, secure attachment is dependent on the quality of care during infancy (Berk, 2013:433). A mother's sensitivity to her infant is seen as one of the most important factors in the development of secure attachment (Johnson, 2013:18). As indicated by Participant 10, mothers may not have knowledge about attachment and therefore need to be informed on the importance of attachment so that they do not "do the wrong thing."

Participant 3 further emphasised that parents should have this knowledge already "from the beginning." This suggestion is important, seeing that infancy is the most important time, or the sensitive period, in which attachment develops (Berk, 2013:24, 428). Jennings (2011:89) is of the opinion that mother-infant attachment starts before birth. Given the mentioned facts, it would be beneficial for mothers to gain knowledge about attachment already during pregnancy. Information could focus on aspects such as the importance of attachment, including pre-birth attachment, caregiver attunement, and the quality of care during infancy (Holmes, 1993:9; Jennings, 2011:89; Sigelman & Rider, 2009:411). As indicated by the participants, it would be feasible to include training on attachment into antenatal programmes. Some participants indicated that it would require the development of new programmes.

- **Sub-theme 3.4:  Development of new programmes**

Some participants were of the opinion that antenatal programme presenters needed to develop new programmes to include training on mother-infant attachment. The participants indicated that they would either want a separate programme on

attachment or a section that specifically focuses on attachment included into the antenatal programmes. They suggested the following:

> "I think parents will maybe understand the importance of it (attachment) better if you put it in a separate section explaining what attachment is and what harms it and what is good for it and what effect it will have on a child if they don't have it." (Participant 2)

> "Maybe after our interview I can highlight it (in the antenatal programme). Though I did not exclude it, it was in different words. Maybe I can think about it and add it to my presentation as a topic or a 10-minute talk. You made me aware of that." (Participant 8)

> "It (participation in the semi-structured interview) was a nice journey for me. I have learned from this. I will really like to call you, if I may, with my presentation and just ask for ideas. Or even if you can just go through it and say 'Yes, you are on the spot.' … yes, definitely." (Participant 9)

> "I think very few parents realise what attachment is. I think attachment is a new concept in life now. Parents need to be made aware of it … the value of it. I think it is really going to be (included) more into antenatal programmes. I think in a few years' time it will be compulsory to include something like this in the programme." (Participant 10)

Antenatal programmes generally focus on preparing mothers for the birth process and for the physical care of their baby (Svensson et al., 2007:9-10). The above mentioned responses of the participants indicate that they considered different ways in which training on attachment could be included into antenatal programmes. Participant 10 was of the opinion that it could even in future become compulsory to include training on attachment into antenatal programmes. Her opinion is in support of the recommendation by Rackett and Holmes (2010:44) that there should be a greater focus on how to facilitate a positive attachment during the antenatal phase of pregnancy.

Based on a study on antenatal programmes at medical clinics, Mnyani et al. (2014:56) recommended that the quality of these programmes needed to be improved. However, the authors did not indicate what improvements were needed. The information obtained from the participants in the current study suggests that the inclusion of training on attachment could serve to improve antenatal programmes.

The participants further suggested that they themselves would need more knowledge about attachment in order to make changes to the antenatal programmes they present. This aspect is discussed in the next sub-theme.

- **Sub-theme 3.4: Training for all health care professionals**

The participants expressed the wish for further training to develop their knowledge of mother-infant attachment, as is evident from the following quotes:

> "I think it is a matter of education. If you hear a good talk on attachment and what the implications are of it not happening, then you can't help but believing in it." (Participant 2)

> "Nurses are the first contact that the mom and the baby have (with professionals). So, if there is somebody who knows how to teach attachment properly, then it would help them … Especially in antenatal classes and in hospitals … definitely, it would make a difference. So, if hospital staff could be trained on how to do attachment properly it would make a difference. And I think it is definitely feasible." (Participant 3)

> "Very important, I think there is a very big scope for that. Umm, I think especially … when we have our child birth educators' forum, that is once every three months, but we go for a whole day for training … maybe consider to give training at one of those days." (Participant 5)

> "I think training should definitely be given to the antenatal educators and the people doing the antenatal classes, so that they can start incorporating it in their antenatal classes." (Participant 6)

> "I would never ever say 'no thank you' for training, because nobody can take knowledge away from you. Yes, I would love to have more training on that (attachment)." (Participant 9)

> "I would love to learn more on this (attachment). Definitely. I would then include it into my antenatal classes and continue with it to an extent here at the hospital. To reach them here … because not all the parents attend antenatal classes. So, there must be a way to help form attachment post natal as well." (Participant 10)

This sub-theme indicates that the participants, as trained nurses who are presenters of antenatal programmes, experienced a need for further training on attachment. Participants mentioned that this knowledge would make a difference to their work. Participant 3 highlighted the fact that nurses at antenatal clinics are usually the first

professionals with whom expecting mothers have contact, while Participant 10 was of the opinion that including training on attachment in antenatal education at hospital clinics could ensure that more mothers are exposed to knowledge on attachment. The researcher regards these points as important, as a study by Ngxongo and Sibiya (2014:906) on the accessibility of antenatal programmes in a district in KwaZulu Natal, identified staff shortages, a lack of guidelines for antenatal programmes and a lack of sufficient training of staff as challenges for the implementation of antenatal programmes.

- **Sub-theme 3.6: Psycho-education on attachment**

Participants recommended that psycho-educational information should be made more widely available to parents and professionals and suggested various forms in which this information could be presented. In this respect, participants suggested the following:

> "If parents have a website that one can for example advise them to go to, because all our people have computers these days. … If they can go and read about it … you can give them a pamphlet … or tell them to read this on the website." (Participant 1)

> "Like I said, I am fairly educated on it (the topic of attachment) and yet some of the stuff that I have read from many books and stuff are almost too up in the air for me. So, if you have it somewhere like at a child birth forum … it is a good platform from where you can build from. They also have a magazine in which you can write (on the topic)." (Participant 4)

> "I think it would be a good idea to write something on attachment and give us some ideas on how to integrate attachment (into antenatal programmes)." (Participant 8)

The participants' suggestions for psycho-education by means of broader platforms such as the internet, pamphlets, magazines, and professional forums, could make information on attachment more accessible to the public. As indicated by Participant 10 in sub-theme 3.5, not all expecting mothers or parents attend antenatal classes. Furthermore, literature indicates that the accessibility of antenatal programmes for expecting mothers is often a problem (Berglund & Lindmark, 200:854; Hollow et al., 2011:20; Panaretto et al., 2005:519). Berglund and Lindmark (2000:854) found

socio-economic status to be one of the reasons for poor access to antenatal care services, as these services were mostly available to persons who could afford them. This point is relevant to the South African context, where the country is characterised by very high levels of poverty (National Planning Commission, 2012:110).

In conclusion, studies indicate that antenatal programmes could benefit mothers and their new-born babies. Svenson et al. (2009:114-125) evaluated a specific antenatal programme and concluded that the programme improved mothers' knowledge on parenting and enhanced maternal self-efficacy. Panaretto et al. (2005:519) suggest that the accessibility of antenatal programmes should be prioritised as these programmes could be beneficial for mothers and infants.

Based on the research findings in this study, the researcher proposes that antenatal programmes provide a relevant platform for providing expecting mothers with training on attachment. Given that infancy is a sensitive period for the development of attachment and that recent research even highlights the prenatal period as important for the development of attachment (cf. Jennings, 2011), including training on attachment into antenatal programmes can be regarded as an appropriate and timely intervention.

## 3.5 CONCLUSION

In Chapter 3, the researcher provided an overview of the research methodology and the ethical considerations that underpinned the study. The empirical findings of the study were presented and discussed. The three main themes in the findings focused on the development and effects of attachment, factors that could influence the development of attachment, and the inclusion of training on attachment in antenatal programmes. The key findings of the study will be summarised in Chapter 4, followed by the conclusions and recommendations based on the key findings of the study.

# CHAPTER 4

## CONCLUSIONS AND RECOMMENDATIONS

### 4.1 INTRODUCTION

Attachment refers to the strong emotional bond with significant people in one's life, that provides one with comfort and joy (Berk, 2013:428). The first attachment in life is usually between a mother and her infant, and infancy is regarded as an optimal period for the development of attachment (Goldberg, 2014:8; Santrock, 2009:193-194). As the quality of attachment affects the child's psychosocial development and functioning (Steele et al., 2014:2256; Werner et al., 2013:576), it is recommended that expecting mothers receive information on the importance and long-term effects of secure attachment (Jennings, 2011:89-90). Antenatal programmes are programmes presented to expecting mothers to provide them with knowledge on the birth process and care of the new-born baby (Svensson et al., 2007:9-10). The researcher was of the opinion that these programmes could thus provide a platform to teach expecting mothers about mother-infant attachment. The goal of this study was to explore and describe the perceptions of antenatal programme presenters with regards to the inclusion of training on attachment into antenatal programmes. In order to achieve the goal of the study, the following objectives were stated:

- To contextualise attachment.
- To describe the role of antenatal programmes.
- To explore and describe the extent to which training on attachment forms part of existing antenatal programmes in the district of Tshwane.
- To explore and describe the perceptions of antenatal programme presenters regarding attachment.
- To explore and describe the perceptions of antenatal programme presenters regarding the inclusion of training on attachment into antenatal programmes.
- To draw conclusions about the feasibility of incorporating training on attachment into antenatal programmes.

The study sample consisted of ten participants who were trained nurses that presented antenatal programmes in the geographical area of Tshwane. In this chapter the key findings, conclusions and recommendations of the study will be discussed.

## 4.2 KEY FINDINGS OF THE STUDY

In this section the researcher will summarise the key findings according to the literature and the data collected.

### 4.2.1 The importance of secure attachment

The findings of the study highlight the importance of the development of a secure attachment pattern during infancy.

- Attachment is the strong emotional bond with significant persons in one's life, with the first attachment in life usually formed between a mother and infant. Infancy is regarded as a sensitive period for the optimal development of attachment. However, recent studies indicate that mother-child attachment already starts to develop during pregnancy.

- Babies instinctively present with attachment behaviours to gain the attention of and proximity to the caregiver. The sensitivity of care and responsiveness of the caregiver will determine whether a secure or insecure attachment develops. The mother or primary caregiver thus plays a critical role in the development of attachment.

- Based on their caregiving experiences, infants develop an internal working model that incorporates cognitive representations of the self, others and the world. The internal working model helps to explain the long-term effects of attachment on the psychosocial development and functioning of the child. Thus, an internal working model based on secure attachment holds advantages for the child's holistic development and functioning, while insecure attachment patterns (i.e. avoidant, ambivalent/resistant and disorganised attachment) will have negative effects on the child's development and functioning later in life.

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- The type of attachment formed during infancy tends to be relatively stable over a person's lifetime. However, new life events can lead to changes in the initial attachment pattern.

- The initial attachment bond is later complemented by secondary attachments with other important people who form part of the child's life, such as the father, grandparents or siblings. By involving the father in parenting tasks, the attachment between the child and the father can be supported from early on.

### 4.2.2 Factors influencing attachment

Different factors have an influence on the type of attachment that is formed during infancy and on how the attachment is maintained over the person's lifetime.

- According to attachment theory, the quality of caregiving is a key determinant of the type of attachment that will be formed. Mothers or caregivers who respond appropriately, consistently and timely to the needs of the infant, contribute to the development of secure attachment. In this regard, the participants in the study highlighted the role of maternal responsiveness, breastfeeding, and physical contact with the baby.

- The literature highlights other factors that could influence the development of attachment, such as the personality, mental health, and internal working model of the caregiver; the personality of the infant; the availability of a consistent caregiver, the working mother, and psychosocial and cultural contexts. In terms of the mental health of the caregiver, the participants highlighted the negative effect that postnatal depression could have on the mother's capacity to provide sensitive and responsive care.

- Participants highlighted factors such as breastfeeding, the type of birth (Caesarean versus natural birth), and the active involvement and support by the father that could influence the attachment bond between the mother and child.

## 4.2.3 Inclusion of training on attachment into antenatal programmes

Antenatal programmes are intended to prepare expecting mothers for childbirth and the care of the young baby.

- The literature indicates that antenatal programmes can play a vital role in improving parents' knowledge on parenting as well as enhancing the self-efficacy of mothers.

- However, access to antenatal programmes could be a challenge especially for parents who live in lower socio-economic circumstances.

- It appears that the availability of antenatal programmes in the public health sector in South Africa is hampered by factors such as staff shortages and a lack of training of staff. Furthermore, it seems that existing antenatal programmes in the South African public health care context focus on physical health issues such as mother-child transmission of HIV and AIDS.

- Existing antenatal programmes presented by the research participants focused mostly on childbirth and neonatal care. Although some information related to attachment was included in the programmes, none of the programmes contained a specific section that focused on attachment.

- Participants were of the opinion that it would be valuable and feasible to include training on attachment into antenatal programmes because of the important role of attachment in a child's development and functioning. The antenatal programmes would then ensure that mothers learn about pre-birth attachment and become aware of infancy as a sensitive period for the development of attachment.

- Participants were eager to adapt their current programmes to include training on attachment into the programmes. However, they were of the opinion that antenatal programme presenters would need in-depth training on attachment to successfully integrate this information into the programmes.

- Participants suggested that psycho-education on attachment should be provided on wider platforms than only in antenatal programmes, for example to other

health care professionals, as not all expecting mothers had access to antenatal programmes.

## 4.3 CONCLUSIONS

Based on the research findings, the following conclusions were reached:

- The development of secure mother-infant attachment can play a critical role in enhancing the development and well-being of children.

- As sensitive caregiving is a key factor in the development of secure attachment, educating parents, especially mothers, about their critical role in this regard can be a valuable intervention to enhance the psychosocial wellbeing of people, from childhood to adulthood.

- The development of mother-infant attachment can be affected by various psychosocial factors, such as the availability and mental health of the mother or primary caregiver, the personality of the infant, socio-economic status and cultural factors.

- Educating mothers, fathers and caregivers about attachment can empower them for their role of parents and/or caregivers and can enhance their ability to support the formation of secure attachment.

- Education on attachment should be presented prior to the birth of a baby, as the development of attachment starts pre-birth, while infancy is a sensitive period for the optimal development of attachment. In this way, information on attachment is presented in a timely manner for utilisation by mothers and caregivers.

- Antenatal programmes that focus on preparing expecting mothers for childbirth and infant care, can provide a valuable platform for the timely education of parents on attachment and their role in the formation of secure attachment.

- Existing antenatal programmes focus mainly on the physical and health aspects of birth and child care, therefore new programmes need to be planned to include training on attachment. For this purpose, antenatal programme presenters should

be trained so that they are knowledgeable on attachment and can effectively include training on attachment into their programmes.

- It should be kept in mind that antenatal programmes are not accessible to all parents, amongst others due to socio-economic challenges and a lack of programmes being offered in the public sector. This aspect can be seen as a limitation in antenatal care.

## 4.4 RECOMMENDATIONS

Based on the research findings and the conclusions, the following recommendations are proposed:

### 4.4.1 Antenatal programmes

- Presenters of antenatal programmes need to develop programmes that include information on mother-infant attachment and the role of the mother, father or primary caregiver in the promotion of secure attachment. Training on attachment in the antenatal phase could serve as primary prevention strategies and prevent the development of psychosocial problems that will need secondary interventions such as attachment therapy or family therapy at a later stage. The researcher suggests that a separate programme or module on attachment should be compiled to ensure that sufficient information on the topic is provided.

- Social workers and antenatal programme presenters should work together to enhance accessibility to antenatal programmes, especially for parents who experience socio-economic challenges. Government and the management bodies of public hospitals and clinics should be included in these efforts.

- Social workers, antenatal programme presenters and relevant service delivery agencies can provide information on mother-infant attachment on electronic platforms. This method can enhance accessibility to information and raise general awareness about different aspects related to attachment.

### 4.4.2 Training of health care professionals

- Antenatal programme presenters should receive extensive training on attachment in order to include this knowledge into the antenatal programmes. Social workers who are knowledgeable on the topic, can present training sessions to the programme presenters.

- Furthermore, social workers can also present seminars to nurses who work in antenatal clinics in the community or in public hospitals. Nurses are often the first level of contact between the expecting mother and the health care system and can refer mothers to relevant antenatal programmes presented in their environment.

### 4.4.3 Future research

- It is recommended that persons in professions such as social work, psychology and nursing, conduct larger scale studies on the inclusion of training on attachment into antenatal programmes. These studies should be done in different geographical areas and with different population groups in order to obtain comprehensive information on the topic.

### 4.5 ACCOMPLISHMENT OF THE GOAL AND OBJECTIVES OF THE STUDY

The accomplishment of the objectives of the study is described in Table 4.1 below.

**Table 4.1: Accomplishment of the objectives of the study**

| Objective | Accomplishment of the objective/s |
|---|---|
| • To contextualise attachment.<br>• To describe the role of antenatal programmes. | In Chapter 2 the researcher provided a literature review to provide the reader with insight on the topic of attachment and antenatal programmes. |
| • To explore and describe the extent to which training on attachment forms part of existing antenatal programmes in the district of Tshwane.<br>• To explore and describe the perceptions of antenatal programme presenters regarding attachment.<br>• To explore and describe the perceptions of antenatal programme presenters regarding the inclusion of training on attachment into antenatal programmes. | In Chapter 3 the researcher provided the empirical findings of the study in the form of main themes and sub-themes that address these three objectives. |
| • To draw conclusions about the feasibility of incorporating training on attachment into antenatal programmes. | Based on the research findings, the researcher presented conclusions regarding the inclusion of training on attachment into antenatal programmes. |

Based on the achievement of the objectives of the study, it is concluded that the goal of the study was achieved and the research question answered.

## 4.6 CONCLUDING STATEMENT

This study posits that antenatal programmes are implemented to prepare expecting mothers and parents for the birth process and care of the new-born child. Attachment, whether secure or insecure, can have long-term effects on the development and functioning of the child. Seeing that attachment commences before birth and is established during infancy, including training on attachment into antenatal programmes can enhance the formation of secure attachment, which would be beneficial for both the parents and the child. The promising findings of the study suggest that the topic should be followed up in practice and in larger research studies.

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# APPENDIX A

**Researcher:**     Zoe Lubbe

**Contact details:**     0794982668

**RESEARCH STUDY**

**TRAINING ON ATTACHMENT AS PART OF ANTENATAL PROGRAMMES: THE PERCEPTIONS OF ANTENATAL PROGRAMME PRESENTERS**

**Background information**

Attachment is a component of social relationships, where a vulnerable individual relies on a powerful individual for protection and security (Goldberg, 2014:9). Each individual in this social relationship forms an emotional bond to the other, and also forms an internalised perception of relationships that forms the basis of all future relationships in his/her life (Berk, 2013:430).

Parents are significant role players in a child's immediate environment and development (Benokraitis, 2008:347). Parents who provide children with a secure warm environment, being responsive to the children's needs, seem to foster healthy development in their children and a secure attachment bond between them (Papilia, Olds & Feldman, 2008:236). Children from a responsive and secure environment will most likely have the confidence to make contact with the social world as adults, because they were not rejected when displaying their needs to their parents during infancy (Papilia et al., 2008:228).

The first infant-care-giver attachment is usually with the mother (Holmes, 2009:25). This attachment is the foundation for future interaction with others, as well as for the way the child perceives the world and the self (Li & Zheng, 2014:1258). Therefore, the attachment formed between an infant and its care-giver has the potential to influence the child's development (Steele, Waters, Boast, Vaughn, Truitt, Waters, Booth-LaForce & Roisman, 2014:2526).

Given that the mother plays a crucial role in the formation of attachment (Louw & Louw, 2007:131), interventions should be aimed at the parents and especially on the mother. As the first year of a child's life is a significant period for the development of attachment, it is suitable to focus interventions on the time before birth, thus the pre- or antenatal period (Berk, 2013:433). Antenatal programmes have the goal of preparing mothers for the birth

process and for the physical and nutritional care of the new-born baby. These programmes could therefore provide an opportunity for educating mothers about the importance of secure attachment and of their role in the development of secure attachment. As there is limited research on this specific aspect, the researcher identified the following research question: What are the perceptions of antenatal programme presenters on including training on attachment in antenatal programmes?

The goal of the study is thus to explore and describe the perceptions of antenatal programme presenters with regards to the inclusion of training on attachment in antenatal programmes.

The objectives of the study are:

- To contextualise attachment.
- To describe the role of antenatal programmes.
- To explore and describe the extent to which training on attachment forms part of existing antenatal programmes in the district of Tshwane.
- To explore and describe the perceptions of antenatal programme presenters regarding attachment.
- To explore and describe the perceptions of antenatal programme presenters regarding the inclusion of training on attachment into antenatal programmes.
- To draw conclusions about the feasibility of incorporating training on attachment into antenatal programmes.

Z. Lubbe

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Li, X. & Zheng, X. 2014. Adult attachment orientations and subjective well-being: Emotional intelligence and self-esteem and moderators. Social Behaviour and Personality, 42(8):1257-1266.

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Steele, R., Waters, E., Boast, K., Vaughn, B., Truitt, W., Waters, H., Booth-LaForce, C. &Roisman, G. 2014. Caregiving antecedent of Secure Base Script Knowledge: A Comparative analysis of young Adult Attachment Representations. Developmental Psychology, 50(11):2526-2538.

# APPENDIX B

**TRAINING ON ATTACHMENT AS PART OF ANTENATAL PROGRAMMES: THE PERCEPTIONS OF ANTENATAL PROGRAMME PRESENTERS**

**INTERVIEW SCHEDULE**

1.  How would you describe the concept "attachment"?

2.  What is your view on the importance of attachment?

3.  What would you say is the purpose of antenatal programmes?

4.  To what extent does training on attachment form part of the antenatal programme that you present?

5.  What is your opinion about the inclusion of training on attachment in antennal programmes?

6.  Do you think it is feasible to include on attachment in antenatal programmes? Motivate your answer.

7.  Do you think it would be valuable to receive training on the topic of attachment?

# APPENDIX C

Faculty of Humanities
Research Ethics Committee

5 October 2015

Dear Prof Lombard

| | |
|---|---|
| **Project:** | **Training on attachment as part of antenatal programmes: the perception of antenatal programme presenters** |
| **Researcher:** | **Z Lubbe** |
| **Supervisor:** | **Dr MP le Roux** |
| **Department:** | **Social Work and Criminology** |
| **Reference number:** | **27100953 (GW20150908HS)** |

Thank you for the **well written** application that was submitted for ethical consideration.

I am pleased to inform you that the above application was **approved** by the **Research Ethics Committee** on 1 October 2015. Data collection may therefore commence.

Please note that this approval is based on the assumption that the research will be carried out along the lines laid out in the proposal. Should the actual research depart significantly from the proposed research, it will be necessary to apply for a new research approval and ethical clearance.

The Committee requests you to convey this approval to the researcher.

We wish you success with the project.

Sincerely

**Prof Karen Harris**
**Acting Chair: Research Ethics Committee**
**Faculty of Humanities**
**UNIVERSITY OF PRETORIA**
**e-mail:Karen.harris@up.ac.za**

Kindly note that your original signed approval certificate will be sent to your supervisor via the Head of Department. Please liaise with your supervisor.

Research Ethics Committee Members:  Prof KL Harris(Acting Chair); Dr L Blokland; Dr JEH Grobler; Ms H Klopper;  Dr C Panebianco-Warrens; Dr C Puttergill; Prof GM Spies; Dr Y Spies; Prof E Taljard; Ms KT Andrew (Committee Admin), Mr V Sithole (Committee Admin)

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# APPENDIX D

**Sr Maryna Botha** BCur (Pret.)

Dipl. Community Health Nursing

P.O. Box 38562

Garsfontein

0060

Tel : (012) 998 7023

Fax: (012) 9932634

Practice No. 8808872

Section 22A9159 GP00020/05/N

Sr Maryna Botha.

Dear Madam,
Permission to conduct research: Training on attachment as part of antenatal programmes: the perceptions of antenatal programme presenters.

I have read the information leaflet about the proposed study, and hereby give permission that Ms Zoe Lubbe may conduct the research at our institution.
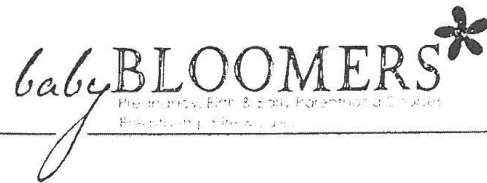
Sincerely
Maryna Botha
Sr. Registered nurse.

Sr Anchen Verster
Reg Nurse & Midwife
Practice No: 088 000 043 1214
Tel: 072 578 9279
anchen.verster@gmail.com

*baby*BLOOMERS

Consent letter                                                21 August 2015

Dear Sir/Madam

**Permission to conduct research: Training on attachment as part of antenatal programmes: the perceptions of antenatal programme presenters**

I have read the information leaflet about the proposed study, and hereby give permission that Ms Zoe Lubbe may conduct the research at our institution.

Sincerely

Anchen Verster
072 578 9279
*Registered Nurse/ Midwife (B.Nur UCT)*
*SA Certified Childbirth Educator (Wits)*
*Breastfeeding Advisor (Instruction hours Mowbray Maternity)*
*Coordinator of Pretoria Childbirth Forum*

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Netcare Unitas Hospital

Tel: +27 (0) 12 677 8000
Fax: +27 (0) 12 664 6225
Clifton Avenue, Lyttelton, Centurion, South Africa
PO Box 15123, Lyttelton, Centurion, 0140, South Africa
www.netcare.co.za

Date:   12 August 2015

**CONCENT LETTER:  PERMISSION TO CONDUCT RESEARCH**

Dear Sir/Madam

I have read the information leaflet, received, about the proposed study, and hereby give permission that Ms Zoe Lubbe may conduct the research at our institution.

Kind regards.

**RITA FOURIE**
(Registered Nurse:  Coordinator)

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MEDICLINIC
EXPERTISE YOU CAN TRUST.

511 Jochemus str
Erasmuskloof
Pretoria
0045

Tel: 012-3674060

Consent letter

Sister Lucille Bam (Senior Professional Nurse)

KLOOF MEDICLINIC

Dear Sir/Madam

**Permission to conduct research: Training on attachment as part of antenatal programmes: the perceptions of antenatal programme presenters**

I have read the information leaflet about the proposed study, and hereby give permission that Ms Zoe Lubbe may conduct the research at our institution.

Sincerely

Sr L Bam

Senior Professional Nurse

# APPENDIX E

Faculty of Humanities

| | |
|---|---|
| **Researcher:** | **Zoe Lubbe** |
| **Degree:** | **Master of Social Work (Play Therapy)** |
| **Contact details:** | **0794982668** |

## INFORMED CONSENT: PARTICIPANT

**Name of participant:** …………………………………………...

1. **Title of the study**
   Training on attachment as part of antenatal programmes: The perceptions of antenatal programme presenters.

2. **Purpose of the study**
   The purpose of the study is to explore and describe the perceptions of antenatal programme presenters with regards to the inclusion of training on attachment in antenatal programmes.

3. **Procedures**
   I will be requested to take part in a face-to-face interview with the researcher, Ms Zoe Lubbe. The interview will last approximately 45 to 60 minutes and will be digitally recorded for the researcher to capture information correctly. The interview will focus on my views about the inclusion of information on attachment in antenatal programmes. All information will be handled confidentially and the recording and notes made by Ms Lubbe will be stored securely at the Department of Social Work and Criminology at the University of Pretoria.

4. **Risk factors**
   There are no risks foreseen in my participation in the research, as the interview will focus on my views on the topic. If at any time I may experience emotional distress because of the interview, I can be referred for counselling to a registered social worker, Mrs Y Singleton.

Department of Social Work & Criminology
University of Pretoria, Private Bag X20
Hatfield 0028, South Africa
Tel +27 (0)12 420 2325

Fakulteit Geesteswetenskappe
Lefapha la Bomotho

### 5. Benefits of participation
I will not receive any compensation for participating in the study. However, my participation provide valuable information on the above topic that could benefit expecting mothers.

### 6. Rights of the participant
I am aware that I will voluntarily participate in the research study and that I have the right to withdraw from the research at any time without any negative consequences for me.

### 7. Confidentiality
The researcher will record the interviews to accurately collect information. The recordings will be transcribed in a word document. No identifying details will appear on the transcription and only MsLubbe and her supervisor from the University of Pretoria will have access to the transcriptions. My information will be dealt with in a confidential manner, which means that my name and other identifying details will not be mentioned. If the information would be used for further research, the same measures to protect my confidentiality will apply.

In the cases where I have any further questions regarding the research study, I can contact Ms Lubbe the abovementioned telephone number.

I understand my rights as a research participant and give my permission to voluntarily participate in the research study. I understand what the research is about and why it is being done. I also know that the research information will be stored for 15 years at the Department of Social Work and Criminology, University of Pretoria, as stipulated in their policy.

I received a copy of this informed consent letter.

Participant: ...…………………………… Date: …………………………..

Researcher: ……………………………. Date: …………………………….

Faculty of Humanities
Fakulteit Geesteswetenskappe
Lefapha la Bomotho