# Relational requirements of attachment and the well-being of adolescents in the family

by

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# DECLARATION

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I declare that the thesis **Relational requirements of attachment as a basis of meaningful relationships in the family context**, which I hereby submit for the degree PhD Educational Psychology at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution.

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Monica Deirdré van Niekerk

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Date

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# ETHICAL STATEMENT

The author, Monica Deirdré van Niekerk, has obtained, for the research described in the present study, the applicable research ethics approval. I declare that I have observed the ethical standards required in terms of the University of Pretoria's Code of Ethics for research and the Policy Guidelines for responsible research.

 

 

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Monica Deirdré van Niekerk                       Date

# SUMMARY

**Relational requirements of attachment and the well-being of adolescents in the family**

SUPERVISOR:      Prof. Dr. Salomé Human-Vogel

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DEGREE:         PhD (Educational Psychology)

Family attachment is viewed as the bonds between children, adolescents (in the case of this study) and significant others in their household with whom they form close emotional bonds in the process of growing up. This mixed method study explores to what extent the quality of attachment relationships can contribute to the kinds of relationship in families that would promote attachment. Such attachment is regarded as being associated with greater adolescent well-being. The experience of family attachment from the perspective of adolescents and how their perception of their attachment to their families impacts on their sense of well-being is thus explored in this study.

The theoretical framework I chose to investigate the qualities of family relationships is that of Neufeld who describes family relationships in terms of six dimensions, namely (1) proximity, (2) sameness, (3) belonging, (4) significance, (5) feeling loved and (6) being known. These qualities (Neufeld and Maté, 2006) of attachment ascend from the simple to the more complex and were used to develop a new instrument for measuring the extent to which adolescents report specific qualities to be present in their family relationships. Attachment is a developmental process and knowledge about these six dimensions increases our understanding of healthy family attachment relationships.

The participants consisted of urban South African Grade 11 and 12 students between the ages of 16 and 18 who attend the two participating government schools in Pretoria. Convenient multi-stage random sampling was used and permission was obtained from the Gauteng Department of Education, as well as informed consent from the parents and participants. Participation was voluntary and the participants could withdraw from the research at any point. An exploratory sequential design was used in which the qualitative findings in the first phase built towards the quantitative phase, which included the development of a new scale in the second phase (Creswell, 2009). The first qualitative phase of the study was exploratory in nature and data were collected from two participants through semi-structured interviews. The purpose of these

interviews was to explore the participants' experience of the quality of their family relationships. The analysis of the qualitative data entailed the organisation of the data according to themes that identify a specific dimension of Neufeld's attachment model (Neufeld and Maté, 2006). The information gained in the first phase assisted in designing and implementing the second quantitative phase.

The aim of the second quantitative phase was to create an initial item pool, first with a small pilot study (n=26) and then with a larger sample (n=208) in the main study. The initial item pool was subjected to revision by a panel of experts and 72 items were piloted. Internal consistency of the items was established by using Cronbach's alpha coefficient, and construct-related validity was investigated by using convergent validity of the scale. Principal Component Analysis (PCA) with promax rotation was applied in the main study for data reduction and for refining the constructs (DeVellis, 2012; Fabrigar and Wegener, 2012; Jolliffe, 2002; Pallant, 2011). To determine the number of factors that should be retained, multiple extraction criteria were used before making the decision. First, the Kaiser criterion (eigenvalue >1 rule), which suggested retaining factors that were above the eigenvalue of 1, was considered. Another criterion was Cattell's criterion (scree plot) in conjunction with the eigenvalues where the scree plot indicated which factors accounted for most of the variances and thus a larger eigenvalue. A five-factor model seemed to fit the data and was subsequently regarded as the final Family Attachment Scale (FAS). Labelling of the factors followed and reflected the theoretical and conceptual intention of the present study (Fabrigar et al., 2012; Pallant, 2011). A General Linear Model Procedure was followed to examine the extent to which the dependent variable Trait Well-Being Total Score (TWBTS) could determine subjective well-being (DeVellis, 2012; Kaplan et al., 2009). The Trait Well Being Inventory (TWBI) (Dalbert, 1992) was used for validation purposes as it measures 'well-being'. In this way construct-related evidence was obtained for the validity of the FAS since family attachment is theoretically associated with greater well-being.

The findings of the FAS indicated that only Love and Knowledge displayed significant correlational patterns with subjective well-being, as originally expected. Although the quality of family relationships changes with adolescence, the relationship between family members remains of the utmost importance. It was interesting that Belonging did not emerge as a significant factor; this may be because adolescence is a period of development in which young people underestimate their sense of belonging as they seek autonomy. Adolescents seek to develop their own identity and 'belonging' to a family may not necessarily be a priority. I wish to emphasise that the results drawn from the study do not represent the broader population and

are relevant only to adolescents in urban South Africa with intact families. The present study contributes to the existing body of literature on the theory of attachment by providing empirical support for Neufeld's attachment theory (Neufeld et al., 2006), which is described in popular literature. A valid and reliable Family Attachment Scale (FAS) was also developed. Practical contributions of the present study include a better understanding of adolescents' attachment relationships which could aid professionals such as Educational Psychologists, Social Workers and Counsellors when working with adolescents.

**KEY CONCEPTS**

Family attachment, trait well-being, adolescent, love, knowledge, cohesion.

# ACKNOWLEDGEMENTS

# TABLE OF CONTENTS

# APPENDICES

# LIST OF FIGURES

# LIST OF TABLES

# CHAPTER 1
## INTRODUCTION, BACKGROUND, PROBLEM STATEMENT, RATIONALE AND RESEARCH DESIGN

## 1.1.        INTRODUCTION

Scientifically, attachment refers to relationships that are characterised by the search for and preservation of proximity (Hyland, 2010). The Latin for proximity, "*proximare*", means to "draw near" (Collins Concise Dictionary, 2001) and includes emotional, physical and psychological nearness (Neufeld and Maté, 2006).

Traditionally, attachment researchers conceptualised attachment as the relationship between a parent and a child that begins in infancy and persists throughout the child's life, and serves as an "invisible leash" that helps to "keep the child close" (Neufeld et al., 2006, p 65). Bowlby (1980a) describes attachment as the initial emotional bond that forms between an infant and a caregiver, while Ainsworth (1989) states that attachment refers to the quality of the relationships with significant others or a bond with parents. A family is not only a collection of people, but can also be seen as a system in which family interactions occur within the context of subsystems such as spouses, parents and siblings. A family consists of a number of interconnected members whose behaviour (with emotions, actions, thoughts and beliefs) mutually influences each other (Bjarnason, Bendtsen, Arnarsson, Borup, Iannotti, Lofstedt, Haapasalo and Niclasen, 2012; Wagner, 2008).

Attachment theory assumes that a secure attachment allows a child to explore and experience security within a relationship (Ainsworth, 1989; Bowlby, 1980; Waters and Cummings, 2000). It is presumed that children need a sense of security in their lives to become healthy and productive members of society (Hazan and Zeifman, 1999). Traditionally, attachment is explained as a behavioural system that activates when a child is in distress and needs protection and comfort from the primary caregiver (Bowlby, 1980). According to Bowlby (1969, 1982), attachment consists of the following: *proximity seeking*, the desire to be close to the people we are attached to; a *safe haven*, return to the attachment figure for comfort and safety when threatened; a *secure base,* where the attachment figure is a base of security from which the child can explore the surrounding environment; and *separation distress* as the anxiety that occurs in the absence of the attachment figure.

Relatively recently Gordon Neufeld, a psychologist, conceptualised attachment by describing six dimensions of attachment, namely (i) proximity, (ii) sameness, (iii) belonging, (iv) significance, (v) feeling loved and (vi) being known (Neufeld et al., 2006). These authors argue that if affection is withheld, the desired behaviour might be presented, but the development of the child's full potential is prevented. They made a strong case for "parenting in terms of what a parent *is* to a child rather than what a parent *does*" (Neufeld et al., 2006, p 6). Meaningful relationships within the family include experience regarding closeness (proximity), having something in common (sameness), support and integration (belonging), acceptance (significance), support and love (feeling loved) and emotional connection (being known). These dimensions are imperative in forming secure relationships (Neufeld et al., 2006).

In the present study it is accepted that the family is prominent in a person's life and that by examining the emotional closeness between family members, which influences an individual's well-being, social adjustment, interpersonal skills and relationships, the quality of the attachment relationships can be determined. Well-being is described in the literature as the overall perception and evaluation of one's life circumstances and experiences. Therefore the individual's general life satisfaction and emotional evaluation (Elliot, Sedikides, Murayama, Tanaka, Thrash and Mapes, 2012; Elliot, Thrash, and Murayama, 2011; Merz, Consedine, Schulze & Schuengel, 2009) will be investigated in terms of mood level and general life satisfaction (trait well-being).

The aim of my study was therefore to establish whether the six indicators of attachment as defined by Neufeld can be measured and whether they can possibly predict adolescent well-being. The possible prediction is based on the fact that the indicators are theoretically assumed to be reflective of attachment. To test that assumption I hypothesise that the likely predictors should be positively related. Support for this hypothesis is, among others, found in the literature on family cohesion.

The family attachment relationships were thus examined from Neufeld et al., (2006) attachment perspective; the requirements needed to establish secure relationships within the family are explored in Chapter 2, Section 2.6. "Adolescent families" are a type within the family life cycle (Andersson, 2005; Bynner, 2005) where a family consists of at least one adolescent. If one can conceptualise and measure the relational requirements of attachment, one is in an improved position to recognise the development of problems that lead to negative outcomes, such as substance abuse, violence, anxiety and depression (Bailey  and McLaren, 2005; McLaren,

Gomez, Bailey and, Van der Horst, 2007; Waite, Hawkley and Thisted, 2006). The present study will thus measure what are assumed to be the theoretical indicators of family attachment and test whether they will possibly predict adolescent well-being as hypothesised. If successful, the results will serve as construct-related evidence that the measurements do indeed represent indicators of family attachment.

## 1.2.　　　BACKGROUND AND CONTEXT

The family remains central in the lives of human beings and can be seen as a cornerstone of society. The structure and content of families vary around the world; however, in South Africa we have unique circumstances that affect family relationships. The South African Institute of Race Relations (Holborn and Eddy, 2011). reported that South African families and youths experience many challenges as families are affected by poverty, unemployment, crime, HIV/AIDS, absent fathers, illiteracy, domestic violence and gender inequities (Green Paper, 2011; Holborn et al., 2011). The South African Institute of Race Relations (Holborn et al., 2011) concludes that "conventional family life" does not exist for many South African children and that a "typical" child is raised by the mother in a single-parent household. In South Africa only a third of children live with their biological parents and nearly a million children have lost both of their parents (Holborn et al., 2011). Violence and conflict (Bowlby, 1984; Baptist, Thompson, Norton, Hardy and Link, 2012), substance abuse (Mallett, Rosenthal and Keys, 2005; Schindler, Thomasius, Sack, Gemeinhardt, Kustner and Eckert, 2005) and divorce (DeFrain and Asay, 2007; Hughes, 2005) are some of the factors that cause familial breakdown. The lack of communication between family members (DeFrain et al., 2007), limited time spent together as a family (DeFrain et al., 2007; Green and Werner, 1996) and the ability to form healthy attachments to significant others are challenges that families face.

I was thus inspired to perform this study as an Educational Psychologist who works in a school environment as I daily encounter young people who disclose the quality of their relationships with their families to me. I was touched by these adolescents' experiences and how their attachment history shapes their current relationships. Much research has been done about attachment relationships and for many years researchers measured attachment mainly by using Ainsworth (Ainsworth, 1973, 1989) and Bowlby's (Bowlby, 1969/1982) style of attachment. Central to Bowlby and Ainsworth's theory of attachment is the notion that the attachment figure is a secure base for the attached individual and a haven of safety for him or her in times of stress (Ainsworth, Blehar, Walters and Wall, 1978; Bowlby, 1980; Waters et al., 2000). Bowlby

and Ainsworth's attachment theory explained how an experience with the caregiver, mainly the mother, shapes a child's social and personality development. Bowlby and Ainsworth's attachment theory emphasises the importance of proximity seeking between an infant and the primary caregiver, and how significant it is in the studying of attachment. The secure-base phenomenon implies that the caregiver, mostly the mother, is sensitive and attends to the needs of the attached child who seeks care from the caregiver which results in safety and security (Waters et al., 2000). Bowlby and Ainsworth's research focused primarily on the relationship between infants and mothers and the attachment style practised by the caregiver.

In the present study I acknowledge Bowlby (Bowlby, 1982) and Ainsworth's (Ainsworth, 1989) contribution to attachment theory but, in addition, I challenge the dyadic view of attachment and instead expand it to reflect a systemic conceptualisation of attachment in which family members are assumed to be attached to the *family as a unit*, based on how they experience the sum total of relationships in the family. Thus, my examination of attachment is not directed at children's feelings of attachment to the parents only, but at all relationships in the family, including relationships with siblings. In this regard studies show that human beings seek relationships (Becker-Stoll, Fremmer-Bombik, Wartner, Zimmermann and Grossman, 2008; Diener and Seligman, 2002; Neufeld et al., 2006) and need social contact throughout their life span (Bowlby, 1979; Neufeld et al., 2006). Relationships are reciprocal and certain qualities of relationships are the result of the past, but sound childhood relationships are also a requirement of relationships in future and they definitely form the foundation for future relationships (Ainsworth, 1989; Brennan and Shaver, 1995; Mikulincer and Florian, 1995; Mullin and Arce, 2008). In the present study, I therefore endeavour to understand whether the indicators as described by Neufeld can be empirically measured as part of the assumed construct 'family attachment' and, if so, whether they could be associated with and possibly predict adolescent well-being.

## 1.3.        ASSUMPTIONS IN THE PRESENT STUDY

The assumptions that frame the present study are the following:

1.    Human beings are born as relational beings and depend on others for survival; the nature of dependency changes over time but humans are always looking to others for some kind of relational connection (Becker-Stoll et al., 2008; Diener et al., 2002; Neufeld et al., 2006).

2. Attachment is a basic human requirement for relational functioning. All humans experience a form of attachment regardless of their colour, race or language, or their socio-economic status (Ng, Trusty and Crawford, 2005; Orthner, Jones-Sanpei and Williamson, 2004).

3. All human beings crave and need social contact throughout their life span. Attachment is therefore a process that never stops (Bowlby, 1979; Neufeld et al., 2006).

4. Attachment is not only a feature of dyadic relationships, but can be examined from a systemic point of view by conceptualising it as the attachment that a young person has to the family (as opposed to a parent) (Andersson, 2005; Bynner, 2005).

5. The quality of relationships between family members supports the well-being of all family members. Support and acceptance from one's family unit enhance quality of life and may provide a buffer against difficult life events (Ainsworth, 1989; Brennan et al., 1995; Mikulincer et al., 1995; Mullin et al., 2008).

6. The family unit, as a social network, provides a sense of belonging, security and community and is also a source of adolescent well-being (Anderson, 2005; Evans and Kelley, 2004; Mullin et al., 2008).

## 1.4. PROBLEM STATEMENT

The present study introduces a systemic perspective of attachment as opposed to a dyadic perspective. Human beings are social creatures who exist in relation to one another, and therefore attachment relationships within the family unit are an important consideration (Andersson, 2005; Bynner, 2005). A family is not only a collection of people, but can also be seen as a system in which family interactions occur within the context of subsystems such as spouses, parents and siblings. A family consists of a number of interconnected members whose behaviour (with emotions, actions, thoughts and beliefs) mutually influences each other (Andersson, 2005; Bynner, 2005; Fosco and Grych, 2012). A family as a system can thus be regarded as a gestalt where the whole is more than the sum of its parts (Stevenson-Hinde, 1990; Wagner, 2008).

Traditional attachment research (Ainsworth, 1989; Bowlby, 1984), focused mainly on the relationship between an infant and a primary caregiver. Attachment is described as an emotional bond between a mother and an infant (Ainsworth, 1989; Bowlby, 1980) with the main

purpose of protecting and providing a secure base. The family as a unit and the sum total of relationships forms a broader base for offering security. It usually includes a network of sibling relationships that offer social capital resources to individual family members. Children do not rely on the primary caregiver only, but also on their attachment to the family as a unit or system (Ainsworth, 1989; Brennan et al., 1995; Mikulincer et al., 1995; Mullin et al., 2008). While it is important to acknowledge the relationship between mothers and infants, it is also limiting to explore attachment only from a dyadic perspective. Besides the fact that it ignores the important role of fathers and thus plays into discourses that equate parenting with mothering (Buist, Dekovic, Meeus, and van Aken, 2001), it also denies the supportive role that siblings play. Furthermore, it ignores the perspective of family that acknowledges that the family as a system is more than the sum of its parts and discounts the importance of "family climate" (Brown, Schalock and Brown, 2009; Grusec, 2011; Patterson and Hastings, 2007). Research on healthy family functioning indicates that a family's emotional climate and stability are pre-requisites for effective family functioning (Brown et al., 2009; Grusec, 2011; Patterson and Hastings, 2007). Family cohesion, or family closeness, is therefore needed for optimal family functioning (Bögels and Brechman-Toussaint, 2006), and can act as a protective factor in times of stress or adversity. Family functioning can thus be defined as the way in which family members interact, react to and treat other family members; it also includes variables within the family such as communication, styles, traditions, clear roles and boundaries, flexibility and adaptation (Winek, 2010). Traditional attachment research describes different styles of attachment, but other than Neufeld's popular work, relatively little is known about the conditions needed in a family to establish secure attachment relationships. Knowledge about the attachment relationship between adults and adolescents and their families is limited, although the quality of the relationships is indicative of the emotional and social well-being of both parents and children (Ainsworth, 1989; Brennan et al., 1995; Mikulincer et al., 1995; Mullin et al., 2008).

Neufeld et al., (2006) book is concerned with relationships and thus supported by current knowledge, but the question remains whether their work represents an addition to the current body of knowledge on family attachment. There is no doubt that healthy attachment is a protective factor in times of stress and should be associated with enhanced well-being of parents and youth. The problem is that while we understand the qualities of attachment in the dyadic parent-child relationship, we do not know the pre-requisites that Neufeld describes in his book, yet there is limited research exploring the extent of attachment to the family unit. Neufeld and Maté propose a broader perspective of examining attachment in their popular book *Hold on*

*to your kids. Why parents need to matter more than peers* (Neufeld et al., 2006). The intention of the book was to re-awaken people's natural parental instinct by explaining the causes of the breakdown of parental and family influence. Although their work seems to be influential, there is no clear empirical base for it and therefore the present study will contribute to the body of knowledge by examining and exploring attachment from a broader perspective.

## 1.5. RATIONALE FOR THE PRESENT STUDY

Families form an integral part of society and although not all problems can be explained by family breakdowns and insecure family relationships, a greater focus on family relationships as opposed to dyadic relationships can shed light on the role of parenting. Not only should the role of fathers but also that of siblings be explored in terms of enhancing family relationships that could result in the greater subjective well-being of family members. In my study I propose to develop and measure Neufeld's concept of family attachment to determine whether the relationship qualities Neufeld propose can be viewed as part of the same construct, which I assume to be family attachment. Further, I will test whether the developed construct of family attachment will possibly predict adolescent well-being. In my reasoning, I view family attachment as the adolescents' perception of the quality of their relationships with their families and I argue that family attachment contributes to adolescents' well-being.

Research (Stevens, Kiger, and Riley, 2006; Zabriskie and McCormick, 2001) shows that when an individual experiences the feeling of being understood, validated and cared for, it results in favourable relationships and psychological functioning. By examining the emotional climate of families and the way in which family members interact, react to and treat other family members, including variables within the family such as communication, styles, traditions, clear roles and boundaries, flexibility and adaptation, family connections are measured (Olson, 2011; Olson et al., 2003; Winek, 2010). Neufeld et al., (2006) attachment theory not only adds to our knowledge of family relationships in a family context, but also increases our knowledge about family cohesion which acts as a source of emotional support, hence emphasising its place in close relationships. In the present study the kind of family environment is likely in which adolescents will experience greater family cohesion.

## 1.6.      RESEARCH QUESTIONS

### 1.6.1.      Primary Research Question

What are the relational requirements of attachment in adolescent families?

### 1.6.2.      Secondary Research Questions

1.     Which qualities in their family relationships do adolescents value as indicators of family attachment?
2.     How do the indicators of family attachment as reported by adolescents relate to their subjective well-being?

The Primary Research Question was examined during a qualitative phase that included a literature review of attachment theory, well-being and also during a quantitative phase that included the development of a Family Attachment Scale (FAS). The FAS was developed to reflect Neufeld's theoretical propositions that family attachment consists of six dimensions, namely (i) proximity, (ii) sameness, (iii) belonging, (iv) significance, (v) feeling loved and (vi) being known. **Secondary Research Question 1** was investigated during the qualitative phase of the study during which participant's experiences with regard to the quality of the family relationships was explored.

In addition, **Secondary Research Question 2** was investigated during the quantitative phase of the study during which items were written, evaluated and empirically tested to assess whether some or all of these dimensions are required to assess family attachment. The FAS was subjected to evaluation by a panel of experts (see Section 1.9.2.2) as well as to statistical analysis which included reliability analysis and principal components analysis. The FAS was examined to determine whether it correlates with subjective well-being as measured by the Trait Well-Being Inventory (TWBI), and secondly whether family attachment can explain or possibly predict subjective well-being. To examine these questions I made use of Pearson correlations and statistical significance was set at $p > 0.05$. To assess whether family attachment can explain well-being, I used a General Linear Model (GLM) with Trait Well-Being Total Score (TWBTS) as the dependent variable, and love, similarity, proximity, significance and knowledge as independent variables. In this analysis I controlled for gender and parent marital status. Figure 1.1 is a visual depiction of the research process and methodology.

| PHASE ONE | PHASE TWO | |
|---|---|---|
| Qualitative phase | Qualitative phase | |
| Theoretical analysis | Pilot | Main |
| **AIM** | **AIM** | **AIM** |
| • Literature review of attachment; define attachment<br><br>• Construction and development of items<br><br>• Finalisation of items and further development | Initial item pool | Examine research questions |
| **PARTICIPANTS** | **PARTICIPANTS** | **PARTICIPANTS** |
| 16–18 year olds | 16–18 year olds | 16–18 year olds |
| **INSTRUMENTS** | **INSTRUMENTS** | **INSTRUMENTS** |
| • Semi-structured interviews with open-ended questions | • Family Attachment Scale (FAS)<br><br>• Trait Well-Being Inventory (TWBI) Dalbert | • Family Attachment Scale (FAS)<br><br>• Trait Well-Being Inventory (TWBI) Dalbert |
| **RELIABILITY / VALIDITY** | **RELIABILITY / VALIDITY** | **RELIABILITY / VALIDITY** |
| Interviewees check and confirm initial item pool | Cronbach's alpha coefficient<br><br>Construct / convergent-related validity | Cronbach's alpha coefficient<br><br>Construct / convergent-related validity |
| **ANALYSIS AND INTERPRETATION** | **ANALYSIS AND INTERPRETATION** | **ANALYSIS AND INTERPRETATION** |
| Deductive coding | Item reliability analysis | • Item reliability analysis<br><br>• Principal component analysis |

**Figure 1. 1: An overview of the research process used in the study**

## 1.7.     METHODOLOGICAL PARADIGM

A research paradigm is a scientific frame of reference that is chosen for a particular study (Garbers, 1996). A paradigm is an approach to a study that is established in a set of beliefs that describes different ways of seeing and dealing with the researcher's world-view (Denzin and Lincoln, 2005; Green, 2007; Tashakkori and Teddlie, 1998). In the present study a mixed method design was used that built from one phase (qualitative phase) to a second phase (quantitative phase). This form of research involves the collection, analysis and mixing of qualitative and quantitative data into a single study (Creswell and Plano Clark, 2011).

I acknowledge the fact that most mixed method studies are framed by a pragmatism paradigm that focuses on practical application to issues by merging views to help interpret data (Paulinus, and Eaton, 2013). However, I chose in the present study a critical realist framework as it is a philosophy of science that maintains that progress is possible because the dimensions of reality provide a point of reference against which theories can be tested (Bhaskar, 1986). Critical realism involves moving from the level of observation and experiences to assumptions about underlying structures and mechanisms that account for a specific phenomenon (Bhaskar, 1986). This strategy therefore uses qualitative data and results in the first phase to assist in the interpretation of the qualitative findings. The six dimensions of attachment, as described by Neufeld, were thus used in the second, quantitative, phase to develop a new instrument. By exploring the underlying structures and mechanisms of attachment, critical realism enabled me to investigate family attachment relationships. Critical realism makes an ontological distinction between three domains of reality: the empirical, the actual and the real. The *empirical* includes events that can be captured empirically, the *actual* consists of events that may go unnoticed, and the *real* includes both the empirical and actual domains, as well as potential events where the interaction of different types of fundamental mechanism may be generated (Denzin et al., 2005; Hedlund-de Witt, 2012; López, 2003; McEvoy and Richards, 2006; Zembylas, 2006). Critical realism recognises the multi-layered nature of the social world and states that reality is socially constructed, while maintaining the underlying structures and mechanisms of the real world (Zembylas, 2006). In social research the reality is acknowledged, but some aspects can only be understood as constructions. Nevertheless, it is also believed that those constructions are about a reality with an underlying structure that exists independent of the constructions.

A critical realist paradigm is suitable for studies such as the present study since it supports a range of research methods that involve both quantitative and qualitative research

methodologies. The ontology of critical realism bridges the dichotomy associated with qualitative and quantitative research, and allows research to reach areas that were inaccessible within traditional approaches (Bergin, Wells and Owen, 2008). From a critical realist perspective, qualitative methods are open-ended and may allow themes to emerge, while quantitative methods identify concepts and relationships. From this perspective, therefore, I intended to focus on more than one level of objective truth entailing adolescents' subjective experiences and constructions of attachment as indicators in order to arrive at more objective statements that would address experiences across a range of people and families. By using the philosophy of critical realism my focus was on ontology and obtaining knowledge of the world. Through a process of critical thinking and questioning different layers of understanding of the world do transpire. The objective of critical realists is therefore to produce in-depth understanding of fundamental mechanisms, how they have been triggered and under what circumstances they have been activated (Denzin et al., 2005, Hedlund-de Witt, 2012; Bergin et al., 2008).

## 1.8.        ETHICAL CONSIDERATIONS

The University of Pretoria's Code of Ethics emphasises the responsibilities of researchers when conducting research and stresses the need for research to improve mental health in South Africa (University of Pretoria, 1994). These responsibilities include having a social responsibility towards society to address problems, treating participants equally and justly, promoting the well-being and benevolence of each participant, treating participants with respect, maintaining individuals' freedom of choice and recognising the importance of professionalism at all times (University of Pretoria, 1994).

Before data collection the outline of the methodology of the present study was subjected to peer review and was granted approval by the Faculty of Education Research Ethics Committee (Appendix D). The focus of the present study is on the experience of family attachment from the perspective of adolescents and how their perception of their attachment to their family impacts on their sense of well-being. Permission for the study (Appendix B) was obtained from the Gauteng Department of Education, as well as from the parents of the participants (Appendix A) and the participants themselves (Appendix C). For the duration and purpose of the present study the ethical requirements as stipulated by the Ethics Committee were adhered to. These ethical principles included: informed consent, voluntary participation, confidentiality and anonymity, trust and privacy.

Informed consent is a process where participants give consent to participating in a study based on full disclosure of information. Participants will understand and know what the study is about and what participation will entail (Denzin et al., 2005). The principle of voluntary participation requires that participants must not be coerced into participation and that informed consent must be obtained from participants as well as their parents. Both the schools involved and the students were informed about the benefits of this research. Although the privacy of the participants was taken into consideration, they were assured that they would be informed about the outcome of the research. In view of the sensitivity of the research, students would have access to a psychologist should they need to debrief.

Maintaining confidentiality and anonymity as well as informing the students of their right to withdraw from the research project at any point were adhered to in both phases. Participants were not to be subjected to any acts of deception or betrayal in the research process or its published outcomes. The principle of trust was adhered to and in the first qualitative phase participants had an opportunity to examine the transcripts so that could edit, change or withdraw any data at any given time in order to ensure accuracy. The privacy of the schools and the students was to be protected and there would be no reference or link to individual participants or the school in the research process or in published outcomes. In the second quantitative phase the results were to be reported in a reliable and accurate manner that would protect participants from risk or harm of any kind (Creswell, 2003; Henning, Van Rensburg and Smit, 2004; Ritchie and Lewis, 2004).

## 1.9. RESEARCH DESIGN AND METHODOLOGY

### 1.9.1. Data collection process

#### 1.9.1.1. Overview of process

Permission was granted by the Gauteng Department of Education (Appendix B) to conduct research at two government schools in Pretoria. The schools were conveniently selected and I first approached the Principal and then the School Governing Body to seek permission to do research at their schools. Both schools co-operated in a positive manner. I used multi-stage random sampling to identify participants but was unable to exercise control over the achievement of a representative sample in terms of gender and population as participants were randomly chosen. Informed consent was obtained in both stages of the research from the participants' parents (Appendix A) and assent from the participants (Appendix C).

Questionnaires that include the Family Attachment Scale (FAS) and the Trait Well-Being Inventory (TWBI) were distributed among students during the pilot and main phases prior to obtaining the agreement of the schools. Participants completed the questionnaires within approximately 30 to 45 minutes and no follow-up sessions were required. I collected the questionnaires immediately after completion. The intended processes for the phases and analyses are detailed below.

### 1.9.1.2.        Qualitative phase

In the qualitative phase data will be collected from the participants in one-on-one semi-structured interviews. The interviews will be taped after informed consent has been obtained from the parents (Appendix A) and assent from the participants (Appendix C). The interviews (see interview guide in Appendix K) will assist me to understand the quality of the family relationships from the adolescent's perspective and also to check whether Neufeld's dimensions of attachment are relevant. The interviews will be transcribed verbatim and used as a guideline when developing the initial item pool in the quantitative phase.

### 1.9.1.3.        Quantitative phase

Participants will complete the Family Attachment Scale (FAS) (Appendix E) and the Trait Well-Being Inventory (TWBI) (Dalbert, 1992) (Appendix F) in my presence during the pilot and main phases. These questionnaires will be collected immediately thereafter (see Section 1.9.1.1 above).

### 1.9.2.        Exploratory sequential mixed method design

An exploratory sequential mixed method design was chosen for the present study to answer the research questions (Creswell et al., 2011). The qualitative phase is followed by the quantitative phase with a notation of qualQUAN. The purpose of this exploratory sequential design is to develop a Family Attachment Scale.

### 1.9.2.1.        Qualitative phase

The qualitative phase will include a review of the literature, targeting Neufeld's constructs of family attachment. In addition, I followed DeVellis's (2012) guidelines on scale development as he pointed out that the main objective of scale development is to measure phenomena that cannot be assessed directly but exist due to our theoretical knowledge of the world. I will utilise

the exploratory interviews to explore the participants' perspective of family attachment and consequently obtain acceptable language to phrase the items. (Scale development is discussed in more detail in Chapter 3, Section 3.4.)

### 1.9.2.2. Quantitative phase

In the quantitative phase the initial item pool will be subjected to revision by a panel of experts prior to piloting. The panel consisted of three experts. Expert one is an associate professor in Educational Psychology, expert two is an Educational Psychologist and expert three is a Grade 11 student at one of the participating schools. The experts will rate the items in terms of complete agreement, partial agreement and no agreement. In the pilot study the reliability of the FAS will be measured by using Cronbach's alpha coefficient. The items will be inspected and three indices measuring skewness, namely G1, Pearson 2 ($Sk_2$) and standard error of estimation, will be used to assess possible candidates for deletion (Doane and Seward, 2011). Items exhibiting significance for all three indices of skewness will be identified and will subsequently be deleted.

To investigate the theoretical structure of the FAS in the main study I will conduct a Principal Component Analysis (PCA) with a promax rotation to assess the dimensionality of the FAS. The eigenvalue >1 rule, in conjunction with a scree test, will be conducted to determine the number of factors that should be retained. Correlational analysis will be used to investigate the strength of the relationship between the FAS and the Trait Well-Being Total Score, Trait Well-Being Life Satisfaction Score and the Mood Level Score (DeVellis, 2012; Kaplan and Saccuzzo, 2009; Pallant, 2011). A General Linear Model Procedure (GLM) will be used to investigate whether family attachment possibly predicts well-being.

### 1.9.3. Sampling strategy

### 1.9.3.1. Qualitative phase

Participants will range in age from 16 to 18 years, in grade 11 or 12, and will be drawn from two government schools in Pretoria. Convenient multi-stage random sampling will be used to select the participants (Creswell et al., 2011; Marshall and Rossman, 1999). I anticipated that the qualitative sample might be smaller than expected as I will be guided by the quality of the participant's answers.

### 1.9.3.2. Quantitative phase

Participants for the pilot and main phases will be selected from two government schools in Pretoria. They will range in age from 16 to 18 years and be in grades 11 or 12. Convenient multi-stage random sampling will be used to obtain the required sample. As indicated in the literature, it is necessary to obtain a larger sample size for the main study as this increases the statistical significance and determines to what extent statistical analyses can be made (DeVellis, 2012).

### 1.9.4. Instruments

### 1.9.4.1. Family Attachment Instrument

In both the pilot and main phases a demographic questionnaire will be included with questions that contain subgroups in relation to age, gender and parental marital status. In addition, participants will be asked to respond to a set of items that targeted the assumed indicators of family attachment. The Family Attachment Scale (FAS) is thus a new instrument based on Neufeld's theory of family attachment.

### 1.9.4.2. Trait Well-Being Inventory (TWBI)

The Trait Well-Being Inventory Scale was included in the pilot and main studies to measure construct validity for the FAS with regard to adolescents' well-being. The TWBI (Dalbert, 1992) (Appendix F) consists of six items from the Mood Level Scale of Underwood, Froming and Moore (1980) and seven items from the General Life Satisfaction Scale (Dalbert, Montada, Schmitt and Schneider, 1984). The TWBI scale describes satisfaction with one's present and past life and one's future perspectives. Well-being will be measured through the TWBI to obtain construct-related evidence for the validity of the FAS as family attachment is theoretically associated with greater well-being.

### 1.9.4.3. Reliability and validity

The reliability and validity for newly developed instruments are important as the reliability of a new instrument is concerned with the consistency and repeatability of scientific findings (Burton and Mazerolle, 2011 De Vellis, 2012; Kaplan et al., 2009). Cronbach's alpha coefficient will be employed to measure the reliability and internal consistency of the scale items of the newly developed Family Attachment Scale (FAS), as well as of the established Trait Well-Being

Inventory Scale (TWBI). It is expected that items on the FAS will have high correlational loadings.

Construct validity evidence will be gathered in terms of convergent validation and will be further established through factor analysis. Convergent validity will be indicated by evidence of correlations between the new FAS and the TWBI (DeVellis, 2012; Kaplan et al., 2009).

## 1.9.5.       Data analysis strategies

### 1.9.5.1.       Qualitative phase

Qualitative data analysis will be used to analyse participants' responses to open-ended questions (Braun and Clarke, 2006) (see Appendix K). Qualitative data will be explored by using a deductive approach in which logic-content and theory will be included (DeVellis, 2012; Kaplan et al., 2009). Neufeld's six dimensions of attachment, namely: (i) proximity, (ii) sameness, (iii) belonging, (iv) significance, (v) feeling loved and (vi) being known, will form the basis of the theoretical coding. The interviews will be transcribed verbatim into text form. The language and phrases used by the participants will be scrutinised and compared to the theoretical model as described by Neufeld (Neufeld et al., 2006). The findings will be presented in a table that presents and explains the different themes that emerged from the qualitative data (see Chapter 4). Qualitative credibility will be achieved as participants will check their transcribed responses to ensure consistency with the transcripts (Creswell et al., 2011).

The SAS computer program will be used to compute the collected data. The statistics Department of the University of Pretoria will assist in this process. A panel of experts will evaluate the FAS before piloting by rating each item. Subsequently, items on which the panel of experts cannot agree will be removed. The data will be described by calculating the mean and median, standard deviation and variances (Creswell, 2008; Kaplan et al., 2009; Teddlie and Tashakkori, 2009).

### 1.9.5.2.       Principal Component Analysis (PCA)

The goal of Principal Component Analysis (PCA) is to serve as a reduction procedure: the number of variables is analysed and reduced into a smaller set of components. PCA extracts as much variance as possible with the fewest number of components. Exploratory Factor Analysis (EFA) and PCA are both variable-reduction techniques and are sometimes mistaken as being the same statistical method (Fabrigar and Wegener, 2012; Pallant 2011). However, in the

present study PCA with promax rotation was applied to examine the interrelations among a set of variables in order to identify the underlying structure of those variables. In PCA the components are the end products of the items and determine the nature of the components (De Vellis, 2012). Promax rotation is selected as items and factors are theoretically expected to correlate. The components are weighted sums of the original items and thus linear transformations of the original variable (Fabrigar et al., 2012; Pallant, 2011). The first step in PCA is to determine the suitability of the data and sample size. The commonalities between items should be greater than .60, with at least 3 to 5 measured items per construct (Burton et al., 2011; Fabrigar et al., 2012). Thereafter a component matrix is inspected to determine the relationships between individual variables. The strength of the inter-correlations is measured by using the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and the eigenvalue >1 rule is followed, meaning that factors are retained above the eigenvalue of 1. Furthermore, Cattell's criterion (scree plot) is evaluated (Fabrigar et al., 2012; Pallant, 2011). The labelling of the factors is the next step when a final model fit emerges.

### 1.9.5.3.    Distribution of scaled scores

The distributional properties of the FAS and the TWBI and subscales will be inspected to indicate the normality of the data. Scale scores provide a standard range and permit fair comparisons of results. Analyses of the data will include the observation of the scale mean, median, skewness and kurtosis values. Histograms and scatter plots will also be inspected (Pallant, 2011; Razali and Wah, 2011). In addition, data will be inspected for floor and ceiling effects to identify problems such as non-linearity or underestimated regression parameters (Resch and Isenberg, 2014; Wang, Zhang, McArdle and Salthouse, 2008).

### 1.9.5.4.    Correlational analysis

The Pearson correlation coefficient (r) will be used to investigate the statistical relationship between the independent variables (love, similarity, proximity, significance and knowledge) and the dependent variables, which include the Trait Well-Being Total Score, Trait Well-Being Life Satisfaction Score and the Mood Level Score (De Vellis, 2012; Kaplan et al., 2009; Pallant, 2011). The strength of the relationship between the items will be evaluated and should be greater than .3, as recommended by Tabachnick and Fidell (2001). The results of the correlational analysis will be discussed in Chapter 4 of the present study.

### 1.9.5.5. General Linear Model (GLM)

In the present study I will use the General Linear Model (GLM) as a univariate linear regression model (De Vellis, 2012; Kaplan et al., 2009; Pallant, 2011). By using the GLM I will endeavour to investigate the assumed impact of family attachment on subjective well-being. The Trait Well-Being Total Score (TWBTS) as the dependent variable and the Family Attachment subscales (love, similarity, proximity, significance and knowledge) as the independent variables will be entered into the model simultaneously. Gender (V2), parental marital status (V6) and interaction between gender and parental marital status (V2*V6) will also be added to the model (Armstrong, 2011). In the subsequent steps each variable with the highest p-value will be removed, one at a time. Variables are removed based on the fact that their interaction is not significant until a final model fit occurs. The coefficient of determination ($R^2$) indicated that only two of the independent variables, namely Love and Knowledge, explained 40% of the variation in the dependent variable ($R^2 = 0.40$).

### 1.10. LIMITATIONS OF THE STUDY

The present study is based on self-reporting and relies on participants' experiences of their relationship with their family members. Their responses might be affected by a "social desirability bias", which implies that participants might provide responses that they think are socially acceptable (Beretvas, Meyers and Leite, 2002). The study includes only adolescents ranging from 16 to 18 years and thus both the age group and the sample group selected impose a limitation which will not permit generalisation of the findings to samples other than the age group in the present study (Denzin et al., 2005). The participants attended two public (government) schools and it can be assumed that they are from an average social structure, therefore excluding lower-income families, a factor which could influence the quality of the family relationship. The present study did not control for adversity or risk factors as such future studies will advance these ideas. In addition, the wording of some of my items may reflect a world-view of life experiences that are limited to certain cultural or socio-economic groups and therefore may exclude others. For example, 'I do not enjoy family outings' – not all families might have the luxury of outings and so such items might be a limitation of the present study and should be tested with future research.

## 1.11. CONTRIBUTIONS AND STRENGTHS OF THE STUDY

I anticipate that the results of the present study will make a significant theoretical contribution to the literature on the theory of family attachment (La Guardia, Ryan, Couchman and Deci, 2000; Qadeyklaey and Fard, 2014; Neufeld et al., 2006; Walsh, 2003) by providing greater clarity about the qualities of family relationships that may contribute to youth in the case of the present study adolescent well-being. Extending the focus on adolescents' attachment to the family unit as opposed to their parents only, may offer greater clarity about what qualities of family relationships could be more important than others. By examining the emotional climate of families and the way in which family members interact with, react to and treat other family members, family connections are measured which puts us in an improved position to recognise the development of adjustment problems that lead to negative outcomes such as substance abuse, violence and depression (Baptist et al., 2012; Finzi, Ram, Har-Even, Shnit and Weizman, 2001). Neufeld's attachment theory could possibly add to our knowledge of family relationships and its contribution to adolescent well-being. I argue that attachment relationships contribute to healthy family functioning (Olson, 2011; Olson et al., 2003).

## 1.12. KEY CONCEPTS

### 1.12.1. Family attachment

For the purpose of the present study, my operationalisation of family attachment is based on Gordon Neufeld's (Neufeld et al., 2006) conceptualisation of attachment, in which attachment is described as a developmental process with six dimensions, namely (i) proximity, (ii) sameness, (iii) belonging, (iv) significance, (v) feeling loved and (vi) being known (Neufeld et al., 2006). The indicators of family attachment ascend from the simple to the more complex and the less mature a child is, the more 'primitive' the attachment will be (Neufeld et al., 2006). The six indicators of family attachment are defined in the next sections.

#### 1.12.1.1. Proximity

Physical closeness or proximity is important to children as they need contact with the person they are attached to, whether through smell, sight, sound or touch (Bowlby, 1980; Neufeld et al., 2006). Parents should be able to provide a secure base and to establish an affectionate bond between parents and child. The hunger for physical contact is visible across the life span, and later develops into the need for intimacy, warmth and affection with parents to provide safety,

comfort and re-assurance, especially in times of stress or uncertainty (Ainsworth et al., 1978; Kaitz, Bar-Haim, Lehrer and Grossman, 2004; Neufeld et al., 2006). Family members who experience closeness and intimacy are likely to feel greater attachment to the family unit.

### 1.12.1.2. Sameness

People generally feel drawn and attached to individuals they can relate to (Byng-Hall and Stevenson-Hinde, 1991; Torgersen, Grova and Sommerstad, 2007). Children identify and imitate such individuals and they try to be like the person they are closest to. The quest for sameness plays a huge role in shaping the personality and behaviour of children (Neufeld et al., 2006). When similarities and likeness are noticed by others, children take great pleasure – whether it is the same sense of humour, the same preference in food or the same taste in music (Neufeld et al., 2006). Family members who feel that they share a common experience with other family members are likely to be more attached to the family unit and "identify" with the family more.

### 1.12.1.3. Significance

It is human to hold close what we value and to feel closer to people who are warm and accepting (Neufeld et al., 2006; Ryan, Brown and Creswell, 2007). If we feel we matter to somebody, we will seek that person's favour to ensure closeness and connection. Children may feel hurt and rejected if they do not gain the family's favour or approval (Neufeld et al., 2006; Ryan et al., 2007). When family members feel that they are significant to the family unit, they are likely to experience greater well-being.

### 1.12.1.4. Belonging

A sense of belonging has been identified as a basic human need (Maslow, 1968). Belonging is defined as the attribute of being valued, needed or important with respect to other people, groups or environments (Ryan et al., 2007; Tabane and Human-Vogel, 2010). Sensitive, responsive parents promote security in attachment. Children feel secure in a relationship where open communication takes place and where the adult is available and reliable. A sense of belonging is rooted in early attachment systems that influence a person's developing view of self in relation to others (Collins and Feeney, 2000; Hagerty, Lynch-Sauer, Patusky, Bouwswma and Collier, 1992). Early parental interaction and life experiences within the family might be

related to the development of an adult sense of belonging (Neufeld et al., 2006; Ryan et al., 2007).

### 1.12.1.5. Feeling loved

A supportive, loving relationship is critical in a healthy parent–child attachment bond (Bretherton, 1992; Neufeld et al., 2006). Being respected and trusted supports the feeling of being loved and cared for. Children who experience emotional intimacy with their parents can tolerate more physical separation and yet hold the parent close (Black and Schutte, 2006; Neufeld et al., 2006). Similar, from a family perspective, family members who feel loved, are assumed to be more likely to tolerate being separated by distance, yet remain close by keeping contact. The desire to maintain loving relationships have obvious advantages for adolescent well-being.

### 1.12.1.6. Being known

To feel close to someone is to be known by him or her; in the pursuit of closeness, self-fulfilment and emotional connection a child will share his/her secrets (Neufeld et al., 2006). 'Being known' means to be known on a very deep psychological level by family members. Adolescents who feel known by their parents and siblings do not like to keep secrets from other family members because this could result in loss of closeness with the family unit. They are also more likely to share their deepest desires, dreams and things that are important to them (Neufeld et al, 2006; Sander, 2002). Family members who know one another on a deep psychological level should experience greater family attachment, which should support the family in times of stress and adversity.

### 1.12.2. Family

For the purpose of the present study a family includes both parents and siblings. The focus of the study is not on the family structure nor is it concerned about whether a child is from a single-parent, no-parent or stepfamily, or if grandparents are the caregivers (Demuth and Brown, 2004; Mokrue, Chen and Elias, 2011). The focal point is to investigate the experience of adolescent family attachment relationships and the impact on the adolescents' sense of well-being. A theoretical assumption is that closeness and a sense of belonging is an universal need for people despite race or colour. However, the way people experience attachment may differ (Orthner et al., 2004). The present study will examine the quality of the attachment relationship between family members as family cohesion influences and shapes the well-being of an

individual (Bögels and Brechman-Toussaint, 2006). Emotional closeness or the sense of belonging is essential for the development of emotional functioning of children in this case adolescents (Vandeleur, Jeanpretre, Perrez and Schoebi, 2009).

### 1.12.3.    Adolescents

The present study refers to children who range between the ages of 16 and 18 years. This phase of development is considered to be a period characterised by processes of change in physical, cognitive and psychosocial functioning (Ethics in Health Research, 2015; Cicognani, 2011). Although adolescents explore autonomy physically and psychologically, the availability of attachment figures remains critical. Despite the fact that their need for distance from the parents increases, the availability and accessibility of parents in times of need are key features of a secure attachment relationship (Dubois-Comtois, Pascuzzo, Lessar and Poulin, 2013). The quality of the family relationships as perceived by adolescents is indicative of adolescent well-being (Diener et al., 2002; Liddle and Schwartz, 2002). Healthy family functioning acts as a protective factor in times of stress and adversity therefore healthy attachment relationships are associated with enhanced well-being of parents and youths.

### 1.12.4.    Well-being

In the present study I examine and measure well-being as it is operationalised in the TWBI. The TWBI conceptualises well-being as a construct consisting of the Mood Level Scale (Underwood et al., 1980) and the General Life Satisfaction Scale (Dalbert, 1992), which has been shown to be comparable to the Life Satisfaction Scale of Diener (Diener, 2006). A positive mood level is thought to be reflective of an emotional component that evaluates positive affect versus negative affect (Pavot and Diener, 2008; Dalbert, 1992), whereas life satisfaction represents the concept of happiness and is frequently associated with well-being (Deci and Ryan, 2008). The present study will focus on the hedonistic approach of well-being rather than on the eudaimonic approach. The hedonic approach focuses on the adolescents' experience of positive versus negative attachment relationships whereas the eudaimonic approach focuses on actualisation of one's potential and living a fulfilling and meaningful life (Deci et al., 2008).

### 1.13.    CONCLUSION

Chapter 1 provides an overview of the present study. I propose a broader focus on family relationships as opposed to dyadic relationships and on the role of families in terms of

enhancing family relationships which could result in greater subjective well-being of family members, in particular those of adolescents. Attachment is explored from the adolescents' perspective and the quality of their attachment relationships with their families. These would be the hallmark of healthy family functioning, and would be associated with greater adolescent well-being (Olson, 2011; Olson et al., 2003).

# CHAPTER 2
# A THEORETICAL BACKGROUND AND CONCEPTUAL FRAMEWORK
# FOR UNDERSTANDING ATTACHMENT

## 2.1.        INTRODUCTION

Human beings exist in relation to other people and although cultures and individuals vary in the strength and form of their sociality, all humans are social creatures and need others to survive. From birth humans form bonds with others. These relationships might develop within the family, within marriage, among friends, among neighbours, within the work environment, the environment of clubs or the religious environment of places of worship. Humans rely on one another and seek to belong (Mullin et al., 2008; Reiss and Neiderhiser, 2000; Rutter, 2000).

Traditional attachment researchers, Bowlby (1980) and Ainsworth (1989), recognised the importance of family ties and describe attachment as an emotional bond that forms between children and parents. John Bowlby, one of the earliest attachment theorists, describes attachment as an emotional bond that connects one family member to another across time and space (Ainsworth, 1973; Bowlby, 1969/1982). While Bowlby's focus is the family context, in a more recent publication Gordon Neufeld (Neufeld et al., 2006) describes attachment as the relationships in the family that shape the experiences both inside and outside the familial context. Neufeld et al., (2006) propose that the quality of the family ties influences relationships beyond the family. Attachment theory can therefore be positioned at the heart of family life; people need an initial family attachment to form relationships beyond the family.

The functioning of a family has a significant impact on individual adjustment and the relationship with one's family has been found to be a key predictor of psychosocial adjustment (Richardson and McCabe, 2001). Family functionality can be evaluated by the cohesion that exists within the family. Cohesion refers to the connection, closeness and involvement that exist between family members and has been reported to be associated with increased self-esteem (Baldwin and Hoffmann, 2002; Patterson, 2002a and b). Families with strong emotional bonds secure attachment relationships and family support has a solid family cohesion (see Chapter 1, Section 1.1).

## 2.2.        DEFINING ATTACHMENT

Attachment has been widely studied in psychology and according to traditional attachment theorists, Bowlby (1988) and Ainsworth (1978, 1989), attachment can be defined as the bond of affection that a child forms with his/her primary caregiver which binds them together. The bond includes a desire for regular contact and the experience of distress during separation. The attachment figure is seen as a secure base for the individual and a safe haven in times of distress (Ainsworth et al, 1978; Bowlby, 1980; Waters et al., 2000). The attachment theory was originally developed by Bowlby (1969/1982, 1980) and was further refined by Ainsworth (Ainsworth et al., 1978; Ainsworth, 1989). Bowlby explained attachment as a behavioural system and that crying, calling, clinging and searching can be observed if the caregiver is not available or responsive to the child's needs (Bowlby, 1980). Attachment is thus a process in which individuals develop a style to improve safety and proximity to caregivers. The process takes place within the dyad relationship of child and caregiver, with the focus on the dynamics of protection, care and felt-security within the relationship (Rothbaum, Rosen, Ujie and Uchida, 2002). Bowlby's attachment theory focused initially on infant and childhood development, but later research based on Bowlby's theory extended the study to adult functioning and the impact of attachment on adults. Four patterns of attachment, namely *secure* attachment, *avoidant* attachment, *anxious/ambivalent* attachment and *disorganised-disoriented* attachment, are used to describe the relationship between caregiver and child (Bowlby, 1982).

A broader focus on family relationships as opposed to dyadic relationships can shed light on the role of families in terms of enhancing family relationships that could result in well-being of adolescents'. In the present study attachment is explored from the adolescents' perspective and the quality of their attachment relationships with their families. These would be the hallmark of healthy family functioning, and would be associated with greater adolescent well-being (Olson, 2011; Olson et al., 2003).  Neufeld's attachment theory indicates six conditions in a family that are needed to establish secure attachment relationships. These conditions form a developmental process that includes: (i) proximity, (ii) sameness, (iii) belonging and loyalty, (iv) significance, (v) feeling loved and (vi) being known (Neufeld et al., 2006). Understanding and refining the concept of attachment is important from an ecological system theory perspective (Bronfenbrenner, 1997). Bronfenbrenner's ecological system theory (1979) highlights the fact that family is the first unit to which children belong, followed by school and community. The quality of family relationships is important as they enable families to overcome adversities and improve adolescent well-being (Ungae, Ghazinour and Richter, 2012).

According to the Bronfenbrenner's (Krishnan, 2010) ecological system theory, if relationships in the microsystem break down, children will not have the ability to explore other parts of their environment as the quality of relationships between family members is fundamental to the way families function and it influences the well-being of parents and children. Support and acceptance from our family unit enhances the quality of life and provides a buffer against difficult life events (Ainsworth, 1989; Brennan et al., 1995; Mikulincer et al., 1995; Mullin et al., 2008). Adolescence can be a challenging developmental phase during which individuals seek autonomy while enjoying greater physical distance from their family. However, adolescents with close and supportive attachment relationships are aware and in need of parents' availability and accessibility (Dubois-Comtois et al., 2013; Diener et al., 2002). One's attachment to family acts as a protective resource of adolescent well-being (Walsh, 2003; Wong, 2012). In addition, Neufeld proposes that relationships within the family are central and influence an individual's development and sense of well-being (Neufeld et al., 2006). South African families are confronted with many challenges. For example, divorce rates have soared, creating an attachment void (Section 2.7). The growing sense of economic insecurity might also create an atmosphere of difficulty for families. Marital strain in families can cause children to become less close to their family, depriving them of emotional contact. Meaningful relationships between family members are central to this perspective and therefore attachment can be seen as a relational experience. When the child experiences closeness (proximity), having something in common (sameness), belonging, acceptance (significance) and support and love (feeling loved), the attachment relationship progresses into an emotional closeness and a sense of psychological intimacy (being known) (Neufeld et al., 2006).

## 2.3. TRADITIONAL ATTACHMENT THEORY

### 2.3.1. Bowlby's Attachment Model

John Bowlby explored attachment, separation and loss in his three-volume series *Attachment and Loss* (1969/1982; 1980; 1980a). According to Bowlby's attachment theory, infants turn to their caregivers as a safe haven in times of stress or anxiety (Bowlby, 1969, 1980). Bowlby described attachment as the connection between an infant and the primary caregiver (Bowlby, 1969) and attempted to understand the distress experienced by infants who have been separated from their parents. Infants would cry, cling to or search for their parents to prevent separation or to re-establish proximity (Bowlby, 1980). According to Bowlby, attachment bonds have four defining features: *proximity seeking* (wanting to be physically close to the attachment

figure), *separation distress* (experiencing anguish when separated from the caregiver), *safe haven* (retreating to the caregiver when there is danger) and *secure base* (exploring the world when sensing that the attachment figure will protect the infant from danger) (Bowlby, 1969, 1980; Sonkin, 2005). Bowlby emphasised the importance of the availability of the attachment figure as a secure base and a safe haven from where support, protection and comfort in distress can be sought (Bowlby, 1982).

If a child receives support and comfort from a caregiver, that child will develop an internal working model of the self as worthy of love and support and a model of others as trustworthy and dependable (Bowlby, 1980). This working model enables individuals to interpret and anticipate the behaviour of others and serves as an example for current and future relationships (Bretherton and Munholland, 1999). According to Bowlby's attachment theory (1982), a child internalises experiences with caretakers and over time uses these early attachment relations outside the child-caregiver relationship (Collins, Ford and Feeney, 2012). These early childhood attachment relations then become lasting social schemas that determine cognitive, affective and behavioural responses (Bowlby, 1988; Collins et al., 2012). Bowlby developed his theory about a child's ties to the mother and its disruption through separation, deprivation and bereavement, but it was Mary Ainsworth who helped expand the theory. She contributed by identifying the attachment figure as a secure base from where an infant can explore the world (Bretherton, 1992).

### 2.3.2. Ainsworth's Attachment Model

Although Mary Ainsworth's research was carried out within the framework of Bowlby's theory, she expanded greatly upon his original work by providing empirical evidence for his attachment theory and thus revealing the profound effects of attachment on behaviour (Ainsworth et al., 1978; Ainsworth, 1989). She was central to the development of attachment theory (Ainsworth et al., 1978; Ainsworth, 1989) as she observed mothers and their infants in a laboratory and developed the *Strange Situation,* an assessment tool, where she observed infants' "expectations" regarding the availability of their caregivers. Infants' behaviour was observed as they interacted with the caregiver and a stranger. The reunion with the caregiver was important in the observation process (Ainsworth et al., 1978). Ainsworth's research suggested that infants' attachment behaviour during the *Strange Situation* reflected the quality of care the infant received during its first year of life (Fox, Kimmerly, and Schafer, 1991; Main and Weston, 1981).

In addition, she explained the idea of maternal sensitivity to infant signals and emphasised the role it plays in the development of infant-mother attachment patterns (Bretherton, 1992).

Ainsworth et al. (1978) identified four prominent patterns of attachment in the behaviour of infants and adolescent children: *secure* attachment, *avoidant* attachment, *anxious/ambivalent* attachment and *disorganised-disoriented* attachment. During the *Strange Situation* she noted that s*ecurely* attached children turn to their parents for comfort and protection and return to explore their environment (Ainsworth et al., 1978). *Avoidant*-attached infants avoid their caregiver upon their return, while the *anxious/ambivalently* attached child does not explore the environment but instead clings to his/her caregivers (Ainsworth et al., 1978). Infants who display attachment relationships that are characterised by the d*isorganised-disoriented* patterns display a mixture of ambivalent and avoidant patterns of behaviour (Main, Kaplan and Cassidy, 1985).

### 2.3.3.    Adult attachment research

Researchers (Hazan and Shaver, 1987; Feeney, 2003; Collins and Read, 1990) have studied adult love relationships and used patterns of attachment similar to those identified by Ainsworth et al. (1978) as a framework. Hazan et al., (1987) identified *secure*, *anxious* and *avoidant* patterns of attachment. They used respondents' self-reports and concluded that adults who described themselves respectively as *secure*, *avoidant* or *ambivalent* regarding romantic relationships reported different patterns of parent-child relationships in their family (Shaver and Hazan, 1988).

Bartholomew and Horowitz (1991) extended the attachment model into four attachment categories, namely *secure*, *preoccupied*, *fearful avoidant* and *dismissive avoidant,* that include the different combinations of positive and negative beliefs about self and others. Marganska, Gallagher and Miranda (2013) studied attachment in adulthood and concluded that attachment behaviour has its roots in the relationship with parents. According to their theory, individuals with a *secure* attachment pattern think positively about themselves, are comfortable with intimacy and autonomy, and expect other people to be trustworthy, accessible and responsive (Bartholomew, 1990). *Preoccupied* individuals have a sense of personal unworthiness but positively evaluate others. Individuals with *fearful-avoidant* attachment issues experience a sense of personal unworthiness, a fear of being rejected by others and difficulty trusting others. *Dismissive-avoidant* individuals have a positive self-image but mistrust others (Kilmann, Laughlin, Carranza, Downer, Major and Parnell, 1999).

Mary Main and her colleagues (Main et al., 1985) developed the Adult Attachment Interview (AAI), a one-hour attachment history interview that enquires into "descriptions of early relationships and attachment and adult personality" (Main et al., 1985). The participants had to self-report about thoughts and feelings in adulthood, usually with respect to romantic partners. Main et al. (1985) and Levy, Ellison, Scott and Bernecker (2010) identified three patterns of adult attachment: *secure/autonomous*, *dismissing* and *enmeshed/preoccupied,* patterns that correspond to Ainsworth's original three infant classifications. Adults with a secure state of mind reported a balanced and objective version of their experiences with their romantic partners. The present study will add to these perspectives regarding the impact of the quality of family relationships and the state of adolescents' relationships with others outside the family, thus influencing the society as a whole. Neufeld's attachment theory adds to our knowledge of family relationships in a family context, as family cohesion acts as a source of emotional support, hence emphasising its place in close relationships.

Brennan, Clark and Shaver (1998) and Fraley and Waller (1998) noted that the dimensions *anxiety* and *avoidance* motivate most adult attachment styles and infant attachment patterns. Conceptually, secure people are characterised by low anxiety and low avoidance, whereas fearful people show high avoidance and high anxiety (Brennan et al., 1998). Dismissive people have low anxiety and high avoidance and preoccupied people have low avoidance and high anxiety tendencies (Brennan et al., 1998; Ng et al., 2005; Orthner et al., 2004). Attachment anxiety is associated with a negative self-image and an extreme need for approval and a fear of rejection, while attachment avoidance is associated with a negative image of others, an extreme need for self-reliance or a fear of depending on others (Brennan et al., 1998).

Other researchers who studied attachment in adult relationships (Hankin, Kassel and Abela, 2005) have indicated the importance of attachment across different stages of a person's life (Ainsworth, 1991; Fraley, 2002; Johnson, 2004; Waters, Hamilton and Weinfield, 2000; Waters et al., 2000). This is consistent with Bowlby's view that attachment extends from "the cradle to the grave" (Hankin et al., 2005). However, these theories do not address the experience of family attachment from the perspective of adolescents and how their perception of their attachment to their families impacts on their sense of well-being. The quality of attachment relationships with members of one's family and how it affects the quality of adolescents' social relationships (including romantic relationships and intimate friendships) is also not addressed. The literature suggests that attachment influences adult adaptation, self-esteem and coping mechanisms (Bowlby, 1979; Brennan et al., 1998). Parents serve as attachment figures in

infancy; in adulthood, peers and romantic partners serve as attachment figures. It seems that adults have a need for attachment bonds throughout their life span (Hankin et al., 2005; Hazan et al., 1999). The present study contributes and adds to these perspectives by investigating the importance of emotional bonds in family relationships. Neufeld's six dimensions ascend from the simple to the more complex and therefore the less mature a child, the more 'primitive' the attachment will be. Infants and toddlers will attach primarily by proximity and similarity, while a pre-schooler might seek approval (significance) and feelings of love and affection (feeling loved). Children entering school might feel close to a significant person and feelings of being known might be present (being known) (Neufeld et al., 2006). Family dynamics change over the course of a life cycle, thus influencing the attachment relationship which progresses to an emotional closeness and a sense of psychological intimacy as children develop (Neufeld et al., 2006). Walsh (2003) states that from a family life cycle perspective, family relationships go through transitions as they move along the life cycle and consequently families with adolescents enter a life cycle where boundaries shift; this could cause significant stress and challenges within the family.

Bowlby (1969, 1980) and Ainsworth et al. (1978) jointly developed the traditional attachment theory and researchers have measured attachment mainly by using Ainsworth's and Bowlby's style of attachment. Their theory focused mainly on the relationship between an infant and a primary caregiver where attachment is seen as an emotional bond between a mother and an infant (Ainsworth et al 1978; Bowlby, 1980; Waters et al., 2000). Humans are social creatures who exist in relation to one another and because the family is the first unit in which attachment develops, attachment relationships can be explored within the family unit (Andersson, 2005; Bynner, 2005). Although traditional attachment research provides ample descriptions of different styles of attachment, knowledge about the conditions needed in a family unit to establish secure attachment relationships is limited. For this reason the present study investigates attachment from a developmental perspective where  attachment can be investigated as a process in which the quality of the family relationships is taken into consideration as it contributes to healthy family function which promotes adolescent well-being (Neufeld et al., 2006).

## 2.4.     THE THEORETICAL FRAMEWORK UNDERPINNING THIS STUDY

### 2.4.1.     Overview

Gordon Neufeld, a clinical psychologist in private practice in Vancouver, British Columbia, Canada, is nationally recognised for his work on aggression and violence among children and youth. With his book *Hold on to your kids. Why parents need to matter more than peers* (Neufeld et al., 2006) Neufeld offers an understanding of children's development, as well as the obstacles to the healthy development of children. Maté, the co-author, (Neufeld et al., 2006) considers Neufeld to be the sole author of the book based on his background and experience as a psychologist. This book was written for parents and educators attending Neufeld's seminars and also for the broader public and deals with children from infancy to adolescence.

In my work as a psychologist I encounter numerous adolescents and their families who experience relationship problems. I was therefore drawn to Neufeld's relatively recent conceptualisation of attachment theory as he proposes a broader perspective of attachment without dismissing the traditional ways of evaluating attachment theory. Neufeld's attachment model lacks peer-reviewed studies and is not known among attachment researchers but has a wide following in popular literature. The lack of empirical research studies on this model aroused my interest in undertaking the present research study. Although this study does not focus on families in distress the disorder of urban South African families and the many challenges families face motivated me to better understand what the relational requirements for healthy family relationships are. South African researchers Theron and Theron (2011) examined successful black university students' ability to give meaning to poverty and its associated hardships through their attachment relationships with grandparents, older siblings, ancestors and/or God. Many of the participants reported that their belonging to an extended family network encouraged relationships. Participants in the present study consisted mostly of white adolescents from a middle class socio-economic background. The focus is therefore on healthy family functioning (Masten, 2001).

Neufeld proposes a broader approach to attachment. Previous researchers (Bowlby, 1980; Park, 2010) observed attachment as a process where individuals develop a style of attachment to improve safety and proximity to significant caregivers. Neufeld, on the other hand, explains attachment as a developmental process with six dimensions, namely (i) proximity, (ii) sameness, (iii) belonging and loyalty, (iv) significance, (v) feeling loved and (vi) being known to

the attachment figure (Neufeld et al., 2006). The quality of the family relationships and the atmosphere in the family unit are explored (Neufeld et al., 2006). They also lead to clear communication and make it possible for family members to discuss aspects of family life that are important in terms of beliefs, such as spirituality, transcendence and dealing with adversity. The present study indicates the connection between family attachment relationships enhances adolescent well-being and healthy family functioning as protective factor to support families in times of stress and adversity (see Section 2.4 above). It will neither distinguish between family structures nor examine the content of attachment theory as seen by Bowlby and Ainsworth, but will investigate the attachment experience as described by Neufeld's six dimensions of attachment. The six dimensions of attachment as they ascend from the simple to the more complex are subsequently discussed. Figure 2.1 depicts the key processes of attachment in the family unit and indicates the dimensions needed to promote well-being and secure attachment relationships (Neufeld et al., 2006).
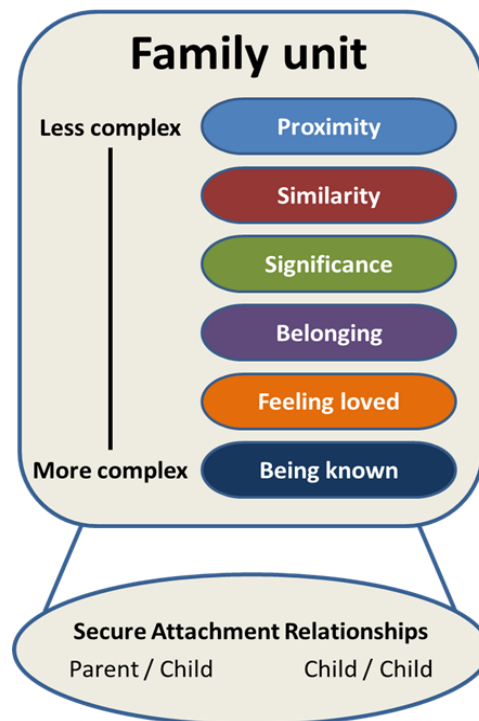


**Figure 2. 1: Key processes of the theoretical framework**

Neufeld's six dimensions ascend from the simple to the more complex. The less mature a child, the more 'primitive' the attachment will be. Infants and toddlers will attach primarily by proximity and similarity. While a pre-schooler might seek approval (significance) and feelings of love and

affection (Feeling loved), children entering school might come to feel close to somebody else and be known by them (Neufeld et al., 2006). These six dimensions become interwoven into one rope of connection and, although attachment begins in infancy, Neufeld views attachment relationships as a developmental process. However, his theory appears to lack empirical research and the present study therefore improves and expands on his attachment theory. The six dimensions of Neufeld's attachment theory will be discussed in more detail next.

## 2.4.2. Dimensions of Neufeld's attachment theory

### 2.4.2.1. Proximity

Research (Ainsworth et al, 1978; Bowlby, 1980; Kaitz et al., 2004) shows that the starting point of attachment theory is a belief in the biological drive for proximity in humans and other primates. Physical closeness or proximity is imperative to the relationship between young children and parents; without proximity children's need for intimacy, warmth, affection, safety, comfort and reassurance in times of stress and uncertainty cannot be fulfilled. During the first year of a child's life he/she will hold on to his/her parents through seeing them, hearing their voices, feeling their touch, smelling them and tasting the food he/she is fed through breastfeeding. This physical proximity is also a prerequisite for the development of attachment and close emotional bonds (Dewitte, De Houwer, Buysse and Koster, 2008; Neufeld et al., 2006). Adolescence is a developmental stage where autonomy is explored physically and psychologically. However, the availability of attachment figures remains critical. Adolescents' need for distance from their parents' does increase, but the availability and accessibility of parents in times of need are key features of a secure attachment relationship (Dubois-Comtois et al., 2013). Close family relationships and the quality of the family attachment relationships are indications of adolescents' well-being as family members who experience closeness are likely to feel greater attachment to the family (Diener et al., 2002).

Various observational studies have examined the relationship between adult attachment style and support seeking and support giving by using romantic partners as the sample group. Physical distancing/proximity-seeking behaviours were included in the measuring and the results showed that more securely attached individuals were able to seek emotional and physical proximity with their partners (Campbell, Simpson, Kashy and Rholes, 2001; Collins et al., 2000). One study involving couples at an airport showed that couples that were separated at the airport experienced distress and anxiety as the partner was unavailable for a period of time.

As a result the separated couples required more proximity to regain feelings of security (Dewitte et al., 2008). This study revealed that couples seek more support from their partners on days when they experience distress (Dewitte et al., 2008). Numerous other studies have shown that individuals with secure attachment exhibit more proximity-seeking behaviours (Dewitte et al., 2008) and provide more support in a distress situation than insecure attached individuals do (Collins et al., 2000; Simpson, Rholes and Nelligan, 1992; Simpson, Rholes, Orina and Grich, 2002). Securely attached individuals are more comfortable with interpersonal closeness (Dewitte et al., 2008; Kaitz et al., 2004) and present openness when expressing emotions (Mikulincer and Shaver, 2012).

Mothers are mainly seen as the primary caregiver and little is known about the fathers' attachment roles. Attachment research literature is filled with references to various attachment bonds with mothers; the present study therefore proposes to explore not only mothers' or fathers' roles in attachment relationships, but also the role of the family as a unit and therefore examining attachment from a systemic point of view (Bowlby, 1980; Ainsworth, 1973; Ainsworth et al, 1978; Bick, Dozier and Perkins, 2012).

### 2.4.2.2.     Similarities or sameness

In Chapter 1, Section 1.3, I made the assumption that attachment is a basic human requirement for individuals to function in relationships and that all humans experience a form of attachment regardless of their colour, race, language or socio-economic status (Ng et al., 2005; Orthner et al., 2004). The requirements include the need for food, shelter and clothing, followed by a sense of safety and security, attachment and belonging (Kaslow, 2008), and freedom from fear and persecution (Cassidy and Mohr, 2001). According to Maslow's hierarchy (1968), basic needs are: being valued and respected, being loved and loving in return, being free to worship and being able to obtain a good education, as well as being free to pursue self-actualisation and self-fulfilment (Kaslow, 2008; Maslow, 1968). Individuals relate to people they can identify with (Byng-Hall and Stevenson-Hinde, 1991; Torgersenet et al., 2007) and the quest for sameness plays an important role in shaping the personality and behaviour of children (Neufeld et al., 2006). Children experience satisfaction when similarities and likeness between themselves and others are noticed, whether it is the same sense of humour, same preference in food or the same taste in music (Neufeld et al., 2006).

Toddlers experience attachment as the similarities or sameness between themselves and family members that shape the personality and behaviour of children and create a sense of likeness between family members (Byng-Hall and Stevenson-Hinde, 1991; Torgersen et al., 2007). Children imitate their parents and also play with their parents' belongings – hats, shoes, keys, cell phones, glasses etc. Children imitate their parents' speech and in this way hold on to them (Neufeld et al., 2006). Family relationships influence therefore one's sense of self as parents provide children with their first form of socialisation. The social contributors to our sense of self shift from parents to peers and eventually to romantic partners (Schwartz, Zamboanga, Luyckz, Meca and Ritchie, 2013). Marcia (2006) indicates that identity is a sense of whom one is, based on who one has been and who one can imagine oneself to be in future. One's attachment history therefore serves as the foundation for identity formation as identity formation is less an individual accomplishment than a co-construction of an individual with significant others (family) (Pittman, Keiley, Kerpelman and Vaugn, 2011). In addition, Erikson (1970) suggests that grandparents can be important figures with whom individuals can identify in demonstrating sameness and family continuity. Family members that perceive and feel close to other family members as seen in studies between generations where adolescents experience feelings of sameness with their grandparents when they are emotionally close to them are likely to be more attached to the family unit and identify more with the family (Romano, 1997).

### 2.4.2.3. Significance

Humans feel closer to people who are warm and accepting of who they are and seek somebody who favours and ensures closeness and connection (Neufeld et al., 2006; Ryan et al., 2007). Children may feel hurt and unwanted if they do not gain the family's favour, acceptance or approval and consequently they may not feel significant (Neufeld et al., 2006; Ryan et al., 2007). Relationships deepen when individuals experience love expressed through words and actions, or appreciation for the unique person that they are (faults and all). When individuals feel secure in their love relationships (parent-child, spousal, friendships) they feel loved and accepted. Children who feel this deep attachment with their parent(s) tend to feel more content and confident, even when they are not in their parents' physical presence. Adolescents who feel disconnected with their parents may seek to find significance through social media sites such as Facebook or Twitter (O'Keefe and Clarke-Pearson, 2011). However, this is superficial significance as social media contacts, by the impersonality of their very nature, do not accept you just the way you are. Your social media acquaintances do not know the real you. Individuals long for the approval of their family and the resulting sense of significance creates closeness to

and connection with family members (Neufeld et al., 2006; Ryan et al., 2007). Family members that experience that they are significant to the family are likely to experience greater well-being.

### 2.4.2.4. Belonging and loyalty

The desire to belong is seen as a basic human need and is rooted in early attachment systems that influence individual development (Maslow, 1968, Ryan et al., 2007). Humans need interpersonal bonds, interactions with others that provide security, safety, affection, companionship and well-being (Maslow, 1968). The need to become oneself includes the need to belong and to be the same. By the third year, a child develops a sense of belonging and children refer to parents as "my mommy" or "my daddy." Loyalty follows belonging closely and children will try to please their parents when they say: "My daddy is the strongest" or "My mommy knows the most" (Hagerty et al., 1992; Neufeld et al., 2006). Loyalty can be seen as a strong feeling of allegiance and support. Children need to feel that they matter, that they are important and that they are special in their parents' eyes (Hagerty et al., 1992; Tabane and Human-Vogel, 2010). To belong therefore means to have the attribute of being valued, being needed or being important with respect to other people, groups or environments (Collins and Feeney, 2004; Ryan et al., 2007). A study by Hagerty, Williams, Coyne and Early (1996) found that a sense of belonging is concerned with the perception of self as integrated within an interpersonal system.

Interpersonal relationships are important to well-being and studies have shown that a limited sense of belonging could result in higher levels of anxiety and associated disorders (Hagerty et al., 1992; Collins and Feeney, 2004; Wagner, Silverman, and Martin, 2003) such as suicidal tendencies and depression (Bailey et al., 2005; McLaren et al., 2007; Waite et al., 2006). For adolescents, security no longer depends on their parents' accessibility but rather on the assurance that their parents are committed to them despite the fact that they are free from parental scrutiny (Feeney, 2006; Weiss, 1982). Studies show that secure attached adults seek more support from partners on days when they are distressed, and thus early parental interaction and life experiences within the family might be related to the development of an adult sense of belonging (Bartholomew and Horowitz, 1991; Collin et al., 2012; Hagerty, Williams and Oe, 2002).

### 2.4.2.5.　　　Feeling loved

Relationships within the family are central and influence an individual's development and sense of well-being (Fonagy, 2001), hence the need for a healthy loving relationship between parent and child (Bretherton, 1992; Neufeld et al., 2006). Research has showed that disruptions in the developing attachment relationship between mother and child have short- and long-term repercussions for the psychological and emotional well-being of the developing child (Bowlby, 1980; Edwards and Liu, 2002). In a family where children feel supported, loved and cared for the individuals can tolerate more physical separation and yet hold the parents close (Black et al., 2006; Neufeld et al., 2006). Children fall in love with their parents and give them their hearts; they draw flowers and hearts and want to marry their parents and live with them forever (Neufeld et al., 2006).

Family relationships and dynamics change with adolescence; however, the relationship between parents and children continues to be of the utmost importance. Research has indicated that poor communication and poor problem-solving – symptoms of a dysfunctional family relationship – in families increase suicidal tendencies, substance abuse and mental health problems (Atwine, Cantor-Graae and Bajunirwe, 2005; Baptist et al., 2012; Brennan et al., 1998; Conger and Conger, 2002; Finzi et al., 2001; Maunder and Hunter, 2001; Neufeld et al., 2006; Wagner et al., 2003). The importance of feeling loved and having relationships characterised by trust, commitment, satisfaction and interdependence (Collins et al., 1990; Park, 2010; Feeney, 2006; Kirkpatrick and Hazan, 1994) consequently emphasises the importance of secure attachment relationships within the family unit. Loving family relationships therefore advance adolescent's well-being.

### 2.4.2.6.　　　Being known

The final dimension of attachment is to be known on a very deep psychological level. To share oneself at this level requires deep trust, to be open and exposed and to share deep desires and dreams. Being known requires being vulnerable, hence Gordon Neufeld's (Neufeld et al., 2006) statement that if parents "know how to be with their children and who to be for their children, they will need less advice on what to do for their children" (p 140). To experience a deep attachment and connection suggests vulnerability when sharing one's deepest concerns and insecurities about oneself (Buist et al., 2001). There is no closeness that can exceed the sense of being known and still being liked, accepted, welcomed and invited to exist (Ardelt, and Day,

2002; Buist, Dekovic, Meeus, Marcel Aken, 2004; Neufeld et al., 2006; Sander, 2002). Family members who know one another on a deep psychological level should experience greater family attachment which supports the family in times of stress and adversity.

## 2.5. ATTACHMENT IN FAMILIES

### 2.5.1. The universality of attachment

The need for close attachment relationships is considered as a universal phenomenon (Knee et al., 2013; Ryan and Deci, 2000; Ryan et al., 2005) and a basic human requirement to be able to function in relationships. All humans experience a form of attachment regardless of their colour, race, language or socio-economic status (see Chapter 1, Section 1.3) (Ng et al., 2005; Orthner et al., 2004). Humans are unique among life forms on this planet and much regarding our development remains a mystery. The process of evolution involves a series of natural changes that cause species to arise and adapt to the environment (Brem, Ranney, Schindel, 2003; Emlen, 1995). Our survival depends on our intrinsic tendency to form attachments that will promote our survival and reproduction (Brem et al., 2003; Emlen, 1995; You and Malley-Morrison, 2000). Attachment has evolutionary roots and can be seen as trans-species as animals attach by imprinting. New-born ducklings imprint on the mother duck and will follow her around until they are grown into mature ducks. In the absence of the mother duck, the ducklings will follow or imprint on the nearest moving object. This basic biological process ensures that adolescent siblings are attached and therefore turn towards a source of warmth, contact and nurturing (Maestripieri, 2001).

Van Ijzendoorn and Sagi (1999) report that although children may vary in the pace and timing of their development, attachment bonds are formed similarly in all cultures or family contexts. These researchers found similar distributions of attachment classifications (i.e. *secure, avoidant, anxious*) across different cultural environments, which confirms my assumption that people from different cultures attach the same way. However, there are also researchers (Doherty, Hatfield, Thompson and Choo, 1994; Moreira, Bernardes, Andrez, Aguiar, Moleiro and de Fatima Silva, 1998; Soares, Fremmer-Bombik, Grossman and Silva, 2001) that report the opposite and therefore future studies that control for cultural difference should be conducted.

Mizuta, Zahn-Waxler, Cole and Hiruma (1996) conducted a study in which Japanese and United States four- and five-year-old children and their mothers were studied in situations designed to examine attachment-related behaviours and feelings. The researchers examined separation

and reunion behaviours, conversations about separation and child-rearing patterns in relation to culture, gender and internalising symptoms. They found no evidence of cultural differences in attachment behaviours, suggesting that although culture, social and environmental forces shape what we are, security and the need to be loved is a universal phenomenon. Consequently, the literature supports my assumption that there will be no differences in the data concerning attachment for people who are from different language, cultural or ethnic groups. DiTommaso, Brannen and Burgess (2005) investigated the universality of attachment in family, romantic and social relationships by comparing 223 Canadian home students with Chinese visiting students. Their findings support the universality of attachment, but also indicate that the expression of attachment may differ among cultures and genders.

However, there is an extensive body of research demonstrating that while attachment is present across cultures and contexts, the pathways to its manifestation and what it looks like do indeed differ across cultures and contexts (Arbona and Power, 2003; Ruiz-Casares, Guzder, Rousseau and Kirmayer, 2013). Individuals in a collectivist cultural context emphasise being connected with the environment in order to have social connection across generations, spirituality and cultural heritage. Individualistic societies instead focus more on self-esteem and individual achievements (Ruiz-Casares et al., 2013). Traditionally, attachment was viewed within the dyadic relationship which in itself is a Western concept that does not leave room for the fact that attachment is not only to another person, but can also be to a group such as the family, or a community. The present study focuses on the relationships and attachment to a group and thus expands the Western concept of attachment to have greater relevance to more collective societies where ties to a particular group are viewed as important.

### 2.5.2. Family cohesion

Family cohesion is related to and measured by the strength of attachment in families as attachment refers to a close, enduring affectional bond or relationship between people. The presence of these bonds promotes human development throughout the life span by providing emotional support and a sense of closeness and belonging (Bowlby, 1969/1982; Neufeld et al., 2006). Because the family is a fundamental unit and cornerstone of society the stability and cohesiveness of society as a whole depends on the unity and strength of the family (Haralambos and Holborn, 2000). Emotional closeness with family members influences an individual's well-being and social adjustment, and is important in the development of interpersonal skills and relationships. The quality of the attachment relationships influences the

family cohesion and is therefore significant to the present study. There is also a strong correlation between family cohesion and well-being; in fact, family cohesion is perceived as a possible predictor of well-being in the family (McCarthy, Lambert and Seraphine, 2004; Zabriskie et al., 2001).

In the South African context a family that consists of both parents is the privilege of only a minority of children. The Unites Nations Children's Fund (UNICEF) estimates that by 2015 almost 5 700 000 children will have lost one or both parents to AIDS, 3 100 000 children under 18 will be maternal orphans and 4 700 000 will be paternal orphans. It is predicted that South Africa will have 2.3 million children orphaned by 2020 due to AIDS (Cluver et al., 2007). Research suggests that these orphans will be exposed to a multitude of stressors which include depression (Baptist et al., 2012), suicidal tendencies (Wagner et al., 2003), anxiety (Atwine et al., 2005; Conger et al., 2002; Maunder and Hunter, 2001) and relationship problems within the family (Finzi et al., 2001). These orphaned children are doubly deprived – not only are they deprived of material resources, but also of the spiritual and emotional resources that families are expected to provide for their children. Orphans are deprived of the secure emotional base from where they feel safe to explore and experience the world (Ackard et al., 2006; Lucia et al., 2006). I acknowledge that the sample for the present study did not include participants with HIV/AIDS and the ramifications of dealing with HIV/AIDS and its effects on families have not been taken into account. Therefore future studies are needed to determine the impact of such adversities on families.

Other challenges that urban South African families are confronted with include poverty, unemployment, absent fathers, single-parent households, illiteracy, domestic violence, substance abuse, loneliness, depression and gender inequities (Baptist et al., 2012; Bowlby, 1984; Green Paper on Families, 2011; Holborn et al., 2011; Wagner et al., 2003). These challenges all contribute to family environments that do not provide a sense of security and availability of family members to one another and thus they spawn dysfunctional family relations. Research shows that such dysfunction can deteriorate into the detachment of individuals from the family (Ainsworth, 1989; Brennan et al., 1995; Collins et al., 1990; Mikulincer et al., 1995). Detachment from the family can thus be associated with a lack of parental support and acceptance, as well as a low family connection or cohesion (Lucia et al., 2006; McArdle, Wiegersma, Gilvarry, Kolte, McCarthy, Fitzgerald et al., 2002; Schindler et al., 2005). Another result of the challenges mentioned above is that many South African families do not experience emotional bonding and lack open communication between family members

(DeFrain et al., 2007; Green and Werner, 1996; Segrin and Flora, 2005). Individuals from such families experience insecure attachment relationships with family members to the extent that they experience an attachment void which leaves them vulnerable to addictions, depression, eating disorders, violence and personality disorders (Brennan et al., 1995; Collins et al., 1990; Finzi et al., 2001; Mikulincer et al., 1995; Neufeld et al., 2006). South African researchers furthermore confirm the negative impact of dysfunctional family relationships on interpersonal relationship functioning (Green Paper on Families, 2011) and imply that secure attachment can shield the effect of difficult family experiences (Crowell, Trebouz and Broakmeyer, 2009). Families consist of interconnected and interdependent individuals who influence each other (Van Velsor and Cox, 2000). Our family experiences shape our expectations of the world and teach individuals skills that enable them to function in a formal setting such as school or the workplace (Nieto, 2004). Other researchers maintain that strong family ties give individuals a sense of well-being that influences later relationships (Bowlby, 1982; Fonagy, 2001; Neufeld et al., 2006). The literature highlights that family attachment is critical in the development of children; families are the source of love, protection and strength for their members, all of which act as a shield against the impact of family difficulties (Ackard et al., 2006). Taking all the above into consideration, I want to emphasise that the present study focused on healthy family functioning and not on families in distress (Masten, 2001; Orthner et al., 2004).

Family cohesion is considered important in family functioning as it is characterised by shared affection, support, helpfulness, cooperation, interdependence and caring (Berger-Schmitt, 2000; Rivera, 2007; Stevens et al., 2006; Stewart, 2001). As attachment is one of the processes that contribute to family cohesion, the significance of the findings of this study will pertain to attachment relationships (see Section 2.4). Family cohesion is a dimension of family life and can be understood as the extent to which family members feel emotionally close to each other, as well as finding a balance that supports individual independence and family togetherness (Stevens et al., 2006; Zabriskie et al., 2001). The more cohesively a family functions, the better are the communication, support, helpfulness, cooperation, interdependence and level of care between family members (Stewart, 2001). Family cohesion is the degree of emotional connection to and togetherness or closeness of family members (Ackard, Neumark-Sztainer, Story and Perry, 2006; Olson, McCubbin, Barnes, Larsen, Muxen, and Wilson, 1989).

This research is inherently South African and therefore it is necessary to consider the link of Neufeld's attachment theory to South African families. South African researchers Theron and Theron (2011) examined successful, black university students' ability to give meaning to poverty

and its associated hardships through their attachment relationships with grandparents, older siblings, ancestors and/or God. Many of the participants reported that their belonging to an extended family network encouraged relationships. Although participants in the present study consisted mostly of white adolescents from a middle class socio-economic background, the assumption (see Chapter 1, Section 1.3) that attachment is a basic human requirement for individuals to function in relationships (Ng et al., 2005; Orthner et al., 2004) aligns with a South African context. Even though families with low socio-economic status often struggle to meet their needs and accomplish objectives, there is also evidence that these families often rely on each other. Studies of children from poor and low-income families show that they do have the ability to achieve academically and form social relationships, despite their limited economic resources (Crosnoe, Mistry and Elder, 2002; Werner and Smith, 1992). Conger and Conger (2002) found that when lower income families provide warmth and nurturing, structure and emotional support to their children they function competently. The cohesion of low-income families is therefore a source of strength. Some low-income families sustain family rules; promote family celebrations, spiritual connections and tradition. Therefore, I argue that financial circumstances are not sufficient to explain the ability of families to thrive in difficulty (Murry, Brody, Brown, Wisenbaker, Cutrona and Simons, 2002). When the relationships in families are strong, they help to buffer the effects of economic distress on the well-being of individuals in particular adolescents. Although the participants in the present study consisted mostly of white adolescents from a middle class socio-economic background, the assumption (see Chapter 1, Section 1.3) that attachment is a basic human requirement for individuals to function in relationships (Ng et al., 2005; Orthner et al., 2004) aligns with an urban South African context.

Some researchers focus on family structure and its contribution to cohesion (Demuth and Brown, 2004; Sampson and Laub, 2006). However, the focus of the present study is on understanding family attachment and its impact on adolescents' well-being. Emotional bonding between family members can be located on a scale of high to low functioning. Families high on the functioning scale are able to balance separateness and togetherness (Olson, 2000). Family cohesion also acts as a source of emotional support; hence emphasis is placed on close relationships and the ability to face challenges together in troubled times (Arbona et al., 2003; Bell, Allen, Hauser and O'Conner, 1996; Bradford and Lyddon, 1994; Lucia and Breslau, 2006; Nickerson and Nagle, 2004). It is important to indicate that family attachment in the present study is viewed as a feature of healthy families. This presents a limitation to this study which I

acknowledge as families that experience adversity may achieve different results. Future studies that include a sample of families that experience adversity should be investigated.

### 2.5.3.          Developmental perspective of attachment

Attachment relationships have been studied in infancy (Ainsworth, 1989; Bowlby, 1969, 1980) childhood and adulthood (Hazan et al., 1987; Hazan et al., 1999). These studies have explained the role of attachment across different stages of a person's life (Ainsworth, 1991; Fraley, 2002; Johnson, 2004; Waters et al., 2000). Bowlby (1969) considered attachment to extend from "the cradle to the grave", hence attachment relationships influence infant, child and also adult adaptation, self-esteem and coping mechanisms (Bowlby, 1979; Brennan et al., 1998). Attachment theory proposes that if a person experiences a sense of secure attachment, that person is likely to encounter satisfaction of his or her basic psychological needs for autonomy, competence and relatedness (Deci and Ryan, 1985, 2000).

Attachment relationships provide adolescents with emotional support and a feeling of comfort. The quality of relationships in the family that leads an adolescent to experience attachment to his or her family can be the result of positive relationships. The adolescent attachment relationship with the family is re-defined and re-evaluated as the adolescent experiences developmental changes. These changes occur on a social, cognitive and emotional level (Dubois-Comtois et al., 2013; Rosenblum, 2006). One's attachment to family acts as a protective resource of adolescent well-being (Walsh, 2003; Wong, 2012). Although adolescence is a period of separation, parents remain influential in many domains as they continue to transmit their values and socialisation goals to their children, thus affecting adolescents' values, behaviours and social skills (Arnold, Pratt and Hicks, 2004; Sillars, Koerner and Fitzpatrick, 2005).

Empirical studies have shown that family attachment is positively related to social skills such as negotiation, giving and receiving criticism and, giving feedback on others' performance (Bell, Avery, Jenkins, Field and Schoenrock, 1985; Rice, 1990). Erikson (1968) mentions that it is during this stage that individuals develop a more mature sense of identity and choose to become autonomous and independent individuals, while remaining in relationships with parents and siblings. The desire for a more independent and autonomous life emerges (Segrin and Flora, 2005). In this period of transition adolescents require positive family connections and

secure emotional relationships from where they can explore and experience the world (Andersson, 2005; Bynner, 2005).

The need for autonomy does not supplant the need for dependence on or attachment to others; on the contrary, Ryan and Lynch (1989) discovered that autonomy is related to attachment relationships that enhance adolescent well-being. Although the relational network of adolescence reaches well beyond the family into extra-familial domains (Liddle and Schwartz, 2002) and although there may be physical distance between family members, adolescents still have the desire for security and a support base (Hill, Fonagy, Safier and Sargent, 2003). They might explore autonomy physically and psychologically, but the availability of attachment figures is important as autonomy does not develop in isolation but grows while the adolescent is still connected to the family. Infants seek proximity and comfort; adolescents seek proximity in the form of advice, hence the necessity for more open communication during this time of transition and change (Arnold et al., 2004; Sillars et al., 2005). Research indicates that secure attachment relationships contribute to family togetherness and emotional closeness are central. The experience of warmth, affection and love provides meaning to the relationship and individuals experience a sense of togetherness where fears and worries are defeated by family cohesion, care and acceptance (Mullin et al., 2008; Neufeld et al., 2006). Secure attachment relationships lead to adolescent well-being. Attachment relationships therefore act as a protective factor to support families when they are confronted with adversities (Schore, 2001).

Secure attachment relationships provide a framework in which adolescents feel safe and more secure to develop social skills (Arbona et al., 2003). Adolescents who are securely attached to their family unit display a higher life satisfaction with regard to self-esteem, academic success, interpersonal functioning and self-efficacy, and lower psychological distress (Allen, Buist and Kagitcibasi, 2001; Arbona et al., 2003; Bell et al., 1996; Bradford et al., 1994; Nickerson et al., 2004). The attachment relationship in the family also affects other social relationships, such as romantic relationships, and intimate friendships (Allen et al., 2001; Engels, Finkenauer, Dekovic and Meeus, 2001; Meeus, Oosterwegel, Vollebergh, 2002; Overbeek, Vollebergh, Rutger, Engels and Meeus, 2003). Thus although friends and romantic partners may replace the parents as primary attachment figures, this does not imply that adolescents' attachment to parents disappears (Meeus et al., 2002; Overbeek et al., 2003). Researchers have argued that attachment functions are transferred from parents to romantic partners and therefore the family attachment relationship provides a set of expectations about how to interact with others and how to interpret the needs and feelings of others (Hazan and Shaver, 1994; Overbeek et al.,

2003; Sroufe et al., 1999). Some of the main themes discussed above include family attachment, emotional climate and cohesion. Healthy attachments in families are a feature of healthy family functioning.

## 2.6.        CONCLUSION

This review of the literature has dealt with attachment relationships which provide adolescents with emotional support and a feeling of comfort. The quality of relationships in the family that leads an adolescent to experience attachment to his or her family can relate to adolescent well-being. Healthy family functioning enhances attachment, which in turn promotes adolescents' well-being (Neufeld et al., 2006; Walsh, 2003). Individuals cannot be understood in isolation as a family is an emotional unit. In Chapter 2 I explored the existing literature in terms of attachment theories and identified a broader perspective by examining attachment and the role it plays towards creating a sense of well-being. This framework shows that secure attachment relationships are determined by their quality, thus advocating healthier family functioning (Neufeld et al., 2006).

# CHAPTER 3
# RESEARCH DESIGN AND METHODOLOGY

## 3.1.        INTRODUCTION

The critical realistic perspective of the present study is based on the assumption that a possible reality is where things are known without being experienced (Bhaskar, 1986, 1998). For critical realists the world is composed not only of events, states of affairs, experiences, impressions and discourses, but also of underlying structures, powers and tendencies that exist, whether or not detected or known through experience and/or discourse. This study investigates the perceived experiences and quality of relationships within the family unit by answering the primary research question, namely: What are the relational requirements of attachment in adolescent families?

An exploratory mixed method research approach was selected as it allows for research methods that value both qualitative and quantitative research methodologies. The development of the new Family Attachment Scale (FAS) in terms of scale development, data collection and reliability and validity are discussed in the next section. The correlational analyses as well as the General Linear Model (GLM) are also addressed in this chapter.

## 3.2.        METHODOLOGICAL PARADIGM: CRITICAL REALISM

The approach mostly associated with mixed method research is pragmatism which focuses on the problem to be researched and the consequences of the research (Teddlie et al., 2009). A pragmatic approach deals with research in a sensible and realistic way that is based on practical rather than theoretical considerations. Pragmatism does not expect to find links or truths but merely aims to interrogate a particular question, theory or phenomenon (Creswell, Plano Clark, Gutman and Hanson, 2003). Alternatively, the research paradigm chosen for the present study is a school of philosophy that originated with Roy Bhaskar in the 1970s and is a set of beliefs that describes the way the world can be seen. The word 'critical' in critical realism relates to what exists (ontological) in terms of epistemological statements (what can be known or understood). The realism side of the theory focuses on the existence of real mechanisms (underlying structures or causes) which shape events. Critical realism focuses on ontology and obtaining knowledge of the world. Through a process of critical thinking and questioning different layers of understanding of the world transpire. It is a way of breaking down the

complexity of the real world by means of a framework which is guided by a set of beliefs about the world (Bhaskar, 1986, 1998; Denzin et al., 2005; Hedlund-de Witt, 2012). Critical realism states that knowledge (epistemology) is different from being or existence (ontology). There is a reality (unobservable structures) that exists independent of human thought. Critical realists believe that unobservable structures cause observable events; therefore the social world can be understood only if people understand the structures that generate events. In a scientific context, it allows the researcher to distinguish between the event and the structure that causes it (Bhaskar, 1986,; 1998; Denzin et al., 2005; Hedlund-de Witt, 2012). Therefore, to conduct research, the situation is necessary (the family unit) and the results that are caused by the underlying laws and mechanisms (attachment relationships) are needed.

Bhaskar initially proposed his philosophical views as 'transcendental realism' and his extension of these to the social sciences as 'critical naturalism.' Critical realism evolved from the expressions 'transcendental realism' and 'critical naturalism', with the critical component similar to a 'transcendental' notion of ontology that moves beyond what is immediately evident or experienced (Bergin et al., 2008). Bhaskar (1988) recognised the existence of reality but emphasised that there are 'structures' and 'mechanisms' that exist beyond empirical reality which are not knowable. He argued that science only offers an angle of reality selected specifically for its scope to explain a possible reality where things are known without being experienced (Bhaskar, 1986, 1998).

Roy Bhaskar distinguishes between three domains/layers of reality: the empirical, the actual and the real. The domain of empirical includes observable experiences, the actual includes events generated by structures and mechanisms, and the domain of the real includes structures that generated the actual events (Bhaskar, 1986; Creswell et al., 2011; López, 2003; McEvoy et al., 2006; Zembylas, 2006). Mechanisms or structured things such as attachment processes possess causal powers which can determine the actual phenomena of the world (Lawson, 1997). Critical realism's view on causality is not about a relationship among events but rather realising the process and conditions that cause the event (Volkoff, Strong and Elmes, 2007). Critical realism views reality as an open and complex system where other mechanisms and conditions also exist and therefore we should attempt to identify the conditions (Neufeld's attachment dimensions) in which mechanisms are experienced (McEvoy et al., 2006; Volkoff et al., 2007; Zembylas, 2006; Zachariadis, Scott and Barrett, 2013). Critical realism wishes to understand and explain why things are the way they are, to theorise the structures and

mechanisms that shape observable events. It expects that in order to understand a particular situation a variety of research methods will be required (Bhaskar, 1986, 1998).

Critical realism's goal of research is to develop a deeper level of explanation and understanding of a specific phenomenon (attachment). In a critical realist paradigm the world comprises not only of events, states of affairs, experiences, impressions and discourses, but also underlying structures, powers and existing tendencies. A critical realist paradigm defines reality as an experience, regardless of whether the external realities are completely known or understood. Therefore, the world exists independently of our knowledge of it or our ability to recognise phenomena (Bergin et al., 2008). The underlying reality provides the conditions of actual events and experienced phenomena (Bergin et al., 2008). Attachment is thus experienced by adolescents regardless of whether the external realities are completely understood or defined. As mentioned in Chapter 1, critical realism permits the researcher to explain the multi-layered complexity of attachment where the world consists of events, experiences (interviews), impressions and discourses, with existing underlying structures and mechanisms (the development of statements that represent the experience) that account for the phenomenon of attachment (Mingers, 2003).

## 3.3. RESEARCH DESIGN AND METHODOLOGY

### 3.3.1. Exploratory sequential mixed method design

A mixed method design provides more depth and a richer understanding of the relationship between constructs (Creswell, 2003, 2009). In the case of the present study, Neufeld's attachment dimensions can be measured subsequently through the use of an existing instrument (Trait Well-Being Inventory) and the development of a new instrument (Family Attachment Scale) first to obtain qualitative data and results from a sample of a population and then, secondly, to use them to obtain statistical, quantitative data and results (Creswell et al., 2003).

Mixed method research refers to the combination of qualitative and quantitative research and can be arranged in four major designs, *triangulation*, *explanatory*, *exploratory* and *embedded* (Creswell et al., 2011). The exploratory design explores a phenomenon qualitatively before measuring or testing the phenomenon quantitatively. This design is often used when developing an instrument as it commences by exploring events during a qualitative phase and then builds towards a secondary quantitative phase (Creswell, 2003, 2009). Data are collected sequentially,

which indicates the collection and analysis of, first, qualitative and then quantitative data, as well as the integration of the data at different stages of the research process (Creswell et al., 2003). The purpose of the exploratory sequential design is to use the qualitative findings in the first phase to build towards the quantitative phase which includes the development of a new scale in the second phase (Creswell, 2003, 2009).

During the qualitative phase a sample is identified and data are collected through semi-structured interviews. The analysis of the qualitative data entails the organisation of the data according to themes that identify a specific dimension of Neufeld's attachment model (Neufeld et al., 2006). Qualitative data were collected first as Neufeld's attachment dimensions are not known and the purpose of these interviews was to determine the participants' understanding of the six dimensions and whether all six dimensions exist and can be measured. As indicated in the literature (Marshall, 1996; Dworkin, 2012), I took into account the quality of the participants' answers (see Figure 4.2), the study design (sequential exploratory) and weighting (qual + QUAN) of the study before the decision was made to interview only two participants. The qualitative results indicated rich answers from each participant and as the aim of the present study was to develop an instrument in the quantitative phase, the qualitative sample size was not extended. The exploratory interviews revealed the participants' perspective on family attachment and suggested acceptable language for phrasing the items in the second quantitative phase. The aim of the second phase was to create an initial item pool, and to analyse these items statistically. This would be done first with a small sample pilot study and then with a larger sample in the main study. Emphasis was placed on the quantitative phase. The pilot study identified weaknesses in the proposed main study and avoided misleading, inappropriate or redundant items. The pilot testing of the new Family Attachment Scale helped to ensure that the new instrument can be properly used and that the information obtained is consistent and reliable (Polit, Beck and Hungler, 2001).

## 3.4. SCALE DEVELOPMENT

DeVellis's (2012) guidelines on scale development highlighted that the main objective of scale development is to measure phenomena that cannot be assessed directly but exist because of our theoretical knowledge of the world. Therefore the new Family Attachment Scale (FAS) was developed by firstly investigating and defining each of the six dimensions of Neufeld's attachment theory clearly by drawing on existing literature. The next step was to develop an initial set of items that describes a specific dimension in a clear, concise manner that reflects the

scale's purpose. The quality of the item pool was not taken lightly and a careful approach to generate items was followed (DeVellis, 2012).

The initial item pool, which consisted of between 13 and 17 items per dimension, was then subjected to revision by a panel of experts (Appendix I). The panel consisted of three experts: expert one is an associate professor in Educational Psychology who specialises in qualitative methodology; expert two has worked for ten years as a counsellor, trainer and therapist and also co-ordinated and led several programmes for the ETDP SETA; and expert three is a Grade 11 student at one of the participating schools – she represents the eventual participant pool because from a developmental level it is essential to ensure that the items are understood by children in her age range. Panel members received descriptions (Appendix H) of each construct and their review (Appendix I) involved the analysis of content validity, clarity, conciseness, grammar, reading level and redundancy (Worthington and Whittaker, 2006). Care was taken to confirm that expert three was familiar with the jargon. She did not, however, indicate any uncertainty about the linguistic aspect of the items. In addition, no panel member suggested any changes to the wording of items. When two panel members agreed, the decision was taken in favour of the majority. Panel members received coffee and cake vouchers as compensation for their time.

Next, 72 items were piloted, followed by an item analysis to gather construct-related validity evidence of the internal consistency of the scale, using Cronbach's alpha coefficient. Construct-related validity was supported by investigating the convergent validity of the scales. Convergent validity evidence entails examining the extent to which expected patterns of correlation between study variables support theoretical assumptions about the constructs. The Trait Well-Being Inventory (TWBI) measures construct validity for the FAS with regard to well-being. Factor analysis was also applied in the main study for data reduction and for refining the constructs (DeVellis, 2012).

## 3.5. DATA COLLECTION STRATEGIES

### 3.5.1. Participant selection and identification

#### 3.5.1.1. Qualitative phase

The participants in the qualitative phase were two (male = 1; female = 1) students in Grade 11 and 17 years old that attended one of the two participating government schools in Pretoria. Both

participants were white and indicated that their parents were married. The participants were selected by the use of convenient multi-stage random sampling, which included random selection according to grade, class and then participant. Gender and race were not regarded as a core variable as the focus of the present study is on the experience and quality of relationships within the family unit and not on race or family structure. The qualitative sample was smaller than expected as I was guided by the rich quality of the participants' answers. Data saturation occurred after two interviews with the participants based on the fact that no new information was obtained (Fusch, Lawrence and Ness, 2015). Permission was obtained from the Gauteng Department of Education (Appendix B), as well as informed consent from the parents of the participants (Appendix A) and assent from the participants (Appendix C).

### 3.5.1.2.    Quantitative phase

The participants selected for the quantitative phase consisted of Grade 11 and 12 students of all races and both sexes between the ages of 16 and 18 years attending one of the two participating government schools in Pretoria. They were identified by means of convenient multi-stage random sampling for the pilot study and the main study. For the pilot study 26 participants were selected and for the main study 208 participants were selected. Permission was granted by the Gauteng Department of Education (Appendix B) as well as informed consent from the parents of the participants (Appendix A) and assent from the participants (Appendix C). Participation was voluntary and participants could withdraw from the research at any point. The participants completed a questionnaire containing an initial item pool of the Family Attachment Scale (FAS) as well as the Trait Well-Being Inventory (TWBI). The latter was included for validity purposes (see Chapter 1, Section 1.9.4.2).

### 3.5.2.    Data collection process

### 3.5.2.1.    Qualitative phase

The qualitative phase consisted of face-to-face semi-structured interviews with two participants from the participating schools. These interviews allowed for flexibility during the interview process and advancement into an in-depth understanding of attachment relationships (Creswell, 2003, 2009; Rapley, 2004). The duration of the interviews was approximately two hours and Neufeld's six dimensions of attachment were used as a framework of reference (Neufeld et al., 2006). The interviews were taped and thereafter transcribed verbatim (Appendix G). The exploratory nature of the research design aimed at exploring how participants experienced

attachment with their family members. Qualitative data were collected as Neufeld's attachment dimensions are not known and the purpose of these interviews was to determine the participants' perspective of family attachment and their understanding of the six dimensions as indicated in the literature (Marshall, 1996; Dworkin, 2012). In addition, the exploratory interviews obtained the participants' language patterns and phrases that were used to develop items. As mentioned in Section 3.2, the participants' experiences (as related in the interviews) enabled me to explore the multi-layered complexity of attachment, which assisted in the development of statements that represent experiences that account for the phenomenon of attachment (Mingers, 2003).

### 3.5.2.2. Quantitative phase

The quantitative phase was conducted during a pilot phase and later a main study. During the pilot phase, data were collected from 26 participants and during the main study from 208 participants. All participants attended one of the two participating schools in Pretoria. Quantitative data were generated by means of the participants completing paper-based questionnaires, namely the Family Attachment Scale (FAS) (Appendix E) and the Trait Well-Being Inventory (TWBI) (Dalbert, 1992) (Appendix F). These questionnaires were completed in my presence and collected thereafter. The TWBI was used for validation purposes (see Chapter 1, Section 1.9.4.2). The research methodology and process are summarised in a visual form in Table 3.1. This table provides a layout of the key processes which included the paradigmatic assumption, the methods used for data collection, the types of data analysis used and the ethical considerations that were taken into account.

## Table 3. 1 An abstract of the research methodology and research processes

**PARADIGMATIC ASSUMPTION**

| Methodological paradigm | | Critical realistic paradigm |
|---|---|---|

**RESEARCH DESIGN**

| Selection of participants | Exploratory sequential mixed method design | Multi-stage random sampling |
|---|---|---|

**DATA COLLECTION**

| PHASE ONE | PHASE TWO | |
|---|---|---|
| **Qualitative data collection techniques** | **Quantitative data documentation techniques** | |
| Semi-structured interviews with open-ended questions | Verbatim written transcripts of answers given to questions in the interviews | |
| **Participants** | **Participants** | **Participants** |
| 17–18-year-old students | **Pilot (N = 26)** | **Main (N = 208)** |
| Two participants from government schools in Pretoria | 16–18-year-old students | 16–18-year-old students |
| | (n = 26) | (n = 208) |
| **Aim of the qualitative phase** | **Aim of pilot study** | **Aim of main study** |
| Literature review of attachment, defining of attachment constructs and development of items | Initial item pool | Examine research questions |
| Finalising items and further development | | |
| **Instruments** | **Instruments** | **Instruments** |
| Semi-structured interviews with open-ended questions | **Pilot (N = 26)** | **Main (N = 208)** |
| | • Family Attachment Scale (FAS) | • Family Attachment Scale (FAS) |
| | • Trait Well Being Inventory (TWBI) | • Trait Well Being Inventory (TWBI) |
| | • Dalbert | • Dalbert |

**DATA ANALYSIS**

| Qualitative data analysis | Quantitative data analysis | |
|---|---|---|
| Thematic analysis of data derived from interviews | Item reliability analysis | |
| | Principal Component Analysis (PCA) | |

**RELIABILITY / VALIDITY**

| Qualitative phase | Pilot study | Main study |
|---|---|---|
| Member checking | Cronbach's alpha coefficient | Cronbach's alpha coefficient |
| | Construct validity | Construct validity |
| | Convergent validity | Convergent validity |

**ETHICAL CONSIDERATIONS**

Informed consent, voluntary participation, confidentiality and privacy, anonymity, trust, protection from risk and the right to withdraw at any stage of the research.

### 3.5.3. Instruments

### 3.5.3.1. Demographic information

The participants completed the first section of the questionnaire which consisted of demographic questions (Appendix E). This assisted in the construction of a profile of each participant (Maree and Pietersen, 2007). The demographic questions included subgroups in relation to gender, age, population group (white, black, Asian, other) and the marital status of the parents (married parents, divorced parents, single mother or single father).

### 3.5.3.2. Family Attachment Scale (FAS)

The Family Attachment Scale (FAS) (Appendix E) was developed in accordance with the recommendations stated in the literature (DeVellis, 2012; Worthington et al., 2006). The six dimensions in Neufeld's attachment theory, namely: (i) proximity, (ii) sameness, (iii) belonging and loyalty, (iv) significance, (v) feeling loved and (vi) being known, were used as a reference to generate an initial set of items for the FAS (Neufeld et al., 2006). The FAS contained statements about families, for example: *I am friends with my family*, *My family recognises the true me* and *My family understands me* (Appendix E). Participants indicated on a five-point Likert scale whether the statements 'Never', 'Sometimes', 'Often' or ' Always' describe their own family.

Thereafter the data for the pilot study were gathered. The next step was to conduct a reliability analysis which included Cronbach's alpha coefficient to establish the internal consistency and reliability of the scale items. By assessing construct-related validity the initial consistency of the scale, as well as item reliability and item correlations were inspected (DeVellis, 2012). The pilot study assisted in developing a final scale, which was used in the main study.

### 3.5.3.3. Trait Well-Being Inventory (TWBI)

Well-being can be defined as the degree to which human potential is fully realised (Neufeld et al., 2006). Research on well-being distinguishes between the hedonic approach which focuses on happiness and pleasure, and the eudaimonic approach which focuses on meaning and self-realisation (Deci et al., 2008; Linley, Maltby, Wood, Osborn and Hurling, 2009; McDowell, 2010). The hedonic approach understands well-being in terms of individual perceptions of positive and negative affect, whereas the eudaimonic approach defines well-being as self-actualisation and living a meaningful life (Deci et al., 2008). The present study understands well-being from a hedonic perspective rather than a eudaimonic perspective as the focus is on the adolescents'

perception and experience of positive versus negative attachment relationships (Deci et al., 2008). Well-being is thus regarded as the experience of high positive affect, low negative affect and a high level of general life satisfaction (Deci et al., 2008). Family stability, satisfaction and positive emotional support are identified as aspects that have a positive effect on well-being (Andersson, 2005; Fiese, Foley and Spagnola, 2006). The quality of the connection between family members can affect the well-being of individual family members. Adolescents' relationships with their families shape their development of interpersonal skills and sense of well-being (Andersson, 2005). Diener and Seligman (2002) found that having close personal relationships with others contributes significantly to happiness. The assumption can be made that strong attachment relationships with family members will correlate with well-being and will show a high cohesion in family relationships.

The body of literature shows that the quality of interactions and relationships as well as the emotional climate and stability of a family determine successful family functioning (Bowlby, 1982; Lopez and Gover, 1993; Patterson and Hastings, 2007). The TWBI is a valid measurement tool in the South African context as it has been administered to a sample size of 204 young adults of all races and both sexes, between the ages of 18 and 25 enrolled at a South African University. From the 204 participants (Female = 166; Male = 38) 129 (63.2%) reported that their parents are married, 25 (12.3%) indicated that their parents are separated, 17 (8.3%) parents are divorced, 8 (3.9%) remarried, 18 (8.8%) are deceased and 7 (3.4%) values were missing (Georgiou, 2013). The Index was included as a measure for construct validity in Georgiou's study. The findings indicate that construct validity was supported by the pattern of correlations and the TWBI displayed a strong relationship with both Mood Level and General Life Satisfaction. Although participants in Georgiou (2013) study were slightly older than in the present study most of them (63.2%) reported that their parents are still married. Georgiou (2013) study measured for differences between male and female participants and only indicated the participants' home language and not to which population group they belong. From the 204 only 98 participants (55.1%) home language was Afrikaans, 46 participants (20%) English and 59 (3.06%) speak an African language. The demographic information of the present study shows that the majority of the participants were white. Roughly two-thirds of the sample consisted of female learners and most participants reported that their parents were married (f = 147). In addition, Ash and Huebner's (2001) study also explored the correlation of adolescents' family life experiences and perceived well-being and reported a correlation with the TWBI.

Research indicates that secure individuals are more willing to explore their environment and achieve independence (Laursen and Collins, 2004). The relational atmosphere in the family thus provides a sense of safety and validation when needed. When children are secure in their family relationships, a connectedness and interrelatedness develop that enable them to explore new relations outside the family realm, which impacts on their sense of well-being (Byng-Hall, 1999; Weinfield, Sroufe and Egeland, 2000).

The Trait Well-Being Inventory was included mainly to measure the construct validity of the newly developed FAS. By assessing convergent validity it was assumed that, theoretically, a correlation between attachment and subjective well-being would occur. The pattern of correlations for subjective well-being is in accordance with the correlations usually reported with regard to secure attachment relationships (Kim, Carver, Deci and Kasser, 2008; La Guardia et al., 2000; Wei, Liao, Ku and Shaffer, 2011; Qadeyklaey et al., 2014). Therefore, in the present research, it was expected to find that secure attachment relationships are related to an increase in subjective well-being.

The Trait Well-Being Inventory (TWBI) measures both the emotional and cognitive dimensions of well-being in terms of the Mood Level Scale (Underwood et al., 1980) and the General Life Satisfaction Scale (Dalbert et al., 1984) respectively. The Mood Level Scale (Underwood et al., 1980) assesses the positive 'transient states of experience' (Bohner, Hormuth and Schwarz, 1991) and the General Life Satisfaction Scale (Dalbert et al., 1984) assesses the cognitive evaluation of an individual's past, present and future life (Dzuka and Dalbert, 2007). It consists of 13 items in total which are divided into six items from the Mood Level Scale of Underwood and Froming (1980) and seven items from the General Life Satisfaction Scale (Dalbert et al., 1984). The General Life Satisfaction Scale describes satisfaction with one's present and past life and one's future perspectives. Sample items for the Mood Level Scale include 'I consider myself a happy person' and 'I am not as cheerful as most people.' Sample items for the General Life Satisfaction Scale are 'I believe that much of what I hope for will be fulfilled' and 'I am satisfied with my situation.' The Trait Well-Being Inventory uses a six-point Likert scale that contains responses ranging between 1 – strongly disagree and 6 – strongly agree.

In a study concerning the quality of meaning in life for German psychology students, the Mood Level Scale showed a high reliability and presented an internal consistency of .89 and the General Life Satisfaction Scale an alpha of .87 (Schnell, 2010). Dalbert (1992) reported stability over a three-month interval of 0.81 for mood level and 0.87 for satisfaction with life. The

reliability of the TWBI was examined by calculating Cronbach's alpha (α) coefficient, which varied between 0.91 and 0.93 for the scale for the present study. The TWBI has been administered to a sample of young adults of all races and both sexes, between the ages of 18 and 25 in a South African context. It was included as a measure for construct validity in that study. The findings indicated that construct validity supported the pattern of correlations as TWBI displayed a strong relationship with both Mood Level and General Life Satisfaction (Georgiou, 2013). The TWBI was used for validation purposes in the present study.

## 3.6. DATA ANALYSIS STRATEGIES

### 3.6.1. Qualitative phase

The preparation of the qualitative data involved the verbatim transcription of the semi-structured interviews, and subsequently reading the transcriptions over several times to familiarise myself with the data in order to search for meaning and patterns, as well as to ensure reliability (Braun and Clarke, 2006; Clarke and Braun, 2013). Thereafter deductive coding of the data involved analysing the recorded interviews by identifying aspects that relate to Neufeld's six dimensions of attachment, namely: (i) proximity, (ii) sameness, (iii) belonging and loyalty, (iv) significance (v) feeling loved and (vi) being known (Neufeld et al., 2006). Themes were identified by underlining and or highlighting sentences, words and phrases that identify a specific dimension. The underlined words and phrases assisted in developing items for the quantitative phase that could be answered with a Likert scale response (Clarke et al., 2013; Creswell, 2008, DeVellis, 2012). The process of verification used involved member checking, confirming and thus ensuring the reliability and validity of the study (Creswell, 2003, 2009; Creswell et al., 2011). As mentioned in Chapter 1, Section 1.9.5.1, to achieve qualitative credibility the participants checked their transcribed responses (from the interviews) to ensure reliability and consistency (Creswell and et al., 2011).

### 3.6.2. Quantitative phase

### 3.6.2.1. Descriptive statistics

Descriptive statistics calculated in the pilot phase and main study included the exploration of patterns and the frequencies of individual values which were examined for gender and parents' marital status. The data were described by using measures of central tendencies by calculating the mean and median (Creswell, 2008). In addition, measures of variability that included range,

standard deviation and variance were calculated (Teddlie et al., 2009; Kaplan et al., 2009). The normality and data distribution were described by skewness analysis G1 (Fisher-Pearson coefficient), Standard Error of Estimation and Pearson 2 coefficient of skewness ($Sk_2$) statistics; these assisted with the reduction of the initial item pool (Doane et al., 2011; Garson, 2012; Wuensch, 2014). The Statistics Department of the University of Pretoria assisted by producing outputs from what I had compiled by myself (see Appendix J).

### 3.6.2.2.      Factor analysis

For the purpose of the present study Principal Component Analysis (PCA) was conducted using promax rotation where the components are defined as weighted sums of the original items and therefore linear transformations of the original variable (DeVellis, 2012). The PCA model with promax rotation was selected instead of the commonly used varimax rotation as items and factors were theoretically expected to correlate and therefore cross-correlations were permitted (Fabrigar et al., 2012; Jolliffe, 2002; Pallant, 2011). The PCA is not considered to be a factor analysis and is sometimes mistaken as the same statistical method. The promax rotation is an oblique approach to rotation that increases the factor loadings to two or greater, as well as explaining 55% of the variance (Burton et al., 2011; Jolliffe, 2002; Fabrigar et al., 2012; Williams, Brown and Onsman, 2012). There was no expectation regarding the number of variables that would emerge and therefore to determine the number of factors that should be kept, several considerations were followed in accordance with recommendations in the literature (Burton et al., 2011; Fabrigar et al., 2012).

First, the suitability of data and sample size should be taken into account (Burton et al., 2011; Fabrigar et al., 2012). The literature indicated that a sample size of approximately 200 participants is sufficient when the communalities between items are greater than .60, with at least 3 to 5 measured items per construct (Fabrigar et al., 2012; Jolliffe, 2002; Pallant, 2011). A component matrix displayed the relationships between individual variables as factorability should be above 0.3. Prior to the extraction of the factors, the strength of the intercorrelations among variables was determined by using the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy. The value of the KMO measure of sampling adequacy for this set of data was 0.94, which can be considered very good in accordance with the recommendations in the literature (Cohen, Manion and Morrison, 2007; Williams et al., 2012).

The next step was to determine the number of factors that should be retained and consequently multiple extraction criteria were used before making the decision. As mentioned in Chapter 1, Section 1.9.2.2 and Chapter 4, Section 4.4.2.1, firstly the Kaiser criterion (eigenvalue >1 rule), suggested the retention of factors above the eigenvalue of 1. A second criterion was Cattell's criterion (scree plot) in conjunction with the eigenvalues, where the scree plot indicated which factors account for most of the variances and thus a larger eigenvalue (Fabrigar et al., 2012; Pallant, 2011). The Kaiser's eigenvalue criterion suggested 10 factors, whereas Cattell's scree plot test suggested two factors. The abovementioned criteria determined which solution converged with the different methods (Fabrigar et al., 2012; Pallant, 2011; Williams et al., 2012). Using PCA with promax rotation, I inspected the initial pattern matrix. It was decided to retain factors that showed item loadings higher than .5 and delete items that showed cross-correlations as recommended by the literature (Fabrigar et al., 2012; Pallant, 2011). The five-factor model seemed to fit the data and was subsequently regarded as the final model.

### 3.6.2.3.     Reliability and validity

I assessed reliability by using item analysis and internal consistency procedures as described in Chapter 1, Section 1.9.4.3. Cronbach's alpha coefficient was used to measure the reliability and internal consistency of the scale items of the developed Family Attachment Scale (FAS), as well as the established TWBI. Based on DeVellis's (2012) reference, an alpha coefficient below 0.60 is considered as unacceptable, between 0.70 and 0.80 as respectable and between 0.80 and 0.90 as very good. However, Nunnally (1978) suggested an alpha value of 0.70 as acceptable. The Cronbach's alpha for the Family Attachment Total Scale (n = 208) was 0.94, indicating very acceptable internal consistency (DeVellis, 2012). The Cronbach's alpha for the five emerging factors of the FAS was as follows: love (α = 0.93), similarity (α = 0.90), proximity (α = 0.86), significance (α =.88) and knowledge (α =.67). The TWBI (n = 208) achieved an alpha coefficient of 0.93. I examined the convergent validity of the FAS by inspecting correlations between the FAS and the TWBI, based on the assumed positive theoretical relationships expected. Theoretically, the FAS constructs were hypothesised to relate positively to well-being as measured by the TWBI.

### 3.7.     DISTRIBUTION OF SCALED SCORES

The normality of the FAS and the TWBI and subscales assessed the nature of the data and also determined which statistical tests were appropriate (see Chapter 4, Table 4.10 to Table 4.17).

These scores were inspected in terms of scale mean, median, skewness and kurtosis values. Histograms of both scales (Figure 4.2 to Figure 4.10) were generated to determine the shape of the distribution (Pallant, 2011) Scatter plots were also inspected for a linear relationship between variables (Figure 4.11 to Figure 4.25).

## 3.8.        CORRELATION ANALYSIS

Correlational analyses address the Secondary Research Question 2 of the present study, namely How do the indicators of family attachment as reported by adolescents relate to their well-being? (Chapter 1, Section 1.9.5.2), as well as examine the statistically significant relationship between family attachment and subjective well-being. Pearson's correlation coefficient (r) examines the statistical linear relationship between Family Attachment and Trait Well-Being. The correlation coefficient can take any value from -1.0 to 1.0 (Kaplan et al, 2009). The data showed a significant effect of $p < .05$ as hypothesised. Correlations ranging between 0.42 and 0.62, with approximately normal distribution and linearity, also indicated a moderate relationship between variables. A correlation of .80 and above is considered as a strong correlation, around .50 a moderate correlation and .30 and below a weak correlation (DeVellis, 2012).

## 3.9.        GENERAL LINEAR MODEL (GLM)

In the present study I used the General Linear Model (GLM) with the help of a statistical consultant, which is a multiple linear regression model that predicts one variable (dependent variable) from one or more independent variables (Nelder and Wedderburn, 1972). I followed a univariate GLM procedure to examine the extent to which the dependent variable Trait Well-Being Total Score (TWBTS) could determine subjective well-being (DeVellis, 2012; Kaplan et al., 2009). I described the relationship between the suggested predictor variables, Family Attachment Scale (Love, Similarity, Proximity, Significance, and Knowledge) and well-being (TWBI) the dependent variable, to see whether variances in any of the suggested predictor variables contribute significantly to variances in the dependent variable (TWBI). The independent variables of the Family Attachment Scale (Love, Similarity, Proximity, Significance, and Knowledge) were entered simultaneously into the model together with gender, parents' marital status and interaction term (gender, parents' marital status). The GLM procedure was repeated in six steps, and in each step the variable with the highest p-value (i.e. lowest

significance) was removed until the final model emerged with two possible significant predictors (see Chapter 4, Section 4.4.2.1).

## 3.10. ETHICAL CONSIDERATIONS

The Education Ethics Committee granted approval to conduct the present research project (Appendix D) and ethical principles were adhered to in terms of professional standards such as respect for the individual, professionalism and integrity. The Gauteng Department of Education (GDE) gave permission to conduct the present research in the schools that are under their jurisdiction (Appendix B), and both the participants (Appendix C) and their parents granted permission (Appendix A) for participation in the research process.

### 3.10.1. Voluntary participation and informed consent

After ethical clearance and parental consent had been granted, participants were identified through multi-stage random sampling according to grade, class and then participant. They were given ample time to decide whether they felt comfortable to take part in the study. Subsequently, they were informed about the nature and purpose of the research and also reminded that participation was completely voluntary and that they could withdraw from the study at any point in time (Denzin et al., 2005). The participants' age was taken into consideration and therefore care was taken with language when information about the study was communicated to them. They were therefore in no way coerced into participating in the research.

The questionnaires that included the demographic information, the Family Attachment Scale (FAS) and the Trait Well-Being Inventory (TWBI) were distributed and completed in my presence. After completion, the questionnaires were collected. In addition, the participants signed a consent form indicating that participation was voluntary and that the information gained from the research would be treated as highly confidential and only used for research purposes (Appendix C).

### 3.10.2. Privacy, confidentiality and anonymity

The importance of the privacy, confidentiality and anonymity of the participants was considered at all times. The participants were encouraged to share their personal views, feelings and opinions about themselves and their families, and therefore required a guarantee of confidentiality that the information revealed would not be disclosed to others but used only for

research purposes (Denzin et al., 2005). The privacy of the schools and the students was protected and there was no reference or link to individual participants or the schools in the research process or published outcomes. The principle of trust was adhered to as the participants had an opportunity to examine the transcripts in order to edit, change or withdraw any data at any given time in order to ensure accuracy and anonymity.

### 3.10.3.	Protection from harm and risk

Although no risks were foreseen, for the participants the sensitive nature of the research topic was taken into consideration because humans and especially children are vulnerable. The nature of the questions might impact on their well-being as it could remind them of their relationships with family members. The questions involved personal feelings and opinions about their family members that could lead to embarrassment or discomfort. Every effort was made to establish a relationship based on honesty, trust and respect with the participants (Creswell, 2003; Henning et al., 2004; Ritchie et al., 2004). The participants were advised about the possible risk when participating in the research and they were encouraged to ask questions if there was uncertainty or doubt about the risk issue. The results were reported in a reliable and accurate manner that protected the participants from risk or harm of any kind (Creswell, 2003, 2009; Henning et al., 2004; Ritchie et al., 2004).

### 3.11.	CONCLUSION

Chapter 3 described the development of the Family Attachment Scale (FAS) based on the use of Neufeld's attachment theory (Neufeld et al., 2006). This attachment model described attachment from a systemic perspective and distinguished between the qualitative and quantitative phases in the pilot phase and the main study. A critical realism paradigm was chosen for the present study as critical realism permits the researcher to explain the multi-layered complexity of attachment where the world is composed of events, experiences (interviews), impressions and discourses, with existing underlying structures and mechanisms that shape observable events (attachment relationships) (Bhaskar, 1986, 1998). An exploratory sequential mixed method design was selected for investigating the research problem and constructs, and it was endeavoured to measure and first obtain qualitative data and results from a sample of a population, and then to utilise the exploratory interviews to explore the participants' perspectives of family attachment and consequently obtain acceptable language to phrase the items. The quantitative phase involved a pilot phase and later a main study. The

data were collected sequentially, and then analysed and integrated (Creswell et al., 2003). The qualitative findings from the first phase were used to develop a new scale in the second phase (Creswell, 2003, 2009). The Trait Well-Being Inventory (TWBI) provided validity for the new Family Attachment Scale (FAS) by supporting the idea that attachment relationships could be measured by the newly developed FAS. Data analysis included descriptive statistics, factor analysis, correlational analysis and the General Linear Model procedure (Fabrigar et al., 2012; Jolliffe, 2002; Pallant, 2011).

## 4.1. INTRODUCTION

In Chapter 4 I discuss the results of the pilot phase and main study. First, I present briefly the outcome of the evaluation of the items for the Family Attachment Scale (FAS) by a panel of experts (see Chapter 1, Section 1.9.2.2 and Chapter 3, Section 3.4). Second, I will describe the results of the reliability analysis of the FAS as the second part of the pilot study. Third, I will present the results of the main study. The results of the pilot and main studies were analysed with the assistance of the Statistics Department of the University of Pretoria. They assisted in generating the results as stipulated in the analysis, recording layouts and doing the scale analysis (see Appendix J) which was compiled by myself.

## 4.2. QUALITATIVE PHASE RESULTS (PHASE ONE)

The qualitative data were analysed based on the participants' responses to open-ended questions about the adolescents' family life experiences and perceived well-being (see Figure 4.1). Neufeld's six dimensions of attachment, namely (i) proximity, (ii) sameness, (iii) belonging, (iv) significance, (v) feeling loved and (vi) being known, formed the basis of the theoretical coding. The purpose of the exploratory qualitative phase was to gather qualitative data to answer Secondary Research Question 1: Which qualities in their family relationships do adolescents value as indicators of family attachment? (see Chapter 3, Section 3.4 which deals with scale development). Neufeld's attachment dimensions are not known and the responses of the participants suggested that they understand the six dimensions of attachment as described by Neufeld. Appendix K served as an interview guide. An initial item pool (see Appendix I) was developed based on the adolescents' answers (see Figure 4.1). During the interviews participants used words such as '**share**,' '**together**,' '**with**' and '**strong**' when describing the Proximity dimension. When discussing the Sameness or Similarity dimension the participants used phrases such as '**like the same thing**,' '**open up**.' In answer to questions with regard to the Significant dimension the participants indicated that they '**feel that they play an important role in the family**,' '**everyone else will leave you but family stays**.' With regard to the dimension Belonging, participants indicated that they '**sit all together**,' '**support**,' '**trust**' and '**comfort**' each other. They indicated that they '**are close**,' '**loved**' and '**understood**' in their families which shows their understanding of the dimension Feeling loved. With regard to the

dimension Being known, the participants indicated a '**respect for each other's boundaries**,' and '**good relationship**' with family members. The rich answers of the participants indicated an understanding as the emerged themes correlated with the literature (Dworkin, 2012; Marshall, 1996; Neufeld et al., 2006).

| Dimension | Participants answers | Coding |
|---|---|---|
| **Dimension1:** <br><br> **Proximity** <br><br><br><br> Physical closeness <br><br> Emotional Closeness <br><br><br> Contact <br><br><br> Support and availability of parent to advice and comfort <br><br> Nearness <br><br> Present | • <u>Do</u> something with you (P1) <br> • Also an emotional closeness (P1) <br> • <u>Share</u> with my mom and dad (P1) <br> • To <u>tell</u> my mom and dad (P1) <br> • Everything or every activity we <u>do we do togethe</u>r (P1) <br> • All three of us will <u>go together</u> (P1) <br> • Me and my brother are going to the same friend (P1) <br> • Will tell <u>them</u> or I will <u>show</u> them  (P1) <br> • Deep emotional conversation  (P1) <br> • Phones us every morning before school and every evening (P1) <br> • On a Saturday we normally <u>go with him</u> to sites wherever he was working we will spend the day with him  (P1) <br> • My family is my comfort and my support system. So when I am in a tough time, the first people I t<u>urn to are my family</u>. (P1) <br> • You have a <u>strong connection</u> with someone you can touch you do not worry that they will pull away from you, they don't hide anything they feel comfortable with you  (P2) <br> • My sister will jump on me in the morning (laugh). It is not only a physical closeness  (P2) <br> • Parents are very <u>open with us,</u> they will not keep things from us (P2) <br> • If something needs to be said or done they do it  (P2) <br> • We go on holiday we do not go with friends. We are always together, but we do respect each other's space and boundaries. (P2) <br> • We are different but can <u>do things togethe</u>r like scuba diving or horse riding we do  (P2) <br> • It is the same when they come home from work they do the same<u> tell about how thei</u>r days gone. (P2) <br> • Adventurous we like the outdoors like if my dad comes in winter we normally <u>all go</u> hunting. My mom would normally just stay at the cabin because she does not like seeing animals getting shot, ja me and my three brothers and my dad would normally go out on a hunting trip  (P1) <br> • A group of friends my brothers and my mom and my aunt and her sons all going to Sun City and we are having and we are <u>spending the whole day there together. Ja that any activities we do we do together</u>  (P1) | • I usually participate in family activities. <br> • I misunderstand my family easily. <br> • We support each other in difficult times. <br> • We spend time together as a family. <br> • I enjoy holidays with my family. <br> • I don't feel particularly close to some of my family members. <br> • I feel connected to my family. <br> • I like to have contact with my family. <br> • I turn to my family when I feel distressed. <br> • I have a strong connection with my parents. <br> • My parents will share their emotions with us. <br> • My family is available to me. <br> • I experience closeness from my family. <br> • In my family we can share secrets with each other. <br> • I feel emotionally close to my parents/siblings. <br> • I feel part of my family. |

| Dimension 2: **Similarities/ Sameness** | | |
|---|---|---|
| Similarity<br><br>Identification<br><br>Likeness<br><br>Resemblance<br><br><br>Difference (antonym) | • Say that I am both. Like I have more features of my dad but the personality of my mother. Like my dad he is very tall and he is well built and he is very masculine and when he was growing up he had the exact same experiences that I had like he had a very short growth rate and his growth spurt was a bit behind, <u>the same thing I</u> have. My personality is more towards my mother like caring, open hearted like that (P1<u>)</u><br>• There is a lot of pictures of that, I enjoyed that (P1)<br>• <u>Share</u> everything good and bad things. (P2)<br>• Everyone else will come second in life so if I had to get married one day my family comes first and then him and everything else. (P2)<br>• Dropped a pencil in class and I had to pick it up. Like that type of thing. It is just small little things. But it is nice because later on when something big happens whatever then my dad would say but you said something earlier on the year. So if something like say I had a bad year a bad matric year it was just not good with friends and everything and I constantly <u>opened up to</u> my parents (P2)<br>• We also do a lot of things together. We go on holiday we do activities like scuba diving so we do a lot of things together as well just to strengthen the family bond. (P2)<br>• We are always wearing each other's clothes and just irritate each other but I think cause like especially when we driving for long trips when we go visiting my grandfather in Middleburg which is about two and a half hour drive for us. And we had a bit of a bicker in the car and like two seconds later we back to be the best of friends again. So I think it is that <u>give and take type of t</u>hing. I think if I had a big problem I can go to my sister as well like I struggled in primary school as well and the person that was there for me was my sister because my parents were not at my primary school my sister was there and she was the one that comfort me and. I think our family as a whole y<u>ou can go to anyone in our family and you know just know</u>. (P2)<br>• My dad is more relaxed he said he use to do the same thing when he was younger or when he was growing up so he experienced it so he would say if you experience it do not do it again. (P1) | • I participate in family activities.<br>• I do not enjoy family outings.<br>• I like to take part in family activities<br>• People sometime comment that I look like my dad or mom.<br>• I feel different in my family.<br>• In my family I feel like the odd one out.<br>• I feel like I have a lot in common with my siblings.<br>• In my family we like many of the same things.<br>• I share enjoyment of the same things with my family.<br>• We have things in common.<br>• I enjoy sharing with my family.<br>• I can be open with my parents.<br>• We share the same interests.<br>• I feel my family appreciates me.<br>• My family comes first in my life.<br>• I am different from my family.<br>• We do a lot of things together.<br>• I am similar to my family.<br>• My family resembles my interests.<br>• I can share with anybody in my family.<br>I feel like I fit into my family. |

| | | |
|---|---|---|
| **Dimension 3:**<br><br>**Significance**<br><br>Connection<br><br>Acceptance<br><br>Feel you matter<br><br>Meaning<br><br>Important<br><br>Meaningless ness (antonym) | • Would reward me like we have a system in our family that if you get above sixty we get money (P1)<br>• Sometimes I have to break them up because those two are normally the ones that are going at each other but not really emotionally. Thy normally sort out their <u>differences by</u> themselves. (P1)<br>• Sometimes I have to break them up because those two are normally the ones that are going at each other but not really emotionally. Thy normally sort out their <u>differences</u> by themselves. (P1)<br>• He asks what he can do so I gave him <u>advice</u>. I would tell him to say sorry or drink some water. (P1)<br>• It is exciting to see what messes my brothers get into and I have to fix it. Like a few days ago he we had tuck shop money and he lost it, he lost his R50 so I bought food for him and I gave him some of my money so he can get some lunch. (P1)<br>• <u>I would help</u> them with a situation they get into I would help them. Hmm with my mother as well if she gets into hmm when I was a bit younger I think I was twelfth we were in a car accident and my mom I helped her get through it because she was very angry with the person and I told her she must just calm down it is not that bad we can get (P1)<br>• My mom side and my dad's side. My dad's brothers and my mom's sister <u>we went as a big family group</u> (P1)<br>• <u>I feel that I play an important role in the family.</u> (P2)<br>• <u>When my mother is not there I sort of the glue holding</u> the family together. I feel like if something goes wrong let's say my sister and my mom fights then when they sort of cooled down I go to my sister and say don't you think you should apologise type of thing. Just sort of getting everyone back in the normal mode of things. I don't the family separate I want them close. Family is my number one in life. (P1)<br>• Everyone else <u>will leave you</u> but your family will always be with you. (P2)<br>• You <u>support them no matter what.</u> (P2)<br>• We will be one of the closer families because we tell each other (P2) | • **I cannot tell what other family members are feeling.**<br>• I am open with family members.<br>• I feel accepted for who I am.<br>• I feel important to my family.<br>• I feel valued in my family<br>• My opinion matters in my family<br>• **My family have many disagreements.**<br>• My family can settle conflict quickly.<br>• I can help my family members with problems<br>• I feel accepted in the family.<br>• I feel that I play an important role in the family.<br>• My family members listen to me.<br>• I will support my family even if they are wrong.<br>• I can influence my family members<br>• I feel like my family will always be there for me.<br>• **I do not want to help my family with their problems.** |

| Dimension 4:<br><br>Belonging<br><br><br>Lay claim<br><br>Fit in<br><br>Interpersonal relatedness /feel part<br><br>Support<br><br>Being valued | • I do a lot. Yes I would say it is more open with each other and more friendly with each other than I have to go with friends or people I do not really know. (P1)<br>• I won't really get offended or feel left out if I don't have a personality or a tribute like my dad. (P1)<br>• No not at all. Never. I actually never felt like that. (P1)<br>• I normally if mom like has to go somewhere, my dad works overseas, she is now mainly the head of the house while my dad is overseas. Then if she has to go like to a shopping centre or hang out with friends then normally I would take charge of my brothers. She would give me the things to do like if I have to cook food for my brothers I would cook food for my brothers (P1)<br>• They normally come to me to ask what he can do in a situation. In grade seven Conrad had a fight with one of his friends and he came (P1)<br>• Dad is not here I am kind of the head of the house. I am like a second father<br>• We all sitting together (P1)<br>• Grandparents live with us on the stand that we are now and, we are very close to them. We speak to them every day, great them (P1)<br>• You know and come to each other for support. (P2)<br>• So when it comes to trust and all of that we are very trustworthy of each other because we know we have been open and honest. (P2)<br>• Then she also knows that she can come to us and we can comfort her you know that type of thing. It is nice to be able to do that but we also do a lot of things together. We go on holiday we do active (P2)<br>• But I do not feel like my parents have boundaries they are quite strict with us but it is a good strict it is not like they are keeping us from living our life they keeping us from destroying our life that type of thing you know. (P2)<br>• My parents give me all the freedom I want but they also keep me away from the bad things in life. My parents have been through a lot so they know what to and what not to do type of thing. (P2)<br>• Recently it has been a lot better. Like I think because I am growing up and becoming my own person I sort of understand where is coming from (P2)<br>• When things go wrong, we sit down and we sort it out, and we do not leave. We normally use our dining room table to sort out problems and we sit at that table until everything is sorted out and everything is out in the open. So I think that if there is ever any negativity going on there we sort it out as soon as it happens (P2)<br>• They always include us on a decision that is going on. Like when my grandfather died they did not keep it from us they tell us immediately what happened, why it happen. We were too young to understand what was going on but they still tell us. They still worry about us they still want us to know what is going on. (P2)<br>• Even when you get married to somebody one day that person could leave you but you will also have your parents and siblings to look after you. (P2) | • It is important to meet my family responsibilities.<br>• **I do not have to listen to my parents.**<br>• In times of crisis we turn to each other for support.<br>• We can share our good and bad times.<br>• We express tenderness towards each other.<br>• **I do not feel left out.**<br>• I never feel that I do not belong in my family.<br>• My family members normally ask my opinion.<br>• I have an important role to play in my family.<br>• I spend time with my family on a daily basis.<br>• I trust my family with my secrets.<br>• I am valued by my family.<br>• I feel part of my family.<br>• I can trust my family.<br>• My family support me.<br>• My family comfort me when I am in distress.<br>• My family protects me from bad things.<br>• I understand why my family wants to protect me from bad things.<br>• We can work through problems as a family.<br>• I feel included in family decisions. |
| --- | --- | --- |

| | | |
|---|---|---|
| **Dimension 5:**<br><br>**Feeling loved**<br><br><br>Supportive<br><br>Respect and trust<br><br>Warmly held<br><br>Emotional intimacy<br><br>Precious<br><br>Prised<br><br>Treasured<br><br>Dear<br><br>Hated (antonym) | • When I was smaller I used to get very homesick. But now that I am older I do not really get that homesick. I have got used to it. (P1)<br>• Then I normally would give them or go to them and ask them why they or have a dmc with them or see what is their point of view. (P1)<br>• I would say my cool headedness, I would not get angry I have a very long fuse I would not just jump in and start fighting. If say now my brother are getting into a fight I would just calm them down if they will start coming after me I would not get angry calm down, just breath. (P1)<br>• Are building a very nice house and they are doing it because for us in the future so I through that I feel very loved and very secure that they are doing that for us and our future so that we do not have to go and look for places to stay houses and that we have something to we have a nice place when we are older. (P1)<br>• We all sitting together as a group in the evenings he would normally sit in the caravan or he is sitting in his room talking on his phone (P1)<br>• No… no not at all. Everything that happens to me or I experience I share with them. I am friends with Conrad; my younger brother is a bot younger than me. We just share a lot we share everything. (P1)<br>• Yes I would tell him. (P1)<br>• I would tell my mom eventually. After a few days. I wil tell Conrad first, he will not blabber about it or spread rumours or whatever. (P1)<br>• He we normally speak to him every morning so that normally encourages us (P1)<br>• I stayed with my aunt and she used to because she is a teacher, she taught me from grade zero to grade 1. She gave me classes. I even have a picture when I was in her class. (P1)<br>• Grandparents live with us on the stand that we are now and we are very close to them. We speak to them every day, great them (P1)<br>• She tells me exactly how to handle it how to respond how to emotionally control myself. (P2)<br>• Very loved. It is unconditional. Even when my parents get upset with me it's not that type they chuck me out of the house kind of disappointments or upsets or whatever. The next day we back to be fine and yes you get in trouble for it but they care about the reason why you get into trouble because they care about you out of love. So let's say I came home late from a the one night and my mom was upset with me because I did not let her know I was coming home but afterwards I realized the reason she was upset because she was worried and because she cared. (P2)<br>• My mom first like if I have to let's say decide to move overseas I will phone my mom and like what do I do? But if it is a technical issue if it has to do with my car or money or my future type of thing I phone my dad. But if it has to do with my emotional side in like I phone my mom. (P2)<br>• Sister has more to do with my personal life as a whole. I ask my parents to help with my decisions but my sister helps to keep me grounded. She keeps me (laugh) type of thing. She constantly guides me along the path. She is younger than me she is a lot more mature than me in certain aspects. She helps me realise that I am growing up before my time you know. (P2)<br>My parents are very understanding but they do understand that we are still children like I am not ready to move out the house and my parents know that so they will not force me (P2) | • **We do not show affection easily towards each other.**<br>• We show love towards each other.<br>• I feel loved by my family.<br>• My family treats me with fondness.<br>• I feel warmly held by my family.<br>• **My family do not care what I do.**<br>• I experience emotional intimacy with my family.<br>• My family shows unconditional love towards me.<br>• I care what my family thinks about me.<br>• It is important for me to be praised by my family.<br>• **I hate my family.**<br>• My family trust me with secrets.<br>• I consider my family as trustworthy.<br>• I believe my family respects me.<br>• **I dislike attention from my family.**<br>• My family holds me dear.<br>• I am devoted to my family. |

| Dimension 6: Being Known<br><br>Self-fulfilment<br><br>Emotional connection<br><br>Accepted<br><br>Recognised | <ul><li>They like give us all three like I do not know bring us a cool drink or bring us a chocolate or something (P1)</li><li>If I tell him to stop and calm down he would listen to me. Even though he is a bit stronger or whatever. (P1)</li><li>I helped her get through it because she was very angry with the person and I told her she must just calm down it is not that bad we can get over it. (P1)</li><li>When we do activities he is part of us but when we are just talking he will sit in the TV room or something like that. I do not know. He is just Conrad. (P1)</li><li>Yes I can like hmmm my mom would sometimes when we are talking she would say I already knew that of you or before I explain it to her she would say I already knew that or if I had to or if I am playing rugby I would not hurt the person I will tackle him and put him nicely on the ground, she say I already know that of you (P1)</li><li>They normally respect that and I will use it to help them. They would not ask me I will do it out of my own will. (P2)</li><li>He is a bit secluded we still share everything. (P2)</li><li>Definitely. I think that's why if I had to make a decision I always go to my mother before I make a decision. I am colouring my hair soon to go brown and I told my mom and she was like yes. I want a change. She died her hair once and she hated it, so she is like she is going to let me do it but she wants me to know that she hated it so she is showing me her opinion but she is not forcing her opinion on me. So it's like you know my parents are still there for us they are still giving us that advice but you have to make your own decision. (P2)</li><li>I've just got a new boyfriend and the biggest problem for me is does my sister like him? My sister must like hom first before my parents like him. I spend a lot of time with my sister so if he comes into my life she is going to spend a lot of time with him and I want her to be able to have a good relationship with him and obviously he will spend more time with my family and parents. (P2)</li><li>Each other's space and boundaries. (P2)</li><li>We are very understanding of each other. If she wants something and she I can see that see wants it badly I am not going to intrude on her (P2)</li></ul> | <ul><li>**We show interest in each other only if we get something out of it**</li><li>I can cry openly in front of my family.</li><li>We accept each other's weaknesses.</li><li>We respect each other's space.</li><li>I realise the importance of family in my life.</li><li>**I do not have to compete with my family.**</li><li>My family recognise the true me.</li><li>I am familiar with my family and their problems.</li><li>**I suspect my family does not understand me.**</li><li>I appreciate it when my family know when to leave me alone.</li><li>I am aware of my family's unconditional support.</li><li>**My family is judgmental.**</li><li>I am friends with my family.</li><li>I feel complete when my family is close.</li><li>My family know when I am down.</li><li>It is special to know my family accepts me.</li><li>**I suffer because my family does not know me.**</li></ul> |

**Figure 4. 1: Coding of Qualitative interviews**

## 4.3.    PILOT STUDY (PHASE TWO)

### 4.3.1.    Construct validity of the FAS

The pilot study was designed to address Secondary Research Question 1 of the study, namely Which qualities in their family relationships do adolescents value as indicators of family attachment? Seventy-two items were piloted and the next step was to conduct item analysis to gather evidence of construct-related validity by assessing the internal consistency of the scale.

Internal consistency of the items was established by using Cronbach's alpha, and construct-related validity was investigated by using convergent validity of the scale. Factor analysis was applied in the main study for data reduction and for refining the constructs (DeVellis, 2012).

As discussed in Chapter 1 (see Section 1.9.2.2), the items for the FAS were developed from Neufeld's theory of attachment and were presented to a panel of experts for evaluation prior to piloting (see Table 4.1 below). The panel was in complete agreement on 31 of the 92 items and partially agreed on 55 items. On six items no agreement could be reached and it was subsequently decided to remove these items from the study. Table 4.1 shows the items on which there was complete and partial agreement and the dimensions in which the experts placed them.

**Table 4. 1: Experts in complete and partial agreement on rating items in a dimension**

| Complete agreement | | Partial agreement | |
|---|---|---|---|
| **Dimension** | **Items** | **Dimension** | **Items** |
| Proximity | 6, 8, 56, 80, 81 | Proximity | 5, 82 |
| Similarity | 4, 14, 15, 17, 18, 19, 20, 21, 22, 23, 58 | Similarity | 7, 16, 27, 59 |
| Belonging | 11 | Belonging | 1, 2, 3, 9, 10, 24, 26, 29, 30, 45, 46, 47, 48, 49, 50, 57, 89, 90 |
| Significance | 35,36,73,74 | Significance | 12, 31, 32, 33, 42, 55, 79, 85, 88 |
| Feeling loved | 37, 41, 61, 63, 64, 66, 68, 70 | Feeling loved | 24, 28, 34, 43, 52, 54 ,62, 65, 67, 69, 83, 91, 92 |
| Being known | 13, 40 | Being known | 38, 44, 51, 53, 75, 77, 78, 86, 87 |

It is interesting to note from Table 4.1 that the experts most often chose the dimensions Similarity (f = 11) and Feeling loved (f = 8). With respect to the items on which partial agreement was reached, the dimensions chosen more often were Belonging (f = 18) and Feeling loved (f = 13). As a result of the evaluation by the panel of experts, 86 items were included in the second phase of the FAS development to test the reliability of the scale (see items in Appendix E).

### 4.3.2. Reliability analysis of the FAS

Twenty-six participants with an average age of 17 years (SD = 0.27) completed the FAS in a pilot study to enable reliability analysis (see Chapter 3, Section 3.6.2.3). Of the 26 participants, 19 were white South Africans, three were black South Africans, two were Indian and two participants indicated that they were not from a population group as stipulated in the questionnaire. Using Cronbach's alpha, the FAS achieved a high reliability of 0.95.

The items were inspected and three indices, namely G1, also known as Fisher-Pearson, Standard Error of Estimation and Pearson 2 Skewness ($Sk_2$), were used to assess possible candidate items for deletion (Doane et al., 2011). **G1 (Fisher-Pearson)** statistic compares the sample with a normal distribution and values far from zero suggest a non-normal (skewed) population. **G1 (Fisher-Pearson)** statistics are applied in Excel and a 90% range for sample skewness was used to identify the lower limit and the upper limit of the sample (n = 26). The skewness coefficient of **Pearson 2 ($Sk_2$)** compares the mean and the median. Pearson 2 ($Sk_2$) has more variability than G1 (Fisher-Pearson) as by definition Pearson 2 ($Sk_2$) depends not only on the estimated mean and median, but also on the sample median and falls within the 90% expected range (Doane et al., 2011). The **Standard Error of Estimation** is an indication of the reliability of the mean and is expected to be small (Doane et al., 2011). The critical values of G1 (Fisher-Pearson), Pearson 2 coefficient of skewness ($Sk_2$) and Standard Error of Estimation are shown in Tables 4.2, 4.3 and 4.4 respectively. By using these indices items that fell outside the upper and lower limits were marked either green (G1) or blue ($Sk_2$). **G1 (Fisher-Pearson)** indicated the lower limit as -0.67 and the upper limit as 0.67 (Doane et al., 2011). **Pearson 2 ($Sk_2$)** showed a 90% expected range for the skewness coefficient and indicated the lower limit as -0.64 and the upper limit as 0.64 of the sample (Doane et al., 2011). By using the criterion of the skewness statistics being three times larger or smaller than the Standard Error of Estimation, those items were marked in yellow (Garson, 2012; Wuensch, 2014).

**Table 4. 2: Critical values for skewness coefficient G1 (Fisher-Pearson)**

| n | Lower Limit | Upper Limit |
|---|---|---|
| 30 | -0.67 | 0.67 |
| 40 | -0.59 | 0.59 |

**Table 4. 3: Critical values for Pearson 2 skewness coefficient $Sk_2$**

| n | Lower Limit | Upper Limit |
|---|---|---|
| 20 | -0.72 | 0.62 |
| 30 | -0.64 | 0.64 |

**Table 4. 4: Skewness analysis G1 (Fisher-Pearson), Pearson 2 (Sk$_2$), Standard Error of Estimation**

| Item Number | N | Mean | Median | Standard Deviation | Minimum | Maximum | Skewness G1 | Standard Error of Estimation | Pearson 2 Skewness Coefficient |
|---|---|---|---|---|---|---|---|---|---|
| 2 | 26 | 2.81 | 3.00 | 0.90 | 1 | 4 | 0.05 | 0.18 | -0.63 |
| 4 | 26 | 2.69 | 2.50 | 0.88 | 1 | 4 | 0.30 | 0.17 | 0.65 |
| 6 | 26 | 3.12 | 3.00 | 0.95 | 1 | 4 | -0.55 | 0.19 | 0.38 |
| 7 | 26 | 2.73 | 3.00 | 0.96 | 1 | 4 | 0.01 | 0.19 | -0.84 |
| 8 | 26 | 2.81 | 3.00 | 0.85 | 1 | 4 | -0.03 | 0.17 | -0.67 |
| 10 | 26 | 2.62 | 2.00 | 1.10 | 1 | 4 | 0.07 | 0.22 | 1.69 |
| *11 | 26 | 3.38 | 4.00 | 0.85 | 1 | 4 | -1.29 | 0.17 | -2.19 |
| 12 | 26 | 2.85 | 3.00 | 0.92 | 1 | 4 | -0.33 | 0.18 | -0.49 |
| *13 | 26 | 3.19 | 4.00 | 1.02 | 1 | 4 | -0.91 | 0.20 | -2.38 |
| 14 | 26 | 2.04 | 2.00 | 0.92 | 1 | 4 | 0.94 | 0.18 | 0.13 |
| *15 | 26 | 1.77 | 1.50 | 0.91 | 1 | 4 | 0.84 | 0.18 | 0.89 |
| 16 | 26 | 2.62 | 2.50 | 0.98 | 1 | 4 | 0.06 | 0.19 | 0.37 |
| 20 | 26 | 2.54 | 2.50 | 0.71 | 1 | 4 | 0.22 | 0.14 | 0.17 |
| 22 | 26 | 2.38 | 2.00 | 0.80 | 1 | 4 | 0.16 | 0.16 | 1.43 |
| *23 | 26 | 3.38 | 4.00 | 0.85 | 1 | 4 | -1.29 | 0.17 | -2.19 |
| 24 | 26 | 2.81 | 3.00 | 0.85 | 1 | 4 | -0.03 | 0.17 | -0.67 |
| 25 | 26 | 2.81 | 3.00 | 0.85 | 1 | 4 | -0.03 | 0.17 | -0.67 |
| 26 | 26 | 3.04 | 3.00 | 0.92 | 1 | 4 | -0.42 | 0.18 | 0.13 |
| 27 | 26 | 2.54 | 2.00 | 0.86 | 1 | 4 | 0.28 | 0.17 | 1.88 |
| 28 | 26 | 3.15 | 3.00 | 0.83 | 1 | 4 | -0.76 | 0.16 | 0.54 |
| 29 | 26 | 2.96 | 3.00 | 0.92 | 1 | 4 | -0.60 | 0.18 | -0.13 |
| 30 | 26 | 3.00 | 3.00 | 0.89 | 1 | 4 | -0.36 | 0.18 | 0.00 |
| 31 | 26 | 2.77 | 3.00 | 0.95 | 1 | 4 | -0.10 | 0.19 | -0.73 |
| *32 | 26 | 3.42 | 4.00 | 0.76 | 1 | 4 | -1.51 | 0.15 | -2.29 |
| 33 | 26 | 2.92 | 3.00 | 0.93 | 1 | 4 | -0.16 | 0.18 | -0.26 |
| *34 | 26 | 3.08 | 3.50 | 1.09 | 1 | 4 | -0.76 | 0.21 | -1.16 |
| 35 | 26 | 2.46 | 2.00 | 1.03 | 1 | 4 | 0.35 | 0.20 | 1.34 |
| *36 | 26 | *3.46* | 4.00 | 0.81 | 1 | 4 | -1.57 | 0.16 | -2.00 |
| 37 | 26 | 3.23 | 3.50 | 0.95 | 1 | 4 | -1.11 | 0.19 | -0.85 |
| 38 | 26 | 2.96 | 3.00 | 0.87 | 1 | 4 | -0.71 | 0.17 | -0.14 |
| *40 | 26 | 3.42 | 4.00 | 0.86 | 1 | 4 | -1.40 | 0.17 | -2.02 |
| *41 | 26 | 3.42 | 4.00 | 0.86 | 1 | 4 | -1.40 | 0.17 | -2.02 |
| 42 | 26 | 2.54 | 2.50 | 0.81 | 1 | 4 | 0.11 | 0.16 | 0.15 |
| *43 | 26 | 3.15 | 3.50 | 1.01 | 1 | 4 | -0.84 | 0.19 | -1.04 |
| 44 | 26 | 3.15 | 3.50 | 0.97 | 1 | 4 | -0.62 | 0.19 | -1.08 |
| 46 | 26 | 2.96 | 3.00 | 0.87 | 1 | 4 | -0.32 | 0.17 | -0.14 |
| *47 | 26 | 3.23 | 3.50 | 0.95 | 1 | 4 | -1.11 | 0.19 | -0.85 |
| 48 | 26 | 2.88 | 3.00 | 0.91 | 1 | 4 | -0.10 | 0.18 | -0.39 |
| 54 | 26 | 2.31 | 2.00 | 0.84 | 1 | 4 | 0.67 | 0.17 | 1.10 |
| *55 | 26 | 3.50 | 4.00 | 0.81 | 1 | 4 | -1.70 | 0.16 | -1.85 |
| 59 | 26 | 2.23 | 2.00 | 1.03 | 1 | 4 | 0.68 | 0.20 | 0.67 |
| *61 | 26 | 2.38 | 2.00 | 0.85 | 1 | 4 | 0.81 | 0.17 | 1.34 |
| 62 | 26 | 2.81 | 3.00 | 1.02 | 1 | 4 | -0.07 | 0.20 | -0.56 |
| 63 | 26 | 2.42 | 2.00 | 0.81 | 1 | 4 | 0.52 | 0.16 | 1.56 |
| 64 | 26 | 2.85 | 3.00 | 0.92 | 1 | 4 | -0.33 | 0.18 | -0.49 |
| 66 | 26 | 2.69 | 3.00 | 0.93 | 1 | 4 | 0.03 | 0.18 | -1.00 |
| 67 | 26 | 3.00 | 3.00 | 0.89 | 1 | 4 | -0.36 | 0.18 | 0.00 |
| 68 | 26 | 2.81 | 3.00 | 0.98 | 1 | 4 | -0.14 | 0.19 | -0.58 |
| *69 | 26 | 3.38 | 4.00 | 0.94 | 1 | 4 | -1.51 | 0.18 | -1.98 |
| 70 | 26 | 2.58 | 3.00 | 0.99 | 1 | 4 | -0.10 | 0.19 | -1.27 |
| 72 | 26 | 2.73 | 3.00 | 1.04 | 1 | 4 | -0.33 | 0.20 | -0.78 |

* indicate items where three indices of skewness are significant

Fourteen items were identified where all three indices of skewness were significant. These 14 items (see Table 4.4) were subsequently deleted, which resulted in 58 items in the FAS that were used to collect data in the main study.

## 4.4. THE MAIN STUDY

### 4.4.1. Participants

The sample consisted of 208 participants (female = 121; male = 87) with an average age of 17 years (SD = 0.27). Table 4.5 presents a breakdown of the sample characteristics.

**Table 4. 5: Demographic information of the main sample (N = 208)**

|  | f | % |
| --- | --- | --- |
| *Gender* | | |
| Male | 87 | 41.8 |
| Female | 121 | 58.2 |
| *Age in years* | | |
| 16 years | 92 | 44 |
| 17 years | 84 | 40 |
| 18 years | 32 | 11 |
| *In which grade are you this year?* | | |
| Grade 11 | 103 | 50 |
| Grade 12 | 105 | 50 |
| *To which population group do you belong?* | | |
| White | 117 | 56.3 |
| Black | 67 | 32.2 |
| Asian | 7 | 3.4 |
| Indian | 12 | 5.8 |
| Other | 5 | 2.4 |
| *What is the marital status of your parents?* | | |
| Parents married | 147 | 70.7 |
| Parents divorced | 29 | 13.9 |
| Single mother | 29 | 13.9 |
| Single father | 3 | 1.4 |

From the demographic information it is evident that the majority of the participants were white. Roughly two-thirds of the sample consisted of female learners and most participants reported that their parents are married (f = 147).

## 4.4.2. Instruments

### 4.4.2.1. Family Attachment Scale (FAS)

To investigate the theoretical structure of the FAS, I conducted a Principal Component Analysis, (PCA) (see Chapter 1, Section 1.9.2.2) with a promax rotation to assess the dimensionality of the FAS (Fabrigar et al., 2012; Pallant 2011). As recommended by Costello and Osborne (2005) and Fabrigar et al., (2012), an item is deleted if it loads less than 0.5 on a particular factor, as well as if it loads on a primary factor, but also shows a high loading on a secondary factor (cross-loading). In addition, an item is deleted when limited items correlate with a specific factor (Costello et al., 2005; Fabrigar et al., 2012). The first solution suggested ten factors which were more than anticipated. Factor 7 consisted of only two items (40 and 15) whereas factor 8, 9 and 10 consisted of only one item (41, 35 and 19) respectively. These items were subsequently deleted based on the number of observations per factors 7, 8, 9 and 10 (see Table 4.6).

**Table 4. 6: Initial factor solution for the Family Attachment Scale (FAS)**

| | Component | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| V45 | **0.761** | 0.175 | 0.127 | 0.107 | 0.112 | 0.158 | 0.120 | 0.099 | 0.039 | 0.068 |
| V44 | **0.739** | 0.225 | 0.199 | 0.238 | 0.167 | 0.030 | 0.090 | 0.125 | 0.053 | 0.062 |
| V47 | **0.688** | 0.270 | 0.254 | 0.155 | 0.072 | 0.206 | 0.190 | 0.116 | 0.019 | 0.023 |
| V52 | **0.667** | 0.219 | 0.270 | 0.183 | 0.068 | 0.176 | 0.149 | 0.213 | 0.111 | 0.042 |
| V48 | **0.662** | 0.309 | 0.186 | 0.227 | 0.097 | 0.306 | 0.121 | 0.022 | 0.045 | 0.075 |
| V46 | **0.641** | 0.245 | 0.331 | 0.130 | 0.138 | 0.117 | 0.203 | 0.082 | 0.147 | 0.076 |
| V51 | **0.634** | 0.173 | 0.321 | 0.190 | 0.201 | 0.187 | 0.082 | 0.177 | -0.130 | -0.019 |
| V38 | **0.619** | 0.089 | 0.066 | 0.094 | 0.187 | 0.099 | 0.182 | 0.177 | 0.091 | 0.069 |
| V30 | **0.609** | 0.275 | 0.465 | 0.274 | 0.125 | -0.027 | 0.035 | 0.033 | 0.073 | 0.027 |
| V50 | **0.606** | 0.117 | 0.041 | 0.192 | 0.310 | 0.196 | 0.021 | 0.279 | -0.164 | 0.116 |
| V14 | **0.565** | 0.106 | 0.199 | 0.298 | 0.222 | 0.174 | 0.140 | -0.032 | 0.177 | 0.093 |
| V36 | **0.551** | 0.316 | 0.327 | 0.254 | 0.285 | 0.125 | 0.026 | -0.059 | 0.074 | 0.133 |
| V54 | **0.532** | 0.070 | 0.182 | 0.102 | -0.006 | 0.395 | -0.089 | 0.474 | -0.031 | -0.106 |
| V63 | **0.524** | 0.417 | 0.170 | 0.213 | 0.328 | 0.155 | 0.059 | 0.058 | 0.193 | -0.021 |
| V28 | **0.522** | 0.263 | 0.461 | 0.315 | 0.088 | -0.090 | -0.006 | 0.174 | 0.079 | 0.150 |
| V37 | **0.499** | 0.264 | 0.353 | 0.355 | 0.353 | 0.189 | 0.047 | -0.157 | 0.065 | 0.074 |
| V49 | **0.433** | 0.308 | 0.191 | 0.319 | 0.167 | 0.403 | 0.119 | -0.086 | 0.173 | -0.030 |
| V64 | **0.386** | 0.222 | 0.237 | 0.201 | 0.298 | -0.006 | 0.143 | 0.014 | 0.323 | -0.218 |
| V20 | 0.237 | **0.778** | 0.110 | 0.090 | 0.057 | 0.183 | 0.048 | 0.015 | 0.112 | 0.094 |
| V21 | 0.181 | **0.765** | 0.138 | 0.163 | 0.222 | 0.149 | 0.050 | 0.100 | -0.006 | -0.009 |
| V23 | 0.131 | **0.764** | 0.237 | 0.170 | 0.156 | 0.063 | 0.109 | 0.095 | 0.042 | 0.047 |
| V22 | 0.266 | **0.727** | 0.150 | 0.164 | -0.003 | 0.156 | 0.035 | -0.035 | 0.020 | 0.178 |
| V25 | 0.265 | **0.614** | 0.228 | 0.257 | 0.206 | 0.026 | 0.073 | 0.080 | -0.028 | 0.069 |
| V24 | 0.248 | **0.599** | 0.242 | 0.267 | 0.272 | 0.125 | 0.133 | 0.080 | 0.049 | 0.034 |
| V59 | 0.404 | **0.449** | 0.272 | 0.168 | 0.386 | 0.326 | 0.058 | -0.045 | -0.068 | -0.005 |
| V33 | 0.122 | 0.116 | **0.696** | -0.061 | 0.039 | 0.293 | 0.218 | 0.123 | 0.066 | 0.087 |
| V31 | 0.322 | 0.189 | **0.696** | 0.277 | 0.113 | 0.076 | 0.001 | 0.036 | 0.017 | 0.012 |
| V32 | 0.352 | 0.188 | **0.667** | 0.072 | 0.194 | 0.063 | 0.106 | -0.011 | 0.184 | 0.052 |
| V34 | 0.349 | 0.234 | **0.630** | 0.174 | 0.077 | 0.226 | 0.172 | 0.102 | 0.078 | -0.045 |
| V43 | 0.319 | 0.293 | **0.563** | 0.292 | 0.150 | 0.191 | 0.137 | -0.006 | 0.129 | -0.017 |
| V29 | 0.332 | 0.179 | **0.486** | 0.263 | 0.254 | -0.083 | -0.146 | 0.101 | 0.030 | 0.062 |
| V42 | 0.314 | 0.280 | **0.431** | 0.110 | 0.298 | 0.075 | 0.014 | 0.215 | -0.036 | 0.205 |
| V8 | 0.264 | 0.077 | 0.142 | **0.670** | 0.074 | 0.225 | 0.380 | 0.021 | -0.033 | 0.274 |
| V11 | 0.391 | 0.256 | 0.073 | **0.623** | 0.247 | 0.039 | 0.024 | 0.119 | 0.195 | 0.009 |
| V7 | 0.296 | 0.001 | 0.185 | **0.619** | 0.103 | 0.228 | 0.186 | -0.045 | -0.111 | 0.293 |
| V12 | 0.075 | 0.216 | 0.095 | **0.617** | -0.135 | 0.094 | 0.295 | 0.035 | -0.044 | -0.207 |
| V9 | 0.297 | 0.222 | 0.146 | **0.562** | 0.219 | 0.038 | 0.009 | 0.059 | 0.247 | -0.029 |
| V10 | 0.296 | 0.312 | 0.163 | **0.513** | 0.224 | 0.144 | 0.096 | 0.097 | -0.013 | 0.059 |
| V16 | 0.218 | 0.261 | 0.156 | **0.499** | 0.160 | 0.074 | 0.102 | 0.316 | 0.105 | -0.017 |
| V27 | 0.404 | 0.326 | 0.270 | **0.446** | 0.130 | 0.074 | 0.042 | 0.096 | 0.094 | 0.099 |
| V13 | 0.049 | 0.146 | 0.406 | **0.441** | 0.134 | 0.337 | 0.166 | -0.111 | 0.075 | -0.017 |
| V17 | 0.357 | 0.290 | 0.205 | **0.361** | 0.256 | 0.204 | 0.184 | 0071 | -0.018 | 0.247 |
| V39 | 0.214 | 0.171 | .0257. | 0.035 | **0.566** | 0.050 | 0.179 | .0248 | -0.026 | 0.262 |
| V61 | 0.415 | 0.297 | 0.256 | 0.207 | **0.504** | 0.272 | -0.065 | -.0055 | 0.041 | 0.026 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| V57 | 0.453 | 0.190 | 0.233 | 0.128 | **0.498** | 0.410 | -0.028 | -.0004 | -0.019 | -0.137 |
| V56 | 0.273 | 0.289 | 0.269 | 0.153 | **0.482** | 0.471 | 0.025 | .0087 | -0.054 | -0.007 |
| V26 | 0.226 | 0.353 | 0.186 | 0.207 | **0.480** | 0.017 | 0.163 | .0240 | 0.163 | -0.065 |
| V60 | 0.285 | 0.239 | 0.096 | 0.181 | **0.457** | 0.310 | 0.089 | -.0023 | 0.247 | 0.096 |
| V18 | -0.327 | -0.254 | -0.007 | 0.240 | **-0.373** | -0.063 | 0.110 | -.0095 | 0.187 | -0.016 |
| V62 | 0.151 | 0.175 | 0.044 | 0.071 | 0.027 | **0.647** | -0.028 | -.0022 | 0.130 | 0.248 |
| V53 | 0.417 | 0.135 | 0.090 | 0.233 | 0.058 | **0.531** | -0.053 | .0071 | -0.009 | -0.101 |
| V58 | 0.060 | 0.075 | 0.243 | 0.087 | 0.280 | **0.523** | 0.133 | .0223 | 0.227 | -0.085 |
| V55 | 0.200 | 0.195 | 0.440 | 0.185 | 0.153 | **0.473** | -0.219 | .0049 | -0.179 | -0.220 |
| V40 | 0.199 | 0.115 | 0.142 | 0.203 | 0.039 | -0.003 | **0.842** | .0122 | 0.022 | -0.030 |
| V15 | 0.244 | 0.115 | 0.086 | 0.280 | 0.088 | -0.039 | **0.811** | -.0011 | 0.014 | 0.015 |
| V41 | 0.257 | 0.098 | 0.076 | 0.078 | 0.129 | 0.025 | 0.101 | **.0737** | 0.121 | 0.107 |
| V35 | 0.100 | 0.058 | 0.136 | 0.073 | -0.003 | 0.143 | -0.005 | .0105 | **0.821** | 0.076 |
| V19 | 0.157 | 0.426 | 0.094 | 0.112 | 0.091 | 0.076 | -0.043 | .0117 | 0.106 | **0.680** |

Extraction method: Principal Component analysis     Rotation method: Promax with Kaiser normalisation.
a. Rotation converged in 10 iterations.

Using the same procedure the second pattern matrix (see Table 4.7) suggested seven factors. On closer investigation, item loadings on various factors were found not to be theoretically sound (Fabrigar et al., 2012); this complicated the factor number extraction solution further. Factor 7 consisted of only two items (39 and 26) and these two items were subsequently deleted based on the number of observations per factor 7 (see Table 4.7). Items 10, 28, 30, 37, 59 and 63 were deleted as they showed loadings below 0.5 (Fabrigar et al., 2014; Jolliffe, 2002; Pallant, 2011). Items 29 and 42 loaded on factors three and five (cross-loading) and were subsequently deleted. In addition, item 53 loaded on factors one and six and item 55 loaded on factors three and six and were therefore subsequently deleted.

**Table 4. 7: Pattern matrix for the seven-factor model of the Family Attachment Scale (FAS)**

| | Component | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| V45 | **0.902** | 0.004 | -0.057 | -0.059 | -0.004 | 0.032 | -0.003 |
| V47 | **0.806** | 0.129 | 0.109 | 0.031 | -0.239 | 0.067 | 0.056 |
| V38 | **0.783** | -0.124 | 0.012 | -0.036 | -0.088 | -0.027 | 0.252 |
| V52 | **0.755** | -0.001 | 0.155 | 0.018 | -0.104 | 0.032 | 0.057 |
| V44 | **0.732** | 0.013 | 0.016 | 0.016 | 0.205 | -0.188 | -0.009 |
| V54 | **0.716** | -0.176 | 0.013 | -0.147 | 0.065 | 0.314 | -0.024 |
| V48 | **0.661** | 0.182 | -0.013 | 0.1 | -0.039 | 0.183 | -0.081 |
| V50 | **0.632** | -0.131 | -0.301 | -0.047 | 0.454 | 0.094 | 0.086 |
| V46 | **0.622** | 0.103 | 0.282 | 0.038 | -0.178 | -0.02 | 0.047 |
| V51 | **0.563** | -0.11 | 0.169 | -0.036 | 0.269 | 0.07 | -0.043 |
| V14 | **0.495** | -0.112 | 0.065 | 0.245 | 0.165 | 0.056 | -0.017 |
| V63 | **0.319** | 0.261 | -0.03 | -0.016 | 0.281 | 0.039 | 0.122 |
| V20 | 0.091 | **0.967** | -0.07 | -0.097 | -0.166 | 0.09 | 0.016 |
| V22 | 0.071 | **0.917** | -0.028 | 0.01 | -0.076 | 0.05 | -0.183 |
| V23 | -0.204 | **0.875** | 0.113 | -0.037 | 0.082 | -0.034 | 0.003 |
| V21 | -0.088 | **0.859** | -0.074 | -0.058 | 0.049 | 0.072 | 0.133 |
| V25 | -0.04 | **0.603** | 0.062 | 0.057 | 0.19 | -0.087 | 0.022 |
| V24 | -0.057 | **0.537** | 0.055 | 0.096 | 0.142 | 0.009 | 0.167 |
| V33 | 0.028 | -0.002 | **0.922** | -0.121 | -0.406 | 0.225 | 0.102 |
| V32 | 0.131 | 0.014 | **0.828** | -0.109 | -0.131 | -0.042 | 0.14 |
| V31 | -0.036 | -0.071 | **0.813** | 0.066 | 0.163 | -0.04 | -0.106 |
| V34 | 0.15 | 0.019 | **0.73** | 0.053 | -0.133 | 0.107 | -0.01 |
| V43 | -0.027 | 0.091 | **0.616** | 0.178 | 0.054 | 0.074 | -0.057 |
| V29 | -0.024 | -0.072 | **0. 587** | -0.049 | **0.467** | -0.182 | 0.001 |
| V30 | 0.034 | 0.067 | **0.391** | 0.026 | 0.197 | -0.177 | -0.128 |
| V28 | 0.054 | 0.05 | **0.341** | 0.067 | 0.18 | -0.257 | -0.063 |
| V42 | 0.089 | 0.125 | **0.347** | -0.196 | 0.326 | -0.028 | 0.12 |
| V8 | 0.112 | -0.148 | -0.066 | **0.98** | -0.14 | 0.074 | 0.003 |
| V12 | -0.156 | 0.07 | 0.011 | **0.896** | -0.114 | -0.02 | -0.227 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| V7 | 0.102 | -0.082 | -0.038 | **0.821** | -0.039 | 0.091 | -0.045 |
| V13 | -0.27 | -0.061 | 0.4 | **0.584** | -0.2 | 0.267 | 0.133 |
| V11 | 0.105 | 0.002 | -0.178 | **0.579** | 0.333 | -0.103 | 0.089 |
| V9 | 0.003 | -0.022 | -0.012 | **0.54** | 0.213 | -0.09 | 0.132 |
| V16 | 0.076 | 0.034 | -0.044 | **0.496** | 0.034 | -0.068 | 0.272 |
| V10 | -0.066 | 0.095 | -0.042 | **0. 348** | 0.212 | 0.029 | -0.085 |
| V17 | 0.141 | 0.118 | 0.006 | **0.495** | 0.158 | 0.088 | 0.059 |
| V27 | 0.113 | 0.089 | 0.07 | **0.518** | 0.279 | -0.072 | 0.16 |
| V18 | -0.048 | -0.048 | 0.298 | 0.03 | **0.76** | -0.005 | -0.037 |
| V57 | 0.091 | -0.129 | 0.043 | -0.166 | **0.74** | 0.381 | 0.018 |
| V61 | -0.005 | 0.054 | 0.054 | -0.07 | **0.679** | 0.204 | 0.06 |
| V60 | -0.073 | 0.06 | -0.075 | 0.061 | **0.554** | 0.255 | 0.068 |
| V64 | 0.035 | -0.069 | 0.26 | 0.051 | **0.496** | -0.102 | -0.013 |
| V36 | 0.262 | 0.108 | 0.189 | 0.049 | **0.499** | -0.003 | -0.068 |
| V59 | 0.073 | 0.312 | 0.076 | -0.066 | **0.35** | 0.265 | 0.048 |
| V37 | 0.096 | 0.041 | 0.224 | 0.226 | **0.327** | 0.082 | 0.012 |
| V62 | 0.126 | 0.226 | -0.111 | 0.068 | -0.11 | **0.641** | -0.115 |
| V58 | -0.066 | -0.173 | 0.202 | 0.059 | 0 | **0.499** | 0.34 |
| V53 | **0.43** | -0.028 | -0.114 | 0.119 | 0.217 | **0.42** | -0.223 |
| V55 | -0.164 | -0.038 | **0.396** | -0.093 | 0.424 | **0.47** | -0.205 |
| V56 | -0.039 | 0.07 | 0.047 | -0.092 | 0.436 | **0.54** | 0.222 |
| V49 | 0.236 | 0.179 | 0.038 | 0.304 | -0.004 | **0.511** | -0.048 |
| V39 | 0.161 | -0.038 | 0.046 | -0.167 | 0.133 | -0.049 | **0.75** |
| V26 | 0.072 | 0.175 | 0.006 | 0.057 | 0.04 | -0.09 | **0.649** |

Extraction method: Principal Component Analysis          Rotation method: Promax with Kaiser Normalisation
a.     Rotation converged in 7 iterations.

Using the same procedure the third solution suggested six factors (see Table 4.8). On closer investigation, factor 6 consisted of only two items (58 and 62) and the two items were subsequently deleted based on the number of observations per factor 6 (see Table 4.8). Item 14 showed loads on factors one and three and item 56 showed loads on factors five and six (cross-loading) (Costello et al., 2005; Fabrigar et al., 2012) and were subsequently deleted. In addition, items 13, 36 and 49 showed loads of less than 0.5 and were subsequently deleted.

**Table 4. 8: Pattern matrix for the six-factor solutions of the FAS**

| | Component | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| V45 | **0.8948** | -0.0021 | -0.0759 | -0.0132 | 0.0166 | -0.0380 |
| V47 | **0.8036** | 0.1211 | 0.0652 | 0.1518 | -0.2465 | 0.0495 |
| V38 | **0.7969** | -0.0807 | 0.0206 | 0.0480 | -0.0465 | -0.0591 |
| V54 | **0.7720** | -0.1334 | -0.1500 | 0.0030 | 0.0019 | 0.2708 |
| V44 | **0.7638** | 0.0448 | 0.0479 | -0.0205 | 0.1287 | -0.2101 |
| V50 | **0.7376** | -0.0586 | -0.0039 | -0.3341 | 0.3258 | 0.0934 |
| V52 | **0.7371** | 0.0110 | 0.0152 | 0.1773 | -0.0605 | 0.0045 |
| V48 | **0.6594** | 0.1567 | 0.0919 | 0.0101 | -0.0726 | 0.1855 |
| V51 | **0.6286** | -0.0862 | -0.0460 | 0.1625 | 0.2130 | -0.0212 |
| V46 | **0.5749** | 0.0861 | 0.0056 | 0.3601 | -0.0691 | -0.1121 |
| V14 | **0.4986** | -0.1134 | **0.3755** | 0.0620 | 0.2499 | -0.0134 |
| V20 | 0.0628 | **0.9326** | -0.0825 | -0.0311 | -0.1110 | 0.0793 |
| V23 | -0.1833 | **0.8644** | -0.0295 | 0.1036 | 0.0996 | -0.0459 |
| V21 | -0.0680 | **0.8469** | -0.0551 | -0.0240 | 0.0988 | 0.0808 |
| V25 | 0.0432 | **0.6313** | 0.0626 | 0.0330 | 0.1095 | -0.0718 |
| V24 | -0.0376 | **0.5513** | 0.0974 | 0.0793 | 0.2141 | 0.0019 |
| V8 | 0.1194 | -0.1285 | **0.9898** | -0.0738 | -0.1835 | 0.1233 |
| V12 | -0.1484 | 0.0474 | **0.8880** | -0.0108 | -0.1819 | -0.0928 |
| V7 | 0.1274 | -0.0706 | **0.8531** | -0.0731 | -0.1168 | 0.1359 |
| V11 | 0.1247 | 0.0528 | **0.5864** | -0.1916 | 0.3269 | -0.1277 |
| V17 | -0.2997 | -0.0517 | **0.5675** | 0.4358 | -0.0471 | 0.2161 |
| V9 | -0.0321 | -0.0022 | **0.5367** | -0.0261 | 0.3530 | -0.1304 |
| V16 | 0.1006 | 0.1197 | **0.4954** | -0.0223 | 0.0810 | -0.0785 |
| V13 | 0.1365 | 0.1248 | **0.3311** | 0.0121 | 0.2168 | 0.0768 |
| V49 | 0.1668 | 0.1256 | **0.2582** | 0.0868 | 0.1399 | 0.2497 |

| | | | | | | |
|---|---|---|---|---|---|---|
| V33 | 0.0316 | 0.0070 | -0.1492 | **0.9736** | -0.2930 | 0.1489 |
| V32 | 0.1006 | 0.0264 | -0.1082 | **0.8327** | 0.0106 | -0.0920 |
| V34 | 0.1636 | 0.0230 | 0.0176 | **0.7374** | -0.0708 | 0.0302 |
| V31 | 0.0241 | -0.0196 | 0.0514 | **0.7174** | 0.1146 | -0.0986 |
| V43 | -0.0153 | 0.0871 | 0.1526 | **0.5962** | 0.1040 | 0.0041 |
| V61 | 0.0188 | 0.0566 | -0.1187 | 0.0674 | **0.7902** | 0.0989 |
| V57 | 0.1622 | -0.1119 | -0.2042 | 0.0465 | **0.7834** | 0.2421 |
| V18 | -0.1114 | -0.1053 | 0.0684 | 0.3464 | **-0.7670** | 0.0438 |
| V60 | -0.1141 | 0.0399 | -0.0182 | -0.0489 | **0.7618** | 0.1860 |
| V64 | 0.0354 | -0.0683 | -0.0468 | 0.2850 | **0.6148** | -0.2584 |
| V56 | 0.0463 | 0.1317 | -0.0662 | 0.0597 | **0.4469** | **0.4038** |
| V37 | 0.0890 | 0.0341 | 0.2065 | 0.2186 | **0.4954** | 0.0288 |
| V36 | 0.3106 | 0.1174 | 0.0374 | 0.1548 | **0.3346** | -0.0824 |
| V62 | 0.0823 | 0.1595 | 0.0452 | -0.0896 | -0.0745 | **0.7291** |
| V58 | -0.1316 | -0.1726 | -0.0013 | 0.2902 | 0.3171 | **0.4937** |

Extraction method: Principal Component Analysis        Rotation method: Promax with Kaiser Normalisation.
a. Rotation converged in 5 iterations.

In the fourth step a five-factor solution was attempted which turned out to fit the data more suitably. An inspection of the pattern matrix (see Table 4.9) shows a clear five-factor model for the FAS consisting of five factors, namely **Love**, **Similarity**, **Proximity**, **Significance** and **Knowledge**. The five-factor solution (see Table 4.9) maintained the expected factor structure of the questionnaire with good factor loadings and no cross-loadings higher than about 0.30 and was therefore chosen as the final solution.

**Table 4. 9: Pattern matrix for the final five-factor solution of the FAS**

| | Component | | | | |
|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** |
| V45 | **0.8694** | -0.0039 | -0.0524 | -0.0203 | 0.0168 |
| V38 | **0.8308** | -0.0331 | 0.0323 | -0.0043 | -0.1164 |
| V54 | **0.8261** | -0.1221 | -0.1671 | 0.0102 | 0.0837 |
| V47 | **0.7912** | 0.1323 | 0.0646 | 0.1428 | -0.2182 |
| V52 | **0.7550** | 0.0304 | 0.0030 | 0.1404 | -0.0430 |
| V50 | **0.7401** | -0.0595 | 0.0035 | -0.2987 | 0.3421 |
| V44 | **0.7055** | 0.0398 | 0.1332 | -0.0326 | 0.0321 |
| V48 | **0.6684** | 0.1566 | 0.0639 | 0.0376 | 0.0003 |
| V51 | **0.6159** | -0.0982 | -0.0309 | 0.1561 | 0.2359 |
| V46 | **0.5162** | 0.0836 | 0.0341 | 0.3502 | -0.0799 |
| V20 | 0.0972 | **0.9634** | -0.1070 | -0.0511 | -0.1103 |
| V23 | -0.1882 | **0.8848** | -0.0215 | 0.0883 | 0.0692 |
| V22 | 0.0531 | **0.8779** | -0.0214 | -0.0411 | -0.0676 |
| V21 | -0.0233 | **0.8701** | -0.0557 | -0.0324 | 0.0725 |
| V25 | 0.0010 | **0.6158** | 0.1067 | 0.0490 | 0.0729 |
| V24 | -0.0203 | **0.5629** | 0.1042 | 0.0607 | 0.1993 |
| V8 | 0.0867 | -0.1326 | **0.9862** | -0.0256 | -0.1433 |
| V12 | -0.1917 | 0.0296 | **0.9304** | -0.0043 | -0.2230 |
| V7 | 0.0743 | -0.0976 | **0.8573** | -0.0027 | -0.0494 |
| V11 | 0.0955 | 0.0535 | **0.6272** | -0.1730 | 0.2437 |
| V9 | -0.0584 | 0.0019 | **0.5808** | -0.0156 | 0.2690 |
| V16 | 0.0838 | 0.1149 | **0.5247** | -0.0351 | 0.0508 |
| V17 | 0.1448 | 0.1580 | **0.5404** | 0.0398 | 0.1747 |
| V33 | -0.0260 | -0.0341 | -0.1347 | **0.9923** | -0.1522 |
| V32 | 0.0682 | 0.0307 | -0.0984 | **0.8051** | 0.0165 |
| V34 | 0.1409 | 0.0281 | 0.0382 | **0.7213** | -0.0401 |
| V31 | -0.0331 | -0.0296 | 0.0837 | **0.7097** | 0.1237 |
| V43 | -0.0575 | 0.0699 | 0.1873 | **0.6144** | 0.1211 |

| | | | | |
|---|---|---|---|---|
| V60 | -0.1631 | 0.0199 | -0.0077 | 0.0711 | **0.8118** |
| V61 | 0.0218 | 0.0491 | -0.0985 | 0.1206 | **0.7930** |
| V57 | 0.2036 | -0.1005 | -0.1911 | 0.1160 | **0.7838** |
| V18 | -0.1559 | -0.1303 | 0.0887 | 0.3720 | **-0.7420** |
| V64 | -0.0194 | -0.0808 | 0.0385 | 0.2842 | **0.5012** |
| V37 | 0.0414 | 0.0166 | 0.2287 | 0.2720 | **0.5123** |

Extraction method: Principal Component Analysis      Rotation method: Promax with Kaiser normalisation
a. Rotation converged in 5 iterations.

The reliability of the final FAS (n = 208; α = 0.95) and its subscales, namely Love (α = 0.94); Similarity (α = 0.91); Proximity (α = 0.87); Significance (α = 0.88) and Knowledge (α = 0.85), indicated high in accordance with the guidelines provided by DeVellis (2012) (see Tables 4.10 to 4.14).

**Table 4. 10: Reliability analysis of factor 1: Love**

| Factor 1: Love (α = 0.94) | | |
|---|---|---|
| **Variable** | **Correlation with total** | **Alpha** |
| V38 | 0.67 | 0.93 |
| V44 | 0.77 | 0.93 |
| V45 | 0.77 | 0.93 |
| V46 | 0.73 | 0.93 |
| V47 | 0.81 | 0.93 |
| V48 | 0.79 | 0.93 |
| V50 | 0.69 | 0.93 |
| V51 | 0.77 | 0.93 |
| V52 | 0.80 | 0.93 |
| V54 | 0.62 | 0.94 |

**Table 4. 11: Reliability analysis of factor 2: Similarity**

| Factor 2: Similarity (α = 0.91) | | |
|---|---|---|
| **Variable** | **Correlation with total** | **Alpha** |
| V20 | 0.76 | 0.89 |
| V21 | 0.77 | 0.88 |
| V22 | 0.74 | 0.89 |
| V23 | 0.78 | 0.88 |
| V24 | 0.71 | 0.89 |
| V25 | 0.68 | 0.90 |

**Table 4. 12: Reliability analysis of factor 3: Proximity**

| Factor 3: Proximity (α = 0.87) | | |
|---|---|---|
| Variable | Correlation with total | Alpha |
| V7 | 0.69 | 0.84 |
| V8 | 0.74 | 0.83 |
| V9 | 0.62 | 0.85 |
| V11 | 0.73 | 0.84 |
| V12 | 0.50 | 0.87 |
| V16 | 0.59 | 0.86 |
| V17 | 0.61 | 0.85 |

**Table 4. 13: Reliability analysis of factor 4: Significance**

| Factor 4: Significance (α = 0 .88) | | |
|---|---|---|
| Variable | Correlation with total | Alpha |
| V31 | 0.73 | 0.85 |
| V32 | 0.71 | 0.85 |
| V33 | 0.62 | 0.87 |
| V34 | 0.75 | 0.84 |
| V43 | 0.74 | 0.85 |

**Table 4. 14: Reliability analysis of factor 5: Knowledge**

| Factor 5: Knowledge (α = 0.85) | | |
|---|---|---|
| Variable | Correlation with total | Alpha |
| V18 | 0.47 | 0.85 |
| V37 | 0.71 | 0.82 |
| V57 | 0.72 | 0.81 |
| V60 | 0.62 | 0.83 |
| V61 | 0.77 | 0.80 |
| V64 | 0.55 | 0.84 |

The calculated composite scores for the FAS based on the final solution were:

*Love*          :     *v38 + v44 + v45 + v46 + v47 + v48 + v50 + v51 + v52 + v54 /10.*

*Similarity*     :     *v20 + v21 + v22 + v23 + v24 + v25 / 6.*

*Proximity*      :     *v7 + v8 + v9 + v11+ v12 + v16 + v17 / 7.*

*Significance*   :     *v31 + v32 + v33 + v34 + v43 / 5.*

*Knowledge*      :     *v18 + v37 + v57 + v60 + v61 + v64 / 6.*

### 4.4.2.2.     Trait Well-Being Inventory (TWBI)

As mentioned in Chapter 3, Section 3.6.2.3, the reliability of the TWBI full scale (n = 208; α = 0.90) and its subscales, Mood Level (α = 0.85) and Life Satisfaction (α = 0.84) were regarded as high (Cohen et al., 2007). The pattern of correlation between attachment and

subjective well-being confirmed the assumed theoretical relationships hypothesised, which was taken as convergent validity evidence for the construct measured by the FAS. The Trait Well-Being displays a strong relationship with both Mood Level (p = <.0001) and General Life Satisfaction (p = <.0001) (see Table 4. 16 below).

### 4.4.2.3. Scale distribution of the Family Attachment Scale and the Trait Well-Being Inventory

The distributional properties of the Family Attachment Scale and of the Trait Well-Being Inventory and its subscales are indicated in Table 4.15.

**Table 4. 15: Distributional properties of the Family Attachment Scale and Trait Well-being Inventory, including subscales**

| Variable | Mean | Median | Standard Deviation | Lower Quartile | Upper Quartile | Skewness | Kurtosis | Min | Max |
|---|---|---|---|---|---|---|---|---|---|
| TWBTS | 4.31 | 4.46 | 0.89 | 3.85 | 4.92 | -0.86 | 0.55 | 1.38 | 6.00 |
| TWBMLS | 4.16 | 4.33 | 1.02 | 3.67 | 4.83 | -0.83 | 0.70 | 1.00 | 6.00 |
| TWBLSS | 4.43 | 4.57 | 0.90 | 3.86 | 5.00 | -0.77 | 0.45 | 1.57 | 6.00 |
| FASTS | 2.93 | 3.01 | 0.58 | 2.59 | 3.35 | -0.54 | -0.21 | 1.32 | 4.00 |
| Love | 3.25 | 3.40 | 0.64 | 2.90 | 3.80 | -0.93 | 0.27 | 1.10 | 4.00 |
| Similarity | 2.54 | 2.50 | 0.61 | 2.00 | 3.00 | 0.13 | -0.57 | 1.00 | 4.00 |
| Proximity | 2.95 | 3.00 | 0.68 | 2.43 | 3.57 | -0.38 | -0.77 | 1.29 | 4.00 |
| Significance | 2.78 | 2.80 | 0.74 | 2.20 | 3.30 | -0.33 | -0.29 | 1.00 | 4.00 |
| Knowledge | 2.89 | 3.00 | 0.75 | 2.33 | 3.50 | -0.47 | -0.59 | 1.00 | 4.00 |

*TWBTS Trait Well-Being Total Score; TWBMLS – Trait Well-Being Mood Level Score; TWBLSS – Trait Well-Being Life Satisfaction Score; FASTS – Family Attachment Scale Total Score*

The reported mean and median scores of the Trait Well-Being Total Scores (TWBTS) and subscales, which include the Trait Well-Being Mood Level Score (TWBML) and Trait Well-Being Life Satisfaction Score (TWBLSS), as well as the mean and median of the Family Attachment Scale Total Score (FASTS) indicated a very close relationship, indicating that possible outliers did not exercise an extreme negative influence on the distribution of the data. Fabrigar et al (2012) state that an absolute skewness value of ≥ 2 and a kurtosis value of ≥ 7 can be considered as substantial deviations from normal parameter estimates. Thus when the skewness and kurtosis values of a particular set of measured variables are substantially lower than the above guidelines, they should not be problematic (see Table 4.15) (Fabrigar et al., 2012).

Next, the histograms of each subscale of the TWBTS and subscales, as well as of the FASTS and subscales were visually inspected in order to determine the shape of the distribution Figures 4.2 to 4.10). Inspection of the histograms revealed that only the distribution of the subscale Love was possibly problematic, indicating a ceiling effect. Therefore it can be inferred

from Figures 4.2 to 4.10 that the distribution of the scale scores is towards normality. Most of the scale scores are normally distributed, indicating no significant floor or ceiling effects.
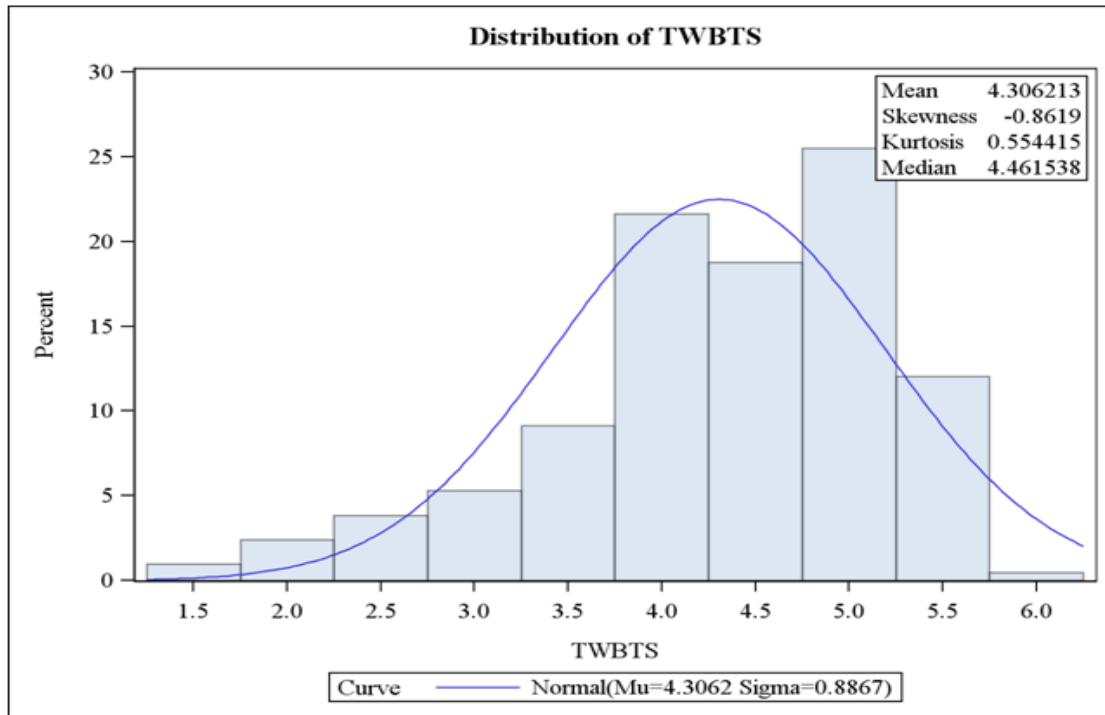


**Figure 4. 2: Histogram distribution analysis of TWBTS**



**Figure 4. 3: Histogram distribution analysis of TWBMLS**
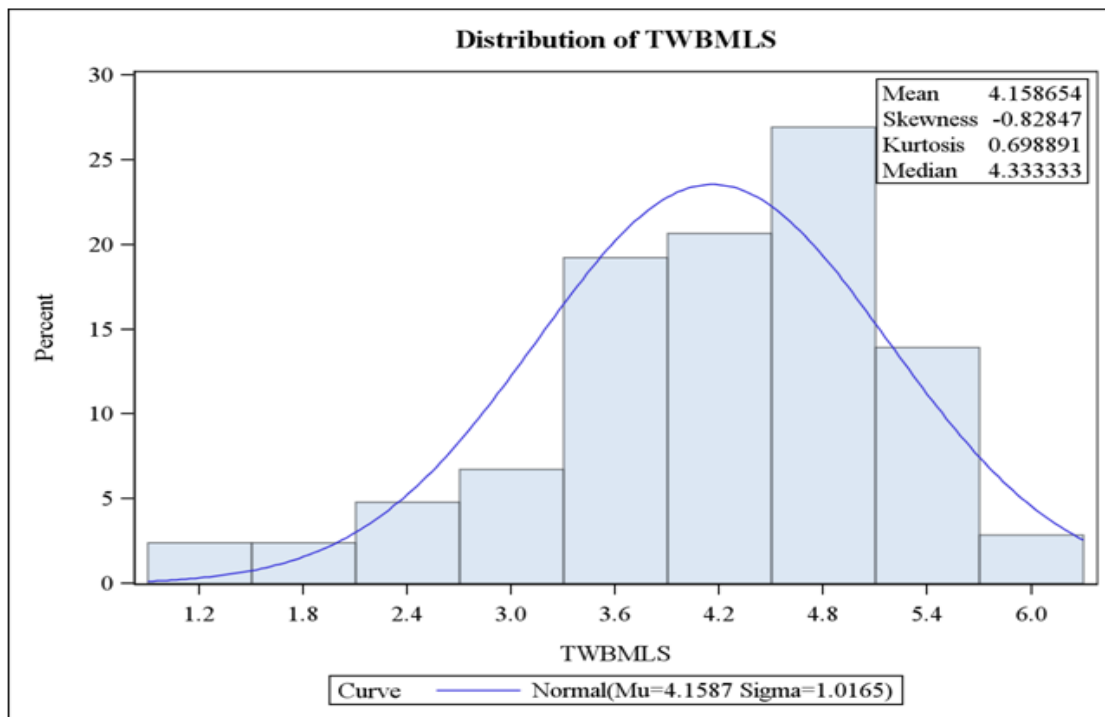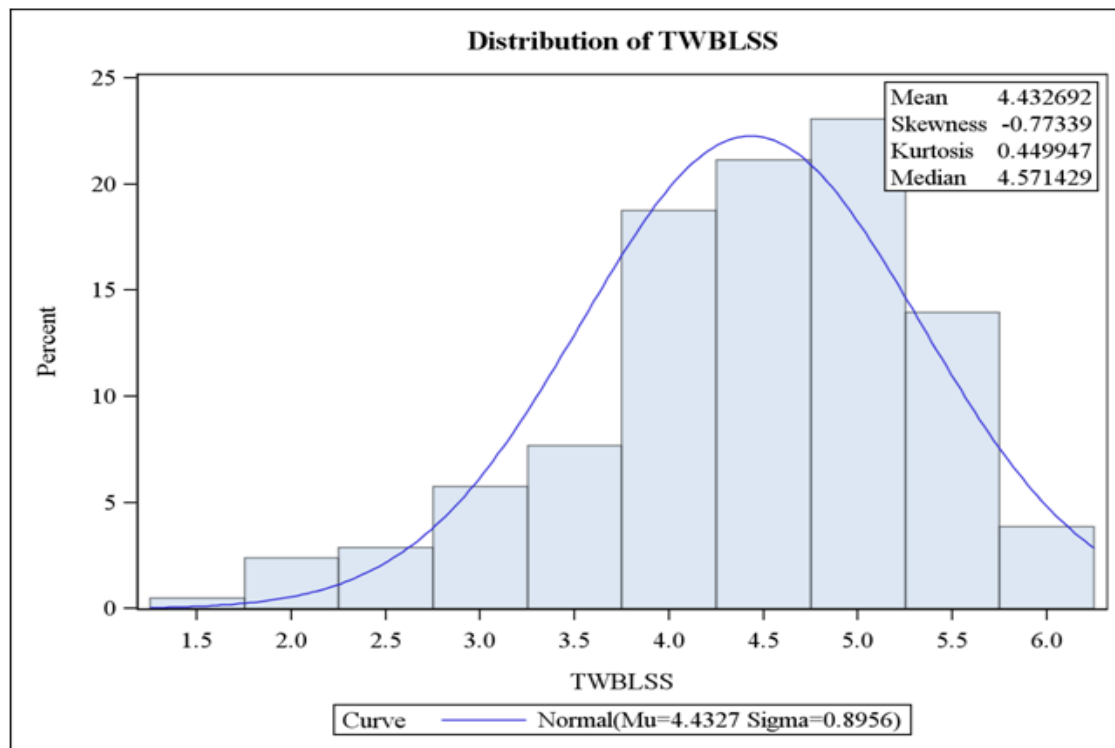
**Figure 4. 4: Histogram distribution analysis of TWBLSS**
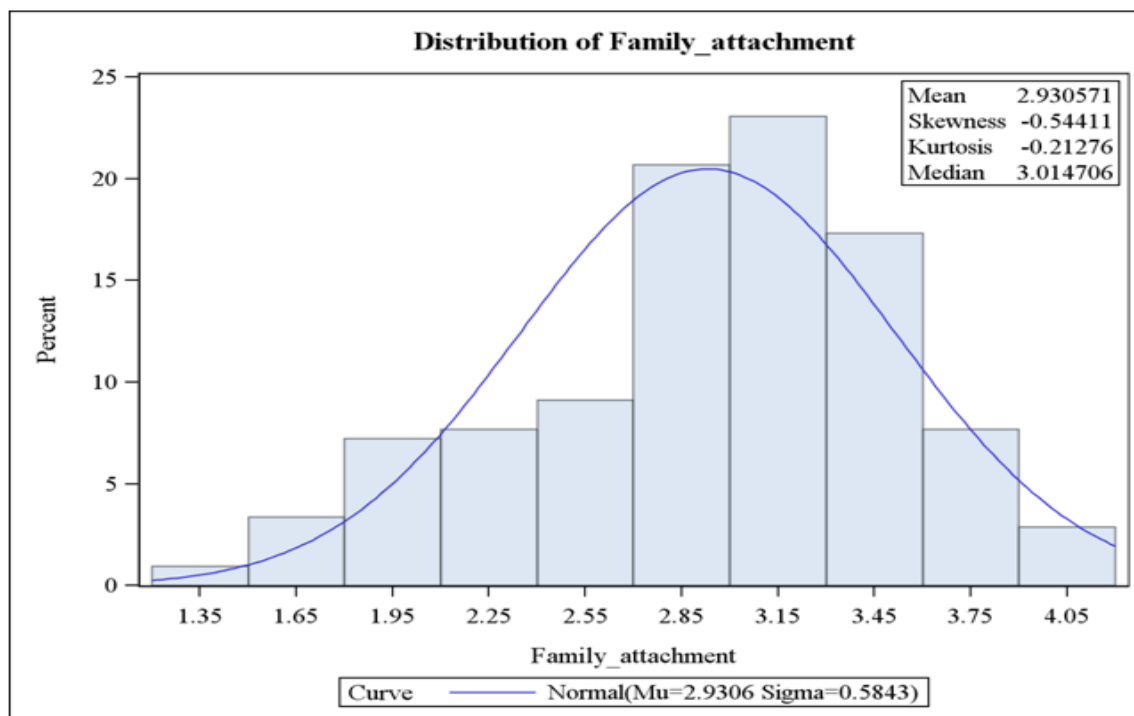


**Figure 4. 5: Histogram distribution analysis of FASTS**
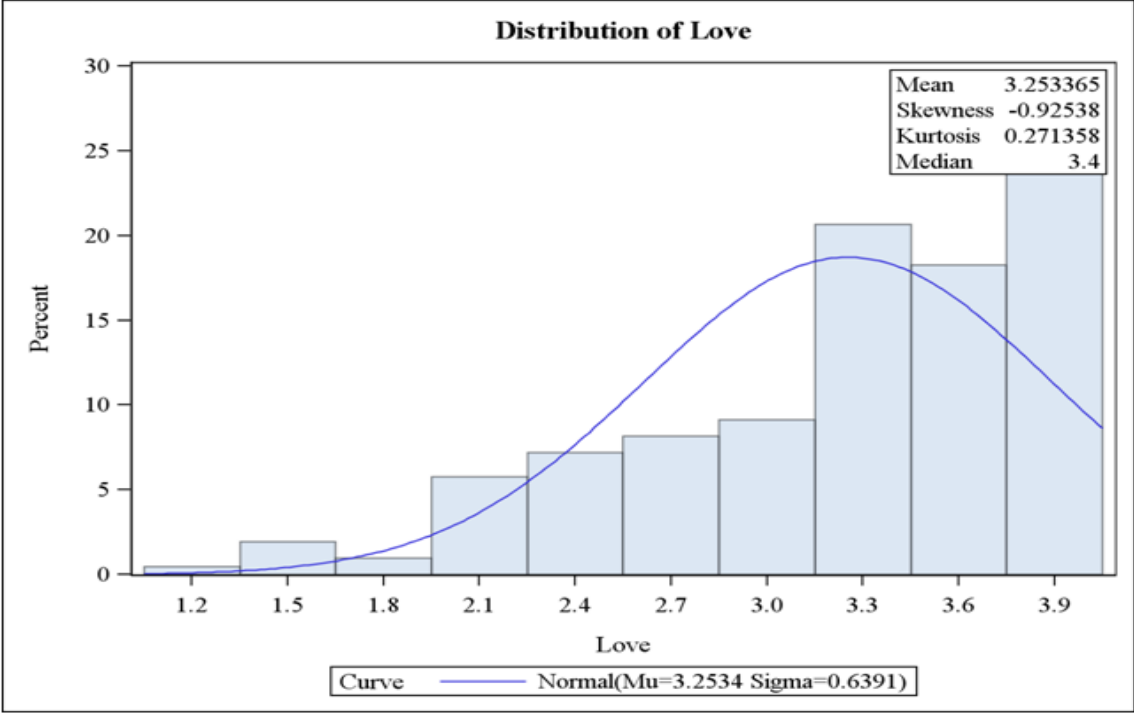
**Figure 4. 6: Histogram distribution analysis of Love**
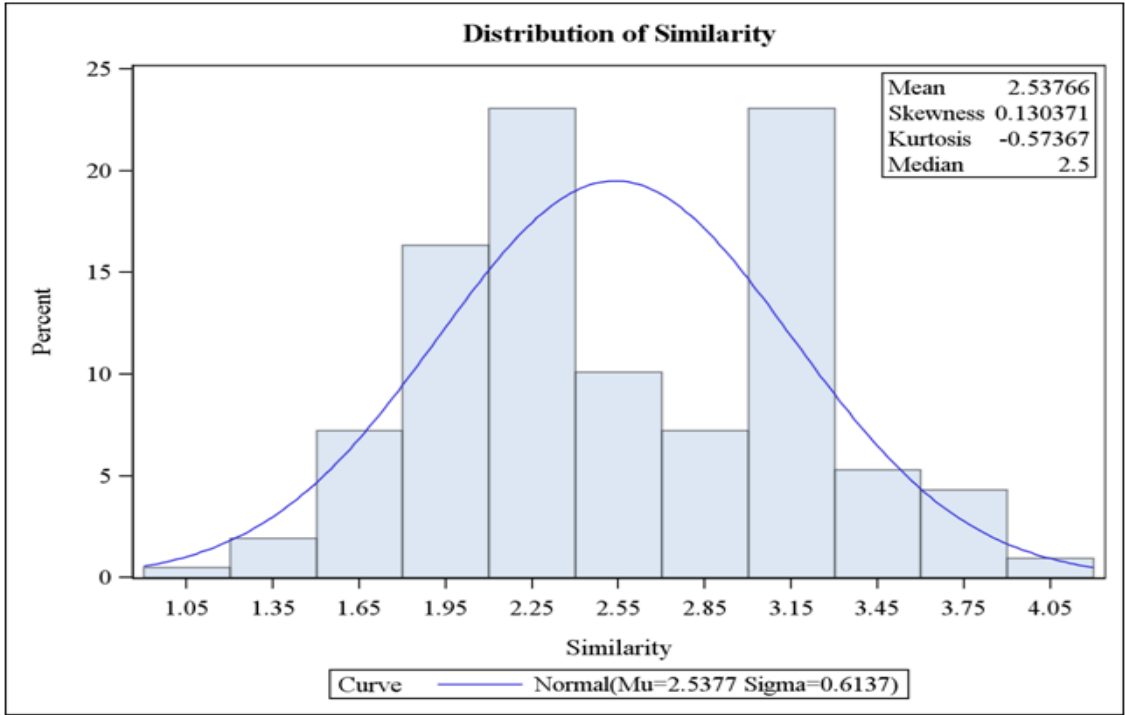


**Figure 4. 7: Histogram distribution analysis of Similarity**
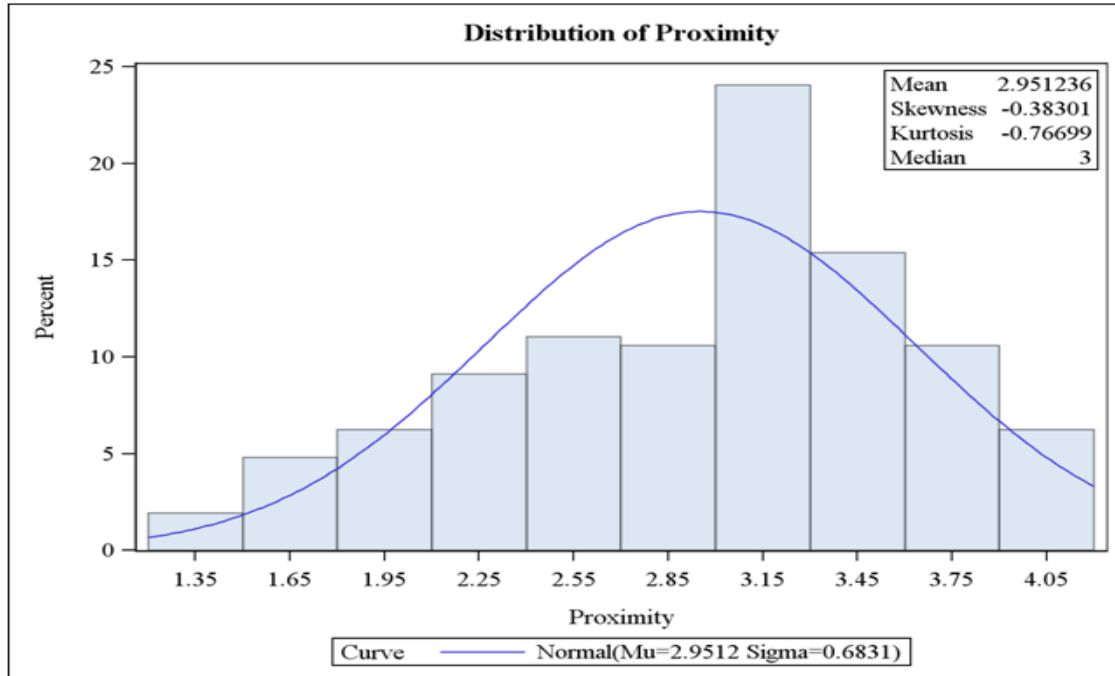
**Figure 4. 8: Histogram distribution analysis of Proximity**
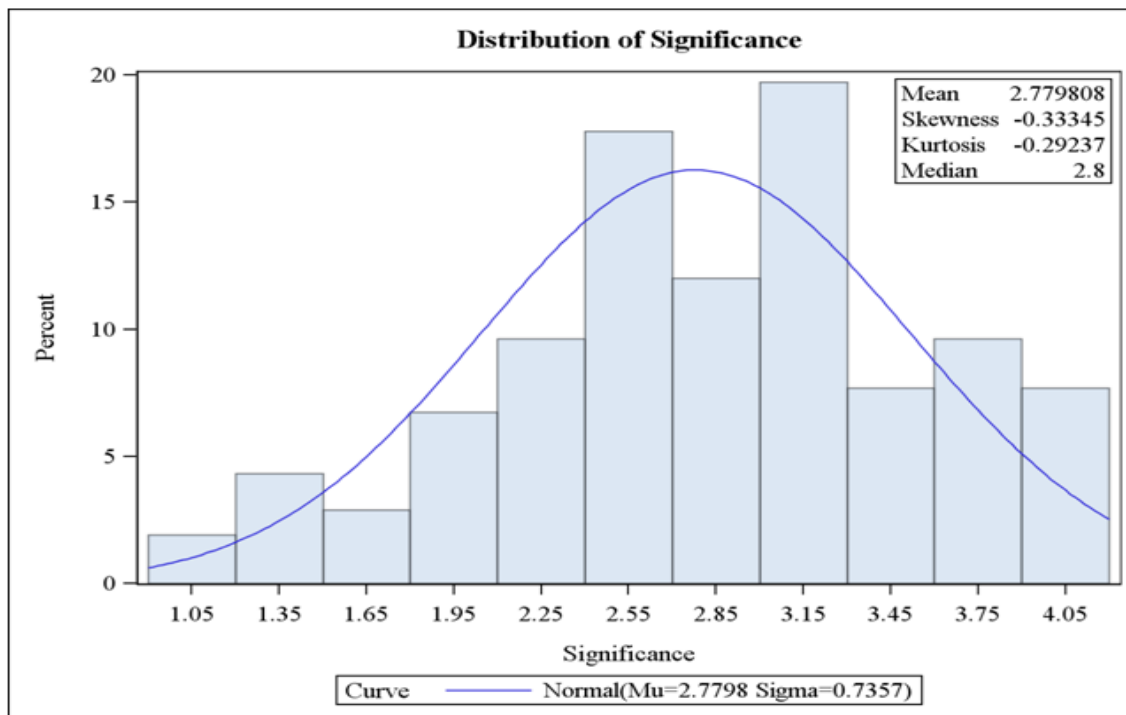


**Figure 4. 9: Histogram distribution analysis of Significance**
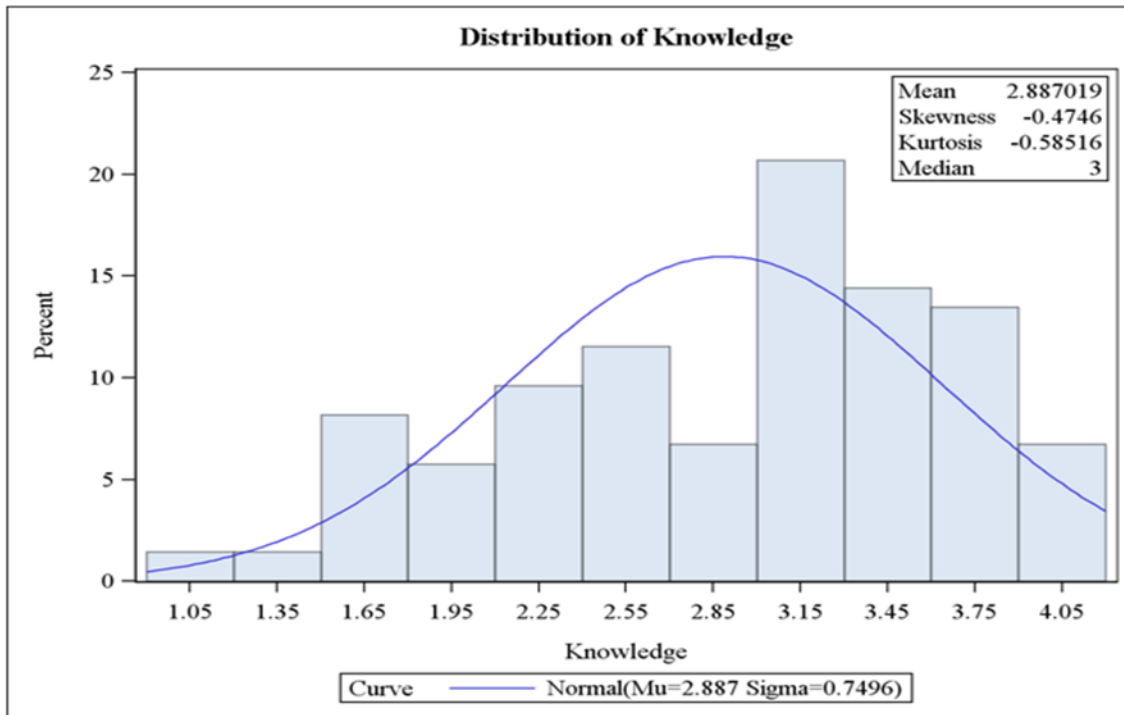
**Figure 4. 10: Histogram distribution analysis of Knowledge**
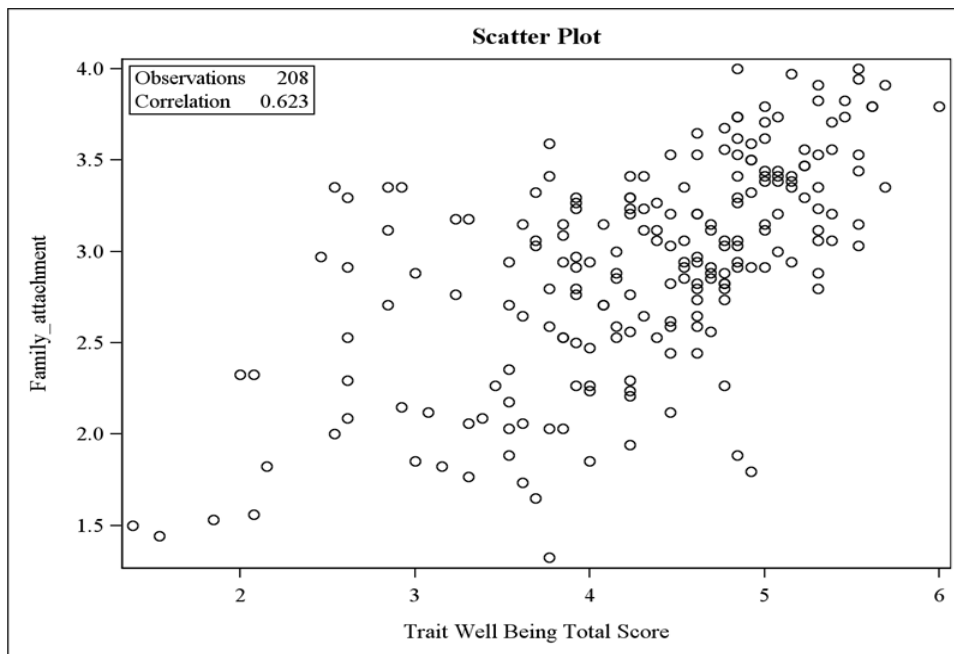


**Figure 4. 11: Scatter plot for Family Attachment Scale Total Score and Trait Well-Being Total Score**

In addition, I analysed the linearity assumptions for the Family Attachment Scale Total Score and Trait Well-Being Total Score as well as subscales (see Figures 4.11 to Figure 4.25).
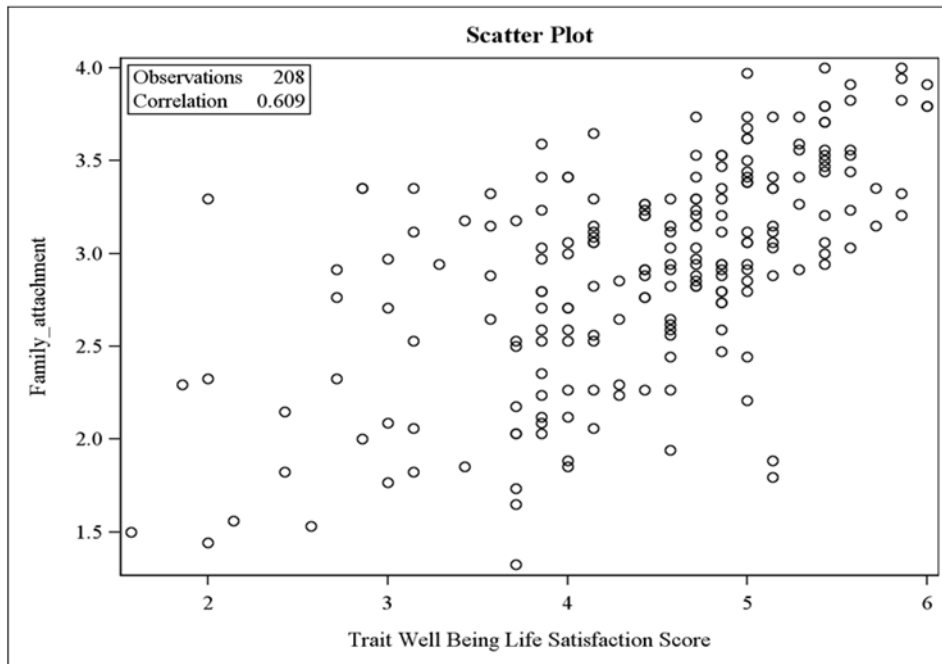
**Figure 4. 12: Scatter plot for Family Attachment Scale Total Score and Life Satisfaction Score**
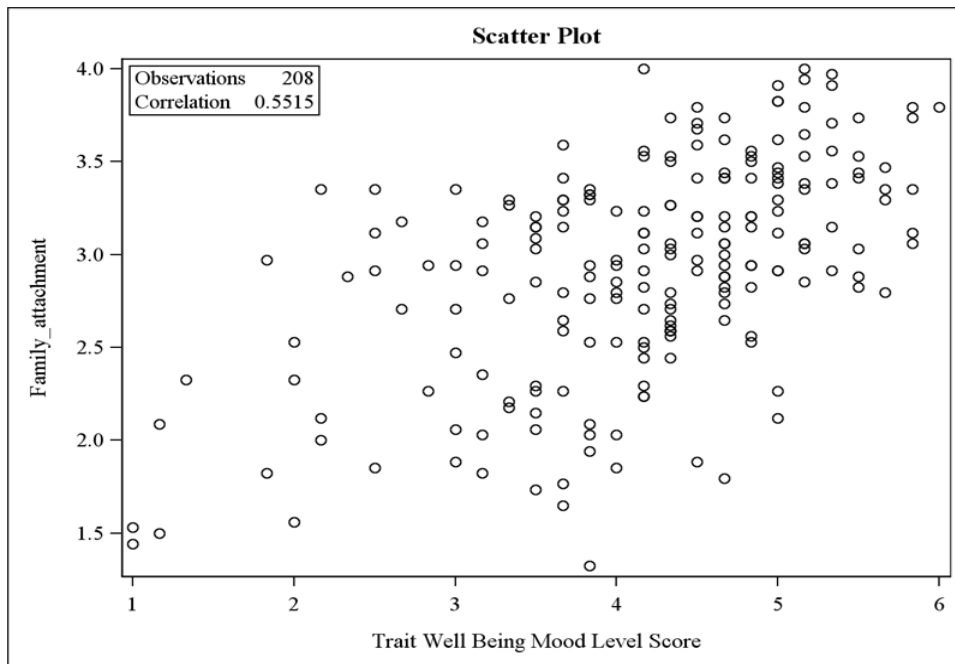


**Figure 4. 13: Scatter plot for Family Attachment Scale Total Score and Trait Well-Being Mood Level Score**
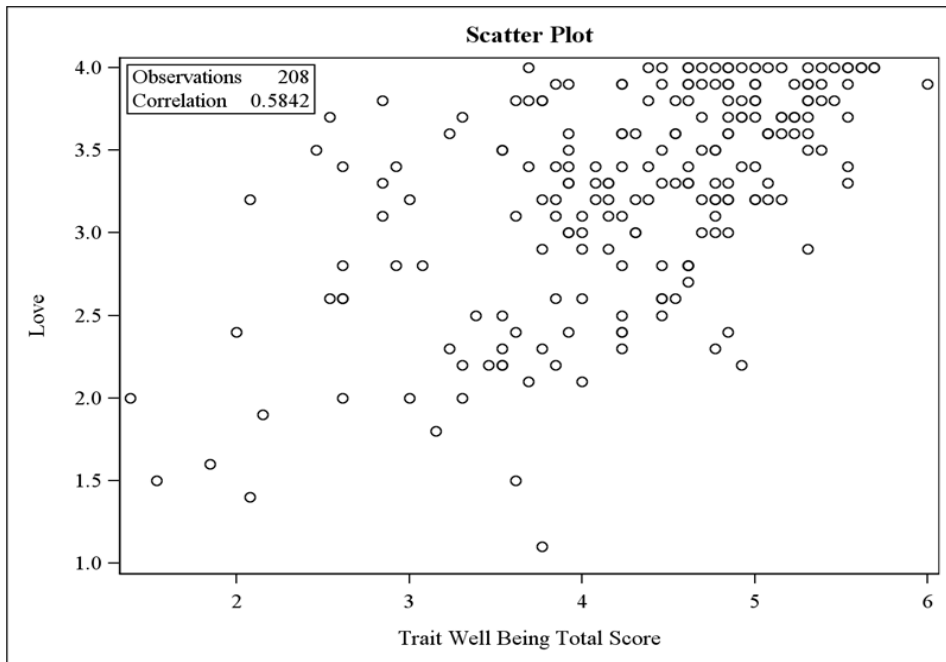
**Figure 4. 14: Scatter plot for Trait Well-Being Total Score and Love**
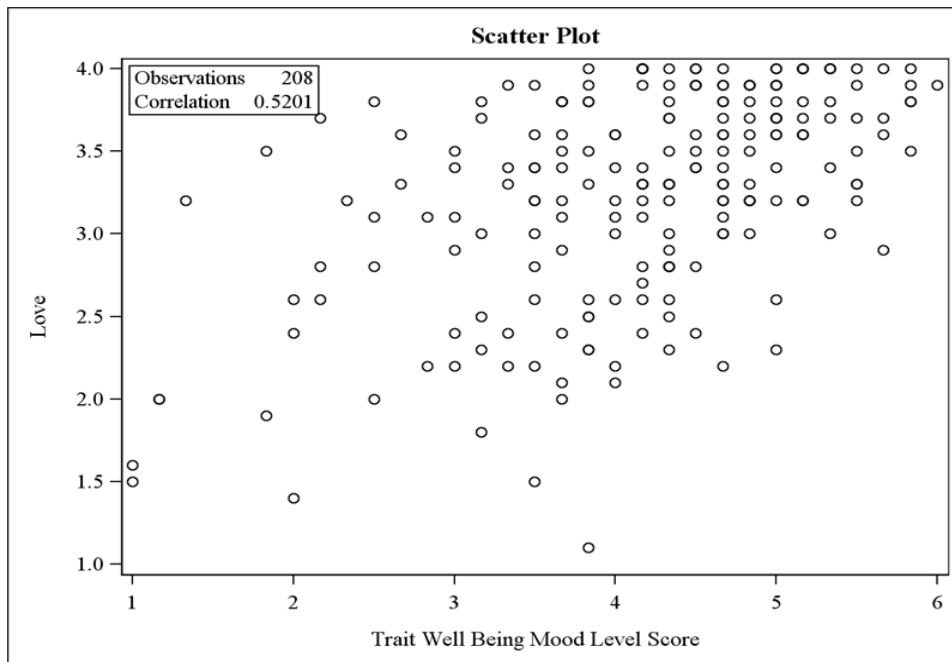


**Figure 4. 15: Scatter plot for Trait Well-Being Mood Level Score and Love**
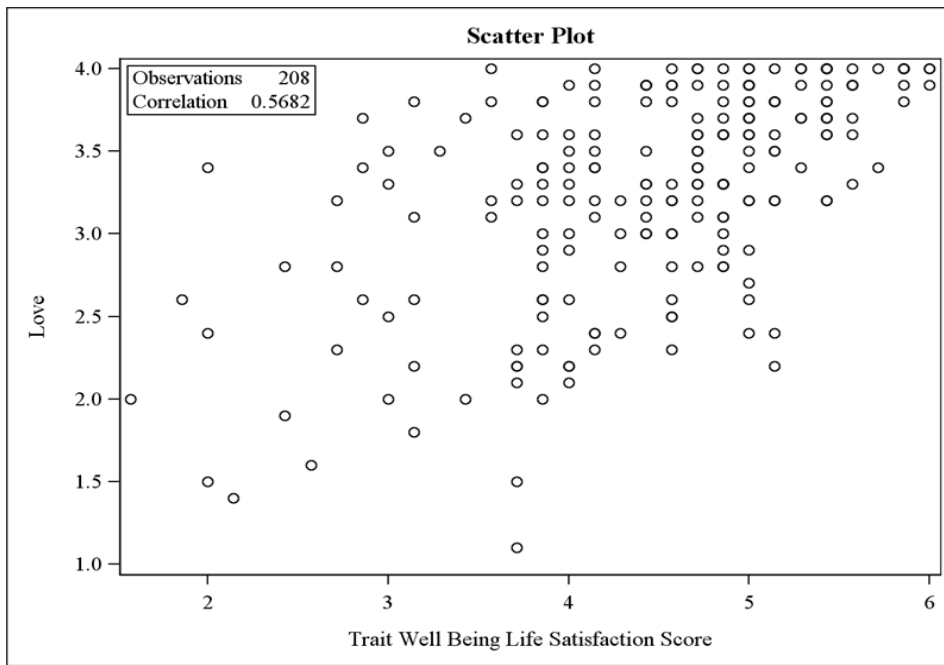
**Figure 4. 16: Scatter plot for Trait Well-Being Life Satisfaction Score and Love**
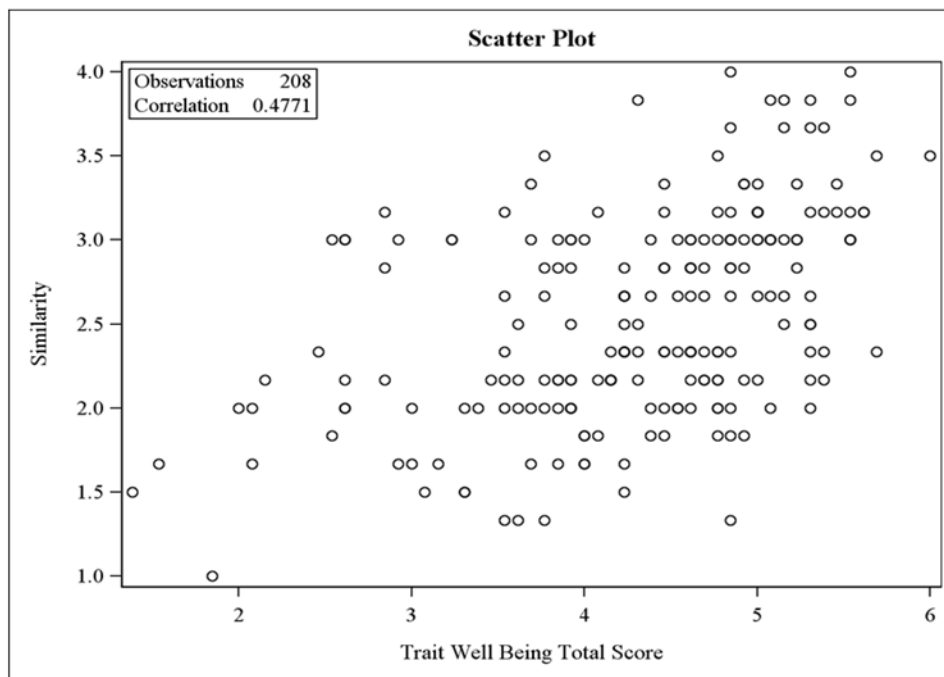


**Figure 4. 17: Scatter plot for Trait Well-Being Total Score and Similarity**

**Figure 4. 18: Scatter plot for Trait Well-Being Mood Level Score and Similarity**
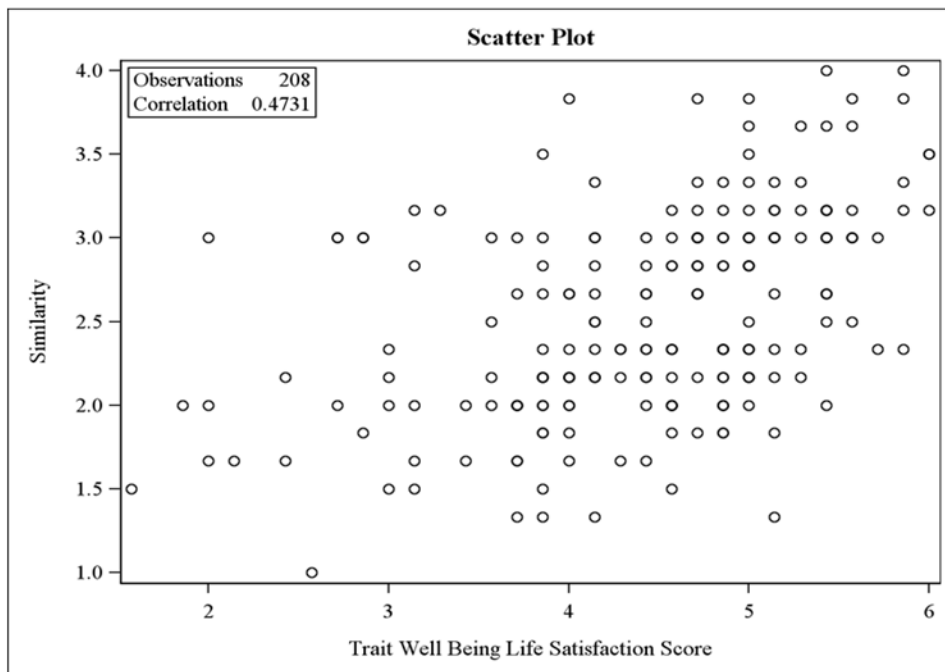


**Figure 4. 19: Scatter plot for Trait Well-Being Life Satisfaction Score and Similarity**
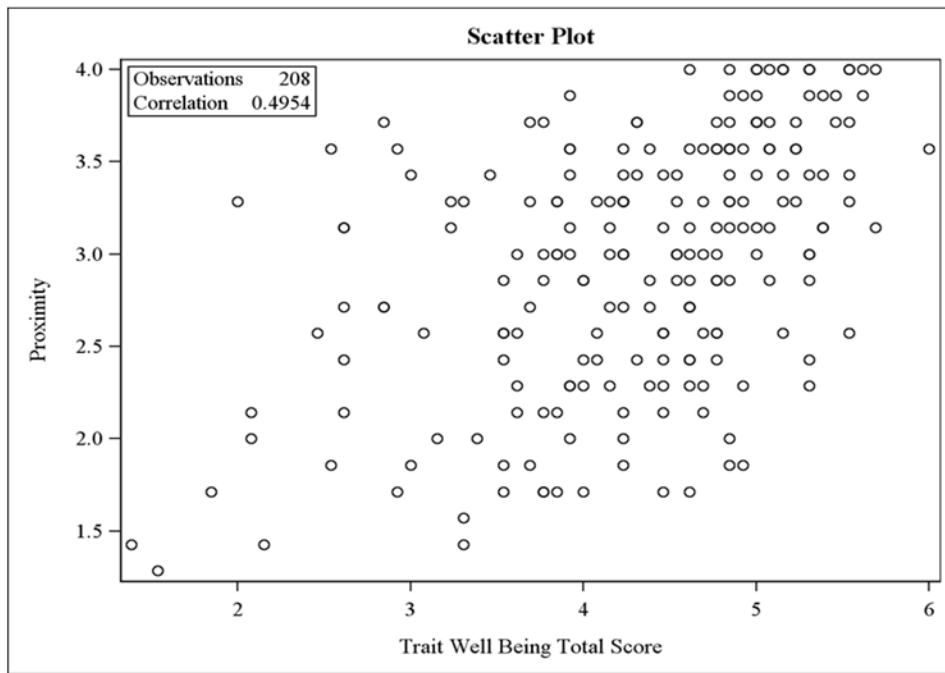
**Figure 4. 20: Scatter plot for Trait Well-Being Total Score and Proximity**
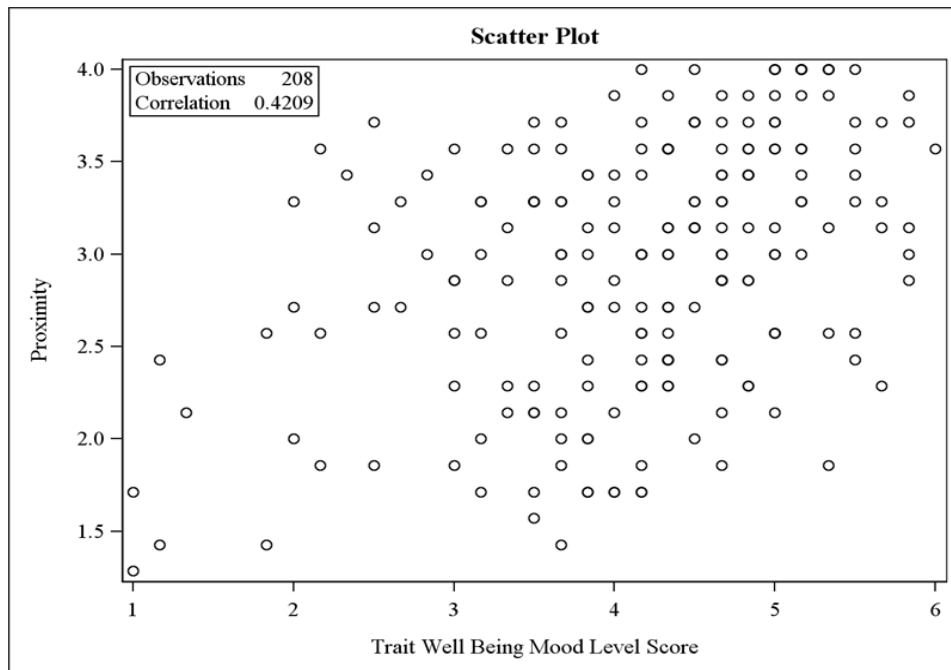


**Figure 4. 21: Scatter plot for Trait Well-Being Mood Level Score and Proximity**
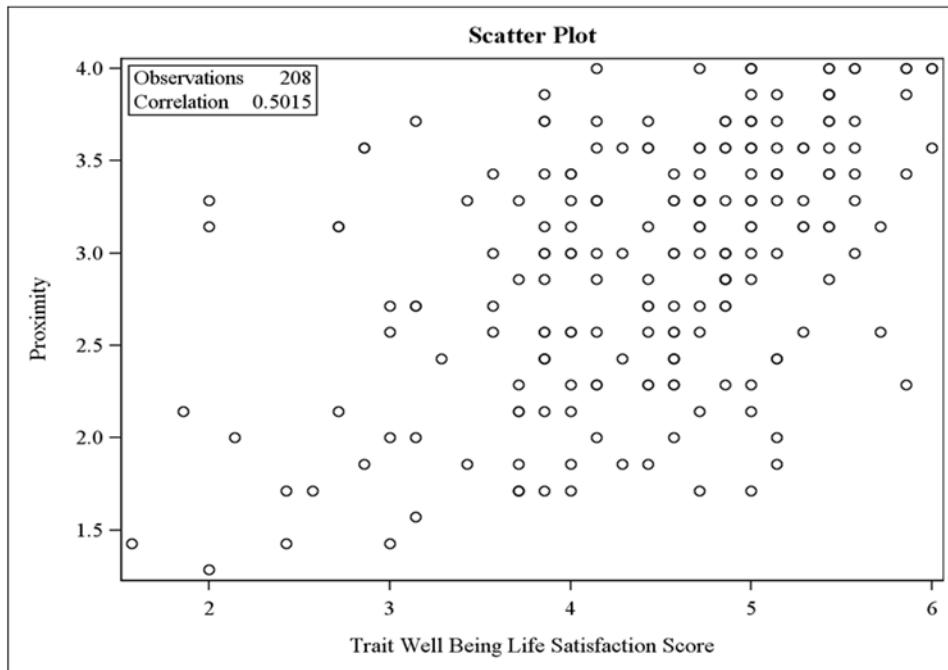
**Figure 4. 22: Scatter plot for Trait Well-Being Life Satisfaction Score and Proximity**
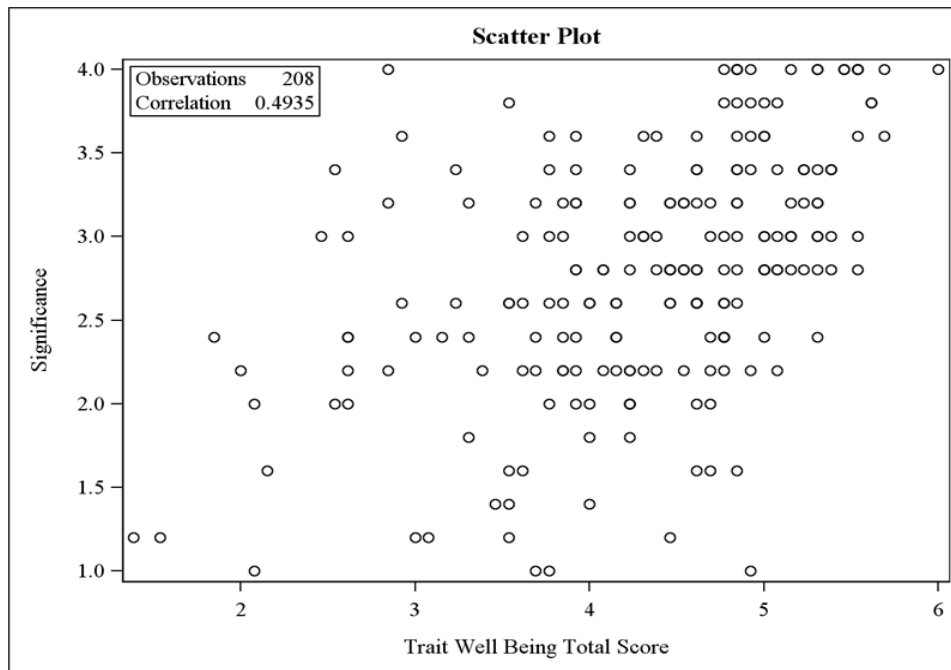


**Figure 4. 23: Scatter plot for Trait Well-Being Total Score and Significance**
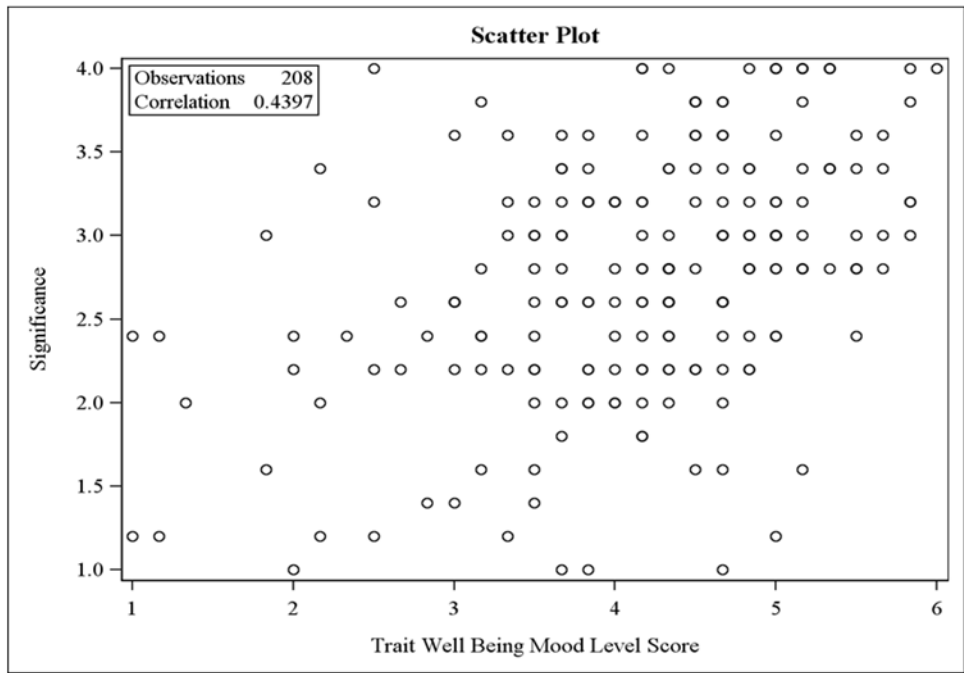
**Figure 4. 24: Scatter plot for Trait Well-Being Mood Level Score and Significance**
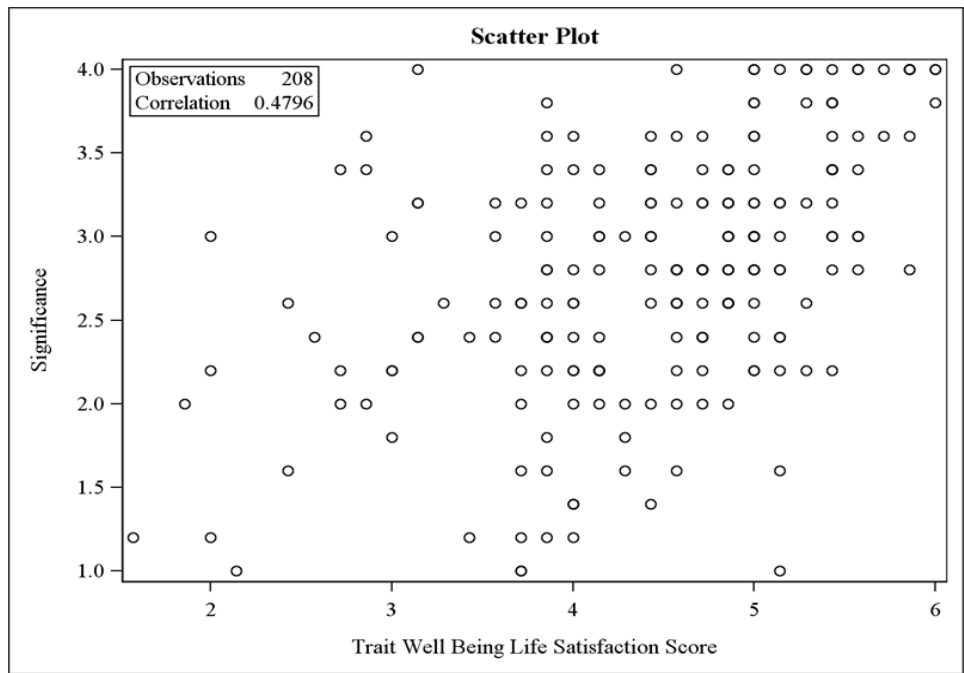


**Figure 4. 25: Scatter plot for Trait Well-Being Life Satisfaction Score and Significance**

### 4.4.2.4.    Correlational analysis

To assess a scale association, a Pearson Correlation Coefficient analysis was conducted on the FAS and subscales Love, Similarity, Proximity, Significance and Knowledge with TWBI full scale and its subscales, Mood Level and Life Satisfaction. The results are presented in Table 4.16.

**Table 4. 16: Pearson correlation coefficients (n = 208)**

|                          | TWBTS   | TWBMLS  | TWBLSS  |
|--------------------------|---------|---------|---------|
| Family Attachment Scale  | .62     | .55     | .61     |
|                          | <.0001  | <.0001  | <.0001  |
| Love                     | .58     | .52     | .57     |
|                          | <.0001  | <.0001  | <.0001  |
| Similarity               | .48     | .41     | .47     |
|                          | <.0001  | <.0001  | <.0001  |
| Proximity                | .49     | .42     | .50     |
|                          | <.0001  | <.0001  | <.0001  |
| Significance             | .49     | .44     | .48     |
|                          | <.0001  | <.0001  | <.0001  |
| Knowledge                | .60     | .55     | .57     |
|                          | <.0001  | <.0001  | <.0001  |

TWBTS – Trait Well-Being Total Score; TWBMLS – Trait Well-Being Mood Level Score; TWBLSS – Trait Well-Being Life Satisfaction Score
Correlation significance level p<.05

Table 4.16 shows that all the independent variables (Love, Similarity, Proximity, Significance, and Knowledge) correlated positively with the dependent variables (TWBTS, TWBMLS, TWBLSS) in the present study. Correlations ranging between 0.42 (p = <.0001) (Mood level and Similarity) and 0.62 (p = <.0001) (FAS and TWBTS) indicated a moderate relationship between variables and that all the variables correlated. In addition, the intercorrelations between the TWBI and the FAS were theoretically in the expected direction, indicating a significant and positive relationship between Family Attachment and Trait Well-Being (p = <.0001). In the next section I report on the findings from the analysis of variances in an attempt to answer my Primary Research Question: What are the relational requirements of attachment in adolescent families?

### 4.4.2.5.    General Linear Model procedure (GLM)

With the help of a statistical consultant I constructed a model entering the TWBTS as the dependent variable and Love, Similarity, Proximity, Significance and Knowledge as the independent variables, along with gender, marital status and an interaction term (gender and marital status) to establish whether variance in the independent variables would contribute

significantly to possibly suggest predictive variance in the Trait Well-Being Total Score (TWBTS). The result appears in Table 4.17 below.

**Table 4. 17: The General Linear Procedure (GLM)**

| Source | DF | Type III SS | Mean Square | F Value | Pr > F |
|---|---|---|---|---|---|
| Love | 1 | 3.329 | 3.329 | 6.91 | 0.009 |
| Similarity | 1 | 0.151 | 0.151 | 0.31 | 0.576 |
| Proximity | 1 | 0.268 | 0.268 | 0.56 | 0.456 |
| Significance | 1 | 0.140 | 0.140 | 0.29 | 0.591 |
| Knowledge | 1 | 4.377 | 4.377 | 9.09 | 0.003 |
| V2 | 1 | 0.010 | 0.010 | 0.02 | 0.886 |
| V6 | 3 | 0.114 | 0.038 | 0.08 | 0.971 |
| V2*V6 | 3 | 2.927 | 0.976 | 2.03 | 0.112 |

Using a p-value of 0.05 all but Love and Knowledge show non-significant contributions to the outcome variable. I decided to refine the model in a series of steps and in each step removed the least significant suggested predictor from the model before running the model again. This continued through five steps (Tables 4.18 – 4.22) until I decided on the final model (Table 4.23).

**Table 4. 18: Removal of variable 6 (marital status of parents)**

| Source | DF | Type III SS | Mean Square | F Value | Pr > F |
|---|---|---|---|---|---|
| Love | 1 | 3.190 | 3.190 | 6.52 | 0.011 |
| Similarity | 1 | 0.246 | 0.247 | 0.50 | 0.479 |
| Proximity | 1 | 0.119 | 0.119 | 0.24 | 0.623 |
| Significance | 1 | 0.120 | 0.120 | 0.24 | 0.622 |
| Knowledge | 1 | 5.198 | 5.198 | 10.63 | 0.001 |
| V2 | 1 | 0.011 | 0.011 | 0.02 | 0.881 |
| V6 | 3 | 0.177 | 0.059 | 0.12 | 0.948 |

**Table 4. 19: Removal of variable 2 (gender)**

| Source | DF | Type III SS | Mean Square | F Value | Pr > F |
|---|---|---|---|---|---|
| Love | 1 | 3.179 | 3.179 | 6.59 | 0.011 |
| Similarity | 1 | 0.221 | 0.221 | 0.46 | 0.499 |
| Proximity | 1 | 0.142 | 0.142 | 0.29 | 0.589 |
| Significance | 1 | 0.143 | 0.143 | 0.30 | 0.586 |
| Knowledge | 1 | 5.236 | 5.236 | 10.85 | 0.001 |
| V2 | 1 | 0.004 | 0.004 | 0.01 | 0.930 |

**Table 4. 20: Removal of Proximity**

| Source | DF | Type III SS | Mean Square | F Value | Pr > F |
|---|---|---|---|---|---|
| Love | 1 | 3.181 | 3.181 | 6.62 | 0.011 |
| Similarity | 1 | 0.230 | 0.230 | 0.48 | 0.490 |
| Proximity | 1 | 0.141 | 0.141 | 0.29 | 0.588 |
| Significance | 1 | 0.145 | 0.145 | 0.30 | 0.583 |
| Knowledge | 1 | 5.235 | 5.235 | 10.90 | 0.001 |

**Table 4. 21: Removal of Significance**

| Source | DF | Type III SS | Mean Square | F Value | Pr > F |
|---|---|---|---|---|---|
| Love | 1 | 3.904 | 3.904 | 8.16 | 0.005 |
| Similarity | 1 | 0.358 | 0.358 | 0.75 | 0.388 |
| Significance | 1 | 0.175 | 0.175 | 0.36 | 0.547 |
| Knowledge | 1 | 5.729 | 5.729 | 11.97 | 0.001 |

**Table 4. 22: Removal of Similarity**

| Source | DF | Type III SS | Mean Square | F Value | Pr > F |
|---|---|---|---|---|---|
| Love | 1 | 5.105 | 5.105 | 10.70 | 0.001 |
| Similarity | 1 | 0.485 | 0.485 | 1.02 | 0.314 |
| Knowledge | 1 | 6.534 | 6.534 | 13.70 | 0.000 |

**Table 4. 23: Final model of the General Linear Procedure (GLP)**

| Source | DF | R-Square | Standard Error | Type III SS | F Value | Mean | β | Pr > F |
|---|---|---|---|---|---|---|---|---|
| Intercept | | | 0.25 | | | | 1.68 | <.0001 |
| Model | 2 | | | | 68.05 | 32.47 | | <.0001 |
| Love | 1 | | 0.12 | 6.22 | 13.04 | 6.22 | .42 | 0.0004 |
| Knowledge | 1 | | 0.10 | 9.40 | 19.70 | 9.40 | .44 | <.0001 |
| TWBTS | | 0.40 | | | | 4.3 | | |

Correlation significance level p<.05

In the final model, Love and Knowledge explain a significant proportion of variance in subjective well-being ($R^2$ = 0.40). In addition, they share a significant correlation (p = <.0001). Love (β =.42, p = .0004) and Knowledge (β = .44, p = <.0001) are possibly highly significant suggested predictors of subjective well-being and are expressed in the equation: $Y = \beta_0 + \beta_1(X_1) + \beta_2(X_2)$ where the suggested predictor variable $X_1$ represents the variable Love and $X_2$ represents the variable Knowledge.

The regression equation that can thus be used as a possible suggested prediction to well-being from the Love and Knowledge subscales of the Family Attachment Scale (FAS) is:

Well-being score = 1.68 + (0.42) Love + (0.44) Knowledge.

## 4.5.        SUMMARY OF FINDINGS

In Chapter 4 I discuss the results of the pilot study by presenting the outcomes of the evaluation of the items for the Family Attachment Scale (FAS) by a panel of experts. The panel evaluated the items prior to piloting and subsequently the decision was made to remove six items from the main study as the panel could not reach agreement as to where these six items fit in. Twenty-six participants completed the FAS in the pilot study, of which most were white with a mean age of 17 years. Fourteen items were identified for deletion from the pilot study by using G1 (Fisher-Pearson), Standard Error of Estimation and Pearson 2 Coefficient of Skewness ($Sk_2$), which resulted in 58 items in the FAS that were used to collect data in the main study.

For the main study 208 participants completed the FAS, the majority of whom were white. Roughly two-thirds were female learners with a mean age of 17 years. Most of the participants reported that their parents are married. A Principal Component Analysis with promax rotation was used to determine the number of factors that should be retained. The final solution indicated a five-factor model with acceptable factors and cross-loadings. The reliability of the FAS was regarded as high. The Trait Well-Being Inventory was also administered for validity purposes and its reliability and that of its subscales were regarded as acceptable.

In an attempt to answer the Research Questions, correlational analysis was used to investigate the relationship between attachment and subjective well-being. A General Linear Model (GLM) procedure was also used to investigate whether family attachment possibly predicts well-being. The indices *Love* and *Knowledge* fitted the model, indicating a statistically significant relationship between attachment and subjective well-being.

In the following chapter I interpret the findings of the present study within the context of prior investigations, discuss the contributions of the present study, review its limitations and make recommendations for future investigation.

# CHAPTER 5
# DISCUSSION OF RESULTS, CONTRIBUTIONS, LIMITATIONS AND RECOMMENDATIONS

## 5.1. INTRODUCTION AND OVERVIEW

In the present study I investigated attachment based on the assumption that the quality of family members' relationships is fundamental and can influence adolescent well-being (Anderson, 2005; Evans and Kelley, 2004; Mullin and Arce, 2008). I argued that families provide support and acceptance and are a buffer against adversities (Conger and Conger, 2002; Patterson, 2002a and b). I utilised the work of Neufeld (Neufeld and Maté, 2006) to argue that the quality of the attachment relationship contributes to the development of adolescent well-being.

I proposed that good family relationships support personal and relational transformation by encouraging families to be resourceful through shared efforts (Walsh, 2002). I suggested that attachment is understood as being located in the relationships that sustain the family as a system, which provides the context of adolescent well-being.

The Family Attachment Scale (FAS) based on Neufeld's attachment theory was developed to answer research questions through the General Linear Model Procedure (GLM). The FAS contributed to providing first evidence of the quality of family attachment relationships, whilst the Trait Well-Being Inventory served as a validation tool to investigate the relationship between family attachment and well-being.

## 5.2. SUMMARY OF FINDINGS

### 5.2.1. Development of the Family Attachment Scale (FAS)

The Family Attachment Scale was piloted in 2013 and originally consisted of 92 items. Prior to piloting a panel of experts evaluated the items. Experts reached complete agreement on 31 items and partially agreed on 55 items. Findings from the pilot study resulted in a refined scale; six items on which the panel could not reach agreement were deleted. Reliability analysis ($α = 0.95$) and Principal Component Analysis further reduced the items that resulted in a reliable FAS (FASTS, n = 208; $α = 0.95$) and subscales: Love ($α = 0.94$); Similarity ($α = 0.91$); Proximity ($α = 0.87$); Significance ($α = 0.88$); and Knowledge ($α = 0.85$).

### 5.2.2. Correlational analysis

The pattern of correlations for the FAS indicated that the independent variables *Love, Similarity, Proximity, Significance* and *Knowledge* correlated positively with the dependent variables which include the Trait Well-Being Total Score (TWBTS), the Trait Well-Being Mood Level Score (TWBMLS) and the Trait Well-Being Life Satisfaction Score (TWBLSS). Correlations ranging between 0.42 (Mood level and Similarity) and 0.62 (FAS and TWBTS) indicated a moderate relationship between the variables, which confirmed the theorised assumption that a strong relationship exists between attachment and well-being (p = 0.001).

### 5.2.3. Predictive analysis

In the present study the experience of adolescent family attachment relationships is investigated as a possible suggested predictor of well-being. Of the six dimensions discussed by Neufeld, only two, namely Love and Knowledge, are possible suggested predictors of well-being. The findings are now discussed in terms of the research questions: Which qualities in their family relationships do adolescents value as indicators of family attachment? and How do the indicators of family attachment as reported by adolescents relate to their well-being?

### 5.3. DISCUSSION OF FINDINGS

### 5.3.1. The relational requirements of attachment in a family context

The FAS was developed as a measure for attachment relationships in a family context. Neufeld proposed six requirements for attachment relationships but in the present study it was possible to measure only five dimensions reliably. Neufeld published a book, *Hold on to your kids. Why parents need to matter more than peers.* (Neufeld and Maté, 2006) in which he discussed his attachment theory. However, to my knowledge there is no published research finding available that supports Neufeld's attachment theory. The development of the FAS not only supports Neufeld's broader perspective of attachment, but also serves as first empirical evidence of Neufeld's attachment theory. The findings of the present study indicate that only five of the six indicators can be measured empirically and that some dimensions are perhaps easier to measure than others. I did not assume that Neufeld's dimensions are accurate domains of family attachment as the findings of the present study indicated that not all dimensions are equally important in possibly predicting well-being. The findings of the present study indicated that the relationship between trait well-being, general life satisfaction and positive mood level was as expected. The literature indicates that the quality of relationships within the family

impacts on adolescent well-being. Therefore positive attachment relationships can serve as a protective factor to support families when they experience stress and adversity (Hawley and DeHaan, 1996). Positive family relationships serve as a resource and protective factor for individuals and promote subjective well-being. An individual is thus influenced by nurturing systems (positive family relationships) to develop a positive attitude towards life and satisfaction and well-being (Seligman, 1990). The present study was conducted in an urban South African context and although the sample included mostly white adolescents from middle class families, it was found that their attachment relationships provided them with a secure base from where they are confident to venture and explore the world (Bowlby, 1988). The present study focused deliberately on healthy families and not on families in distress. Belief systems, family organisational patterns and communication within the family promote a sense of meaning and purpose that results in stronger family attachment and adolescent well-being. The literature, such as the work of Sander (2002) and Black and Schutte (2006), supports this finding that individuals who experience feelings of Love and Knowledge also experience greater cohesiveness and connection with their family members and are able to overcome the adversities that are part of human life. Furthermore, greater levels of attachment may be fostered, in terms of cohesion, as positive parent relationships provide opportunities for children to participate meaningfully within the family (Sander, 2002; Black and Schutte, 2006).

### 5.3.1.1. The role of belonging in attachment

As seen in the literature, belonging plays an important role in human relationships and development. Individuals who belong to a family system experience feelings of being valued, being needed and being significant. Children flourish when they experience affection and understanding on a deep emotional level. The need to belong to a family serves as a secure base from where independence develops (Slaten and Baskin, 2013). Research indicates that the quality of children's relationships with their families influences their relationships outside the family; thus adolescents who feel important, significant and loved in their families develop a sense of security which equips them better for adulthood (Crespo, Jose, Kielpikowski and Pryor, 2013; Tamm, Kasearu and Tulviste, 2014). The relational experiences within the family guide adolescents to interpret the quality of their relationships beyond the family (Edmond, Granberg, Simons and Lei, 2014).

Contrary to expectation, Belonging did not emerge as a distinct measurable construct. This result is inconsistent with previous studies which show the relationship between a sense of connection and a sense of belonging to family (Jose, Ryan and Pryor, 2015). The fact that

Belonging did not emerge as a factor can be explained from a development perspective as adolescence is a period of development during which young people underestimate their sense of belonging as they seek autonomy. Adolescents seek to develop their own identity and 'belonging' to a family may not necessarily be a priority. They move away from the family into a larger world as they spend more time with peers and close relationship partners, and thus they experience a stronger sense of belonging with their peers than during earlier developmental stages (Bandura, Caprara, Barbaranelli, Regxalia and Scabini, 2011). During this time adolescents seek independence to establish their own identity and relate to people they can identify with. In addition, items in the FAS focused mainly on the nature of the relationship (e.g. communication, trust, expressions of affection). The FAS measured adolescents' satisfaction with their familial relationships through items such as 'feel valued', 'feel included' and specific behaviours that had an influence on them, including 'My family listens to me', 'My family holds me dear'. In this regard Belonging as a construct was perhaps not properly operationalised, which influenced measurement.

One could also argue that Belonging might be interconnected with the other dimensions, thus indicating that some dimensions are easier to measure. This argument is supported when considering that on the Principal Component Analysis the items on Belonging were grouped with constructs such as Love, Significance and Knowledge. Neufeld described Belonging as a basic human need that includes affection, companionship, security, love and connection (Neufeld and Maté, 2006). The findings of the present study indicated that although a sense of belonging could not be measured, adolescents share a connection with their families that guide them to deal with challenges while maturing (Allen and Bowles, 2012; Holt-Lunstad, Smith and Layton, 2010). In the present study participants reported high family cohesion, indicating emotional support, close relationships, belonging and the ability to face challenges (Arbona et al., 2003; Bell et al., 1996; Bradford et al., 1994; Lucia et al., 2006; Nickerson et al., 2004). Family cohesion is perceived as a possible suggested predictor of subjective well-being in the family (McCarthy et al., 2004; Zabriskie et al., 2001), thus supporting the argument that Belonging might be interconnected with other dimensions, as well as that some dimensions are perhaps easier to measure than others.

Furthermore, cultural factors played a role in the measurement of belonging. Participants in the present study consisted mostly of white adolescents from a middle class socio-economic background. Their individualistic culture could have influenced their understanding and interpretation of the dimension Belonging. In the present study I expected attachment to be a

universal phenomenon that reaches beyond race and culture. However, the dimension Belonging should also be examined from a cultural perspective as the value attached to a sense of belonging may be guided by cultural norms, values and practices (Ruiz-Casares et al., 2013). Individuals in a collectivist cultural context emphasise being connected with the environment in order to have social connection across generations, spirituality and cultural heritage. Individualistic societies instead focus more on self-esteem and individual achievements (Ruiz-Casares et al., 2013). Some researchers believe that culture influences the way we see ourselves and that this amounts to cultural differences affecting how we experience emotions (Liden, Wayne, Liao and Meuser, 2014). Leu, Wang and Koo (2011) indicated that positive emotions and feelings imply well-being in a Western culture. However, in an Asian culture positive emotions are not as positive because of cultural differences in the meaning assigned to them. Furthermore Anhallen, Suyemoto and Carter (2006) interviewed multiracial Japanese European Americans about their ethnic identity in an attempt to understand what Belonging meant to them. They emphasised choice and power in determining an individual sense of belonging. They mentioned that an individual should have a choice as to whom and what they belong and power as to whether they want to belong. A sense of belonging is thus a subjective feeling of value and respect derived from a mutual relationship consisting of shared experiences and beliefs (Mahar, Cobigo and Stuart, 2012).

### 5.3.2.     Relationship between relational requirements and well-being

The findings of the present study generally indicate positive correlations of attachment relationships which possibly suggest the predictive value to adolescent well-being (Neufeld and Maté, 2006). Neufeld states that attachment to family influences relationships beyond family, thus promoting high levels of life satisfaction and positive mood. The findings of the present study confirm that the six indicators of attachment as defined by Neufeld can be measured, but only two indicators can possible suggest the predictive value of well-being.

Supplementary authors consistently confirm Neufeld's theory of the importance of the quality of family relationships by stating that family influences the development of children's social interaction and interpersonal skills; these authors also indicate the importance of secure relationships (Choi, 2012; Mikulincer and Shaver, 2012). Neufeld (2006) states that the relationship with our children is sacred and if we do not hold on to our children, we can lose them. He mentions that the attachment relationship should be our priority as children seek Love and Belonging. Neufeld (2006) stresses the importance of family ties and the crucial role families play in developing a child's clear sense of direction and a positive sense of self. He also

stresses that attachment is not a behaviour to be learned, but a connection that is required and that the relationship is more important than the behaviour. Neufeld mentions that if we do not value our ties with our children, the connections will be lost and children will seek closeness and bonds with peers (Neufeld and Maté, 2006). This will result in a peer-orientated culture in which children influence each other's development. Therefore parents should take charge, ground their parenting in a solid relationship and reclaim their children. When children experience intimacy they are easier to tend to and to teach (Neufeld and Maté, 2006).

It is suggested therefore that the possible predictors Love and Knowledge are perhaps more important than the other dimensions in 'reclaiming' one's children or in preventing peer-orientation. Adolescents who experience feelings of being loved and known on a deep emotional level are connected with their family and experience a closeness and an acceptance that exceed peer relationships. Gorrese and Ruggieri (2012) indicated in a study that family bonds cannot be replaced by peer relationships. These researchers found that adolescents with strong relationships with their parents are better equipped to establish strong relationships with friends who will result in healthy social bonds outside the family (Gorrese and Ruggieri, 2012). Family attachment reduces peer-orientated behaviour that could manifest in violent bullying, peer murders and childhood suicides as family cohesion serves as a buffer against depression, suicide, violence, substance abuse and mental health problems (Baptist et al., 2012; Levendosky, Lannert and Yalch, 2012; Marganska et al., 2013; Scheungel, De Schipper, Sterkenburg and Kef, 2012). Based on Neufeld's model, family attachment relationships are necessary to guide our children to become independent and mature individuals. Secure attachment relationships promote a deep connection through which individuals experience the acceptance and love that result in well-being. The high level of perceived well-being by participants in the present study is also consistent with studies done in a general educational domain (Qin, Wan, Qu and Chen, 2015; Resch, Benz and Elliot, 2012; Wolke and Skew, 2012) and a sports educational domain (Karr, Davidson, Bryant, Balague and Bohnert, 2013; Newhouse-Bailey, Dixon and Warner, 2015) – a fact which supports the argument that secure attachment relationships and the experience of a deep emotional connection influence various spheres of adolescent development.

### 5.3.3.       Family attachment relationships predicting subjective well-being

### 5.3.3.1.       Love and Knowledge predicting subjective well-being

Love and Knowledge displayed significant correlational patterns, with well-being as originally expected. It was therefore interesting to note that Feeling Loved was the dimension most often chosen by the panel of experts during the piloting phase. In the general psychology domain (Stroebe and Archer, 2013) and sports domain (Felton and Jowett, 2014) attachment relationships are reported to influence subjective well-being and life satisfaction. I mentioned in Chapter 2, Section 2.6.4, the developmental changes of adolescents on social, cognitive and emotional levels. Although the quality of family relationships changes with adolescence, the relationship between family members remains of the utmost importance. One could argue that adolescents are able to determine whether their attachment relationship needs are being met based on the quality of communication and the perceived emotional bond (Allen, 2008; Dubois-Comtois et al., 2013). Research indicates that insecure attachment relationships in dysfunctional families increase adolescent suicidal tendencies, substance abuse and mental health problems (Baptist et al. 2012; Diamond, Diamond and Diamond, 2012; Lasgaard, Goossens and Elklit, 2011). Therefore, feeling loved and being understood are characterised by trust, commitment, satisfaction and interdependence, consequently highlighting the importance of secure attachment relationships (Dubois-Comtois et al., 2013). Attachment relationships in which children experience feelings of support, care and closeness (Love), as well as being understood and accepted (Knowledge) contribute to and ensure the development of adolescents who have a positive sense of life satisfaction. Perceived support from families influences individual functioning and thus increases subjective well-being (Mikulincer and Shaver, 2012).

Grade 11 and 12 participants in the present study are on the verge of adulthood where they have to make important choices that will influence their future. To be able to make these choices parental attachment is important, because adolescents are confronting transitions and new situations and need support from their parents (Choi, Hutchison, Lemberger and Pope, 2012). Research supports this argument as the relationship between career development and parental attachment shows that (a) parents invest in their children's career choices and (b) children request help from their parents in terms of career information, support and decision-making (Choi et al., 2012; Kim and Lee, 2007). It is therefore possible to argue that these contextual influences increase the likelihood of experiencing subjective well-being as

adolescents are able to integrate the value of secure attachment relationships into other spheres of their lives.

From a social standpoint families are seen as a fundamental cornerstone of society (Leidy, Guerra and Toro, 2012) and consequently the emotional closeness with family members influences an individual's well-being and social adjustment. Many families in the urban South African context are confronted with various challenges and as a result experience emotional detachment and lack of communication (Crespo et al., 2011; Leidy, Guerra and Toto, 2012;). In the present study many participants indicated that they have a close relationship with their family members, thus feeling loved and known support the fact that healthy family functioning act as a protective factor to support families when they experience stress and adversity. Theoretically, it would make sense that Love and Knowledge would be related as there is no closeness that can exceed the sense of being known and feeling loved. Although feeling loved and being known are related, they are seemingly unique possible predictors of attachment relationships and contribute uniquely to the development of the attachment model. Further support for this argument is the finding from a recent investigation by Theron and Theron (2011) in their 'Retrospective Reflections Study' that successful, black university students reported that they made meaning of poverty and its associated hardships through their attachment relationships with grandparents, older siblings, ancestors and/or God. Many of the participants reported that their belonging to an extended family network encouraged relationships. Adolescents are at risk for feelings of loneliness, anxiety and stress when they experience a disconnection with their family (Duchesne and Ratelle, 2014; Sharma, 2013). A safe family environment mobilises family resources and increases positive psychological functioning which includes a positive self-esteem, positive mood and life satisfaction. In addition, research indicates that relationships between children and parents can be strengthened by utilising social networking. When adolescents include parents in their social network, feelings of connection and lower levels of aggression are reported (Coyne, Padilla-Walker, Day, Harper, and Stockdale, 2013), thus improving the parent-child relationship which results in positive attachment relationships.

### 5.3.3.2.      Proximity not predicting well-being

It was expected that Proximity, as described by Neufeld (see Section 1.12.1.1 and Section 2.5.2.1), would not have significantly predict well-being in the present study. This result is consistent with research as one may argue that the attachment relationships in the present study focus on communication and interaction on an emotional level between family members

(Dubois-Comtois et al., 2013). A noticeable aspect of adolescent attachment is the increasing need for distance from the parents as physical proximity, which ensures protection and comfort, is no longer necessary (Dubois-Comtois et al., 2013). Adolescents with secure attachment relationships are aware of their parents' availability and accessibility while enjoying greater physical distance (Dubois-Comtois et al., 2013), especially when the context is familiar, for example in the family home. Most participants in the present study indicated that their parents are married and therefore it is more likely that these youngsters will increase distance as they experience secure relationships with family members (Dubois-Comtois et al., 2013).

### 5.3.3.3. Similarity not predicting well-being

Contrary to Neufeld's theory about the importance of Similarity to attachment, my findings indicated that although Similarity was positively associated with well-being, it was not a possible significant predictor of well-being. Several interpretations may be possible. First, one must keep in mind that adolescence is a period of development during which young people seek autonomy and explore and establish an identity (Erikson, 1968, 1970; Meeus, 2011). Secondly, Similarity may be influenced by measurement factors. I measured similarity on a level of 'identification' with parents. Thus for adolescents seeking to develop their identity, similarity with their parents' values may not necessarily be a priority. Adolescents move away from the family into a larger world as they spend more time with peers and close relationship partners and thus the role of the parents as a secure base becomes less critical than in earlier periods (Bandura et al., 2011). During this time adolescents seek independence to establish their own identity and relate to people they can identify with. It can be considered as a quest for sameness with peers in order to gain acceptance by friends (Erikson, 1970; Meeus et al., 2002). Adolescents therefore re-evaluate their secure base in this revised social context of greater autonomy to establish their own independence (Feenstra, Hutsebaut, Verheul and van Limbeek, 2014).

### 5.3.3.4. Gender and marital status not predicting well-being

When considering the demographic information in the present study such as gender and parents' marital status, no significant differences were observed. Male and female participants reported no difference in their experience of well-being in terms of their family relationships. The Trait Well-Being Inventory assessed well-being in terms of positive mood levels and general life satisfaction (Dalbert, 1992). It can be concluded that the lack of observed gender differences in terms of mood level and general life satisfaction for both genders indicates that male and female adolescents experience well-being in a similar way. The findings are as expected and as

supported by the literature, in terms of attachment being associated with positivity, support and optimistic relationship outcomes (Chopik, Edelstein and Fraley, 2013; Warber and Emmers-Sommer, 2012). In addition, positive mood level is correlated with life satisfaction, as life satisfaction is influenced by affective states (Pavot et al., 2008). Positive mood level is furthermore a determinant of well-being, in terms of the emotional component of positive versus negative affect (Larsen, 2009). In this regard attachment within a family relationship can be associated with higher levels of positive mood and life satisfaction, and thus promotes greater well-being. The findings of the present study suggests that adolescents who reported positive attachment relationships with their family unit experienced higher levels of positive mood and trait well-being.

However, empirical gender research shows that reliable differences exist with regard to how males and females report well-being (Fortin, Helliwell and Wang, 2015; Jurma, 2015), while other literature has indicated ambiguous findings with regard to gender differences in terms of life satisfaction, positive mood and trait well-being (Glaesmer, Grande, Braehler and Roth, 2011; Veenhoven, 2012). There are also studies that support the present study's findings with regard to gender (Chopik et al., 2013; Warber and Emmers-Sommer, 2012). Findings from the present investigation are therefore consistent with prior research highlighting the similarity between genders with regard to well-being. It is important to note that a limitation on the interpretation of gender differences with regard to subjective well-being, in the present study, is that male and female participants were unequally distributed in the groups, with the majority of participants being female (Grissom and Kim, 2012). Therefore the interpretation is based on the sample as presented in the present study.

The impact of parental marital status on adolescents should be taken into consideration as the marital dyad in general cannot be understood in isolation since the family system has an impact on the marital dyad and vice versa (Jager, Yuen, Bornstein, Putnick and Hendricks, 2014). The functioning and status of the marital dyad will also impact on the children within the family system (Jager et al., 2014). Family functioning and the interdependencies of family members therefore influence the well-being of individual members (Jager et al., 2014; Stuart, and Jose, 2012) with family conflict or death having an effect on individuals (Fosco and Grych, 2012). In accordance with system theory (Rothbaum, Rosen, Ujlie and Uchida, 2002), it can be assumed that conflict, death or any change in the marital dyad will have an impact on the family system as a whole, and on the individual members. Seligman (1990) reports that individuals are influenced by the family environment, which includes the marital dyad, and thus it, can be

assumed that individuals' well-being is influenced by the functioning and status of the marital dyad as positive mood levels and life satisfaction levels influence individuals' perceptions of well-being (Underwood et al., 1980). Well-being is reported to be higher among individuals whose parents have never been divorced because divorce has been found to have a significantly negative effect on well-being (Jurma, 2015). The correlation between well-being and marital status has been reported to be similar across a variety of cultures worldwide, with married people being reported to experience more positive emotions and fewer negative emotions (Diener, Gohm, Suh and Oishi, 2000; Fortin et al., 2015). In the present study the marital status of parents displayed no significant relevance to well-being. However, most participants reported that their parents are married, which could result in higher reporting of positive mood levels and life satisfaction. In the present study adolescents from intact, never divorced, families reported higher levels of positive mood than those whose parents were divorced. It should be taken into consideration that positive mood level has been identified as a correlate of life satisfaction and a determinant of trait well-being, thus an additional determinant of well-being (Bjarnason et al., 2012; Dalbert, 1992).

Attachment relationships reported by adolescents with their families have an impact on the adolescent's life in terms of positive mood level, general life satisfaction and trait well-being. The significance of the findings can be understood in accordance with system theory as the family unit is an interconnected and interdependent system, constituted by interrelated and influential sub-systems such as the marital dyad (Jager et al., 2014). The family system can also be understood as a socialisation unit (Landau, 2007) in which attitudes, values and behaviours can be transmitted through generations (Olson, 2000). The structure, organisation and transactional patterns of the family are important factors in determining and shaping the behaviour of family members (Walsh, 2002, 2003) as the family system can be seen as a foundation for individuals from where they learn how to function and establish relationships with others in terms of attachment dynamics such as communication, respect and affection (Fortin et al., 2015; Walsh, 2003).

## 5.4.    CONTRIBUTION OF THE PRESENT STUDY

### 5.4.1.    Theoretical contribution

The results from the present study suggest that Neufeld's six indicators of attachment can be measured reliably, thus expanding the body of literature on attachment. These indicators appear to be theoretically sound as they reflect attachment relationships. Although there are limitations

to the scope of the present study, the results obtained expand our knowledge of family relationships. They have shed light on the role of parenting, which includes both parents as the role of fathers and also of siblings are explored in terms of family relationships. In South Africa family attachment is as important, if not more so, in families where there is an absence of primary caregivers, or in family structures that include extended family members. However, it should be noted that the present study targeted largely minority world contexts and although the indicators appear to be theoretically sound in this study, more research is needed against the South African backdrop. Follow-up studies that include a broader population that include families in distress are therefore needed.

Secure family attachment strengthens family functioning, thus promoting a sense of meaning and purpose of life that results in adolescent well-being. Family connectedness and emotional closeness (attachment) enable families to overcome adversities arising from defective family organisation and limited resources, and the strengthening of individual members' secure attachment results in families which provide security and protection – concepts central to attachment theory. Families are strengthened through love and the connection between members, resulting in subjective well-being. Open and honest communication within the family also strengthens attachment relationships which enables children to regulate and express their emotions effectively (Neufeld and Maté, 2006; Walsh, 2003).

The results of the present study revealed that attachment is significantly correlated with one's satisfaction with life and positive mood level. This supports the notion that family cohesion acts as a source of emotional support, hence emphasising its place in close relationships which are perceived as a possible predictor of subjective well-being (McCarthy et al., 2004; Qadeyklaey and Fard, 2014; Wei et al., 2011; Zabriskie et al., 2001). These findings highlight the fact that effective emotional relationships strengthen and shape the relational growth of families, which is important for subjective well-being. Therefore, the discovery of the relational requirements for secure attachment relationships provides support for Neufeld's argument that parents' love and support sow the seeds of attachment and enable families to overcome adversities (Neufeld and Maté, 2006; Walsh, 2003). The results of the present study furthermore suggest that the FAS supports the argument that secure family attachment relationships are needed which enhances adolescent well-being (Fonagy, 2001; La Guardia et al, 2000; Priddis and Howieson, 2012; Qadeyklaey and Fard, 2014; Wei et al., 2011) thus expanding the traditional view of attachment.

Although some researchers (Doherty et al., 1994; Moreira et al., 1998; Soares et al., 2001) support my assumption that people from different cultures attach in the same way, there is an

extensive body of research demonstrating that while attachment is present across cultures and contexts, the pathways to its manifestation and what it looks like do indeed differ across cultures and contexts (Arbona and Power, 2003; Ruiz-Casares et al., 2013), thus requiring future research. Traditionally, attachment was viewed within the dyadic relationship which in itself is a Western concept that does not leave room for the fact that attachment is not only to another person, but can also be to a group such as the family, or a community. The present study focuses on the relationships and attachment to a group and thus expands the Western concept of attachment in order to have greater relevance to more collective societies where ties to a particular group are viewed as important.

Adolescence is characterised as a period for the development of autonomy during which adolescents begin to explore and establish a sense of their own identity (Erikson, 1968; Ruiz-Casares et al., 2013). Most studies on attachment focus mainly on infancy and early childhood and less is known about attachment relationships during adolescence (Ainsworth, 1989; Buist et al., 2004). The results of the present study confirm that adolescents' need for physical closeness (proximity) decreases as they seek independence, but that support from the family equips them to deal with stressful situations and strengthens their self-efficacy (Everri, Fruggeri and Molinari, 2013). Although the present study does not provide final answers, it poses future research questions that should be investigated to expand and increase our understanding of attachment relationships and how they influence identity development and family functioning.

### 5.4.2. Methodological contribution

The results of the present study affirm the methodological utility of the newly created FAS to suggest a broader way of measuring attachment, thus extending attachment research beyond the measurement of infant or adult attachment relationships (Neufeld and Maté, 2006). The majority of studies to date dealt mostly with the infancy period (Carcamo, van Ilzendoorn, Vermeer and van der Veer, 2014; Cassibba, Castoro, Costantino and Sette, 2015; Umemura and Jacobitz, 2014) and in the adult context (Hadden, Smith and Webster, 2013; Reveley, 2015; Rosario, Reisner, Corliss, Wypij, Calzo and Austin, 2014). The present study supports researchers such as Dubois-Comtois et al. (2013) and Parra, Oliva and Sanchez-Queija (2015) whose work highlights that adolescents experience subjective well-being when they perceive family cohesion and emotional bonding, while younger children perceive attachment as a physical closeness and identify with the parent based on their developmental stages. Although younger participants might measure a stronger relationship with dimensions such as Proximity and Similarity, future studies are needed in this regard.

The findings of the present study suggested relational requirements that are associated with stronger attachment relationships, which strengthen families when they are faced with adversities. Although parents' perspective of attachment relationships was not investigated in the present study, research indicates that insecure attachment relationships can be associated with poor family relationships (Schleider, Chorpita and Weisz, 2014). The findings of the present study suggest that the quality of family relationships impacts on adolescents' well-being and ability to cope with problems, thus expanding the body of literature on attachment relationships (Steca, Bassi, Caprara and Delle Fave, 2011). In addition, the findings of the present study suggest that when adolescents experience emotionally close relationships with family members, measurements of life satisfaction indicate that this emotional closeness has a positive effect on their subjective well-being and ability to cope in stressful situations. Adolescents are indeed in a better position to experience positive adaptation and deal successfully with stressors and choices when they experience love and an emotional connection with their family (Cicognani, 2011).

The findings of the present study suggest that attachment relationships in a family entail more than just the dyadic relationship. I challenge the dyadic view of attachment and instead expand it to reflect a systemic conceptualisation of attachment in which family members are assumed to be attached to the family as a unit, based on how they experience the sum total of relationships in the family. Thus my examination of attachment is not directed at children's feelings of attachment to the parents only, but at all relationships in the family, including relationships with siblings. The findings of the present study contribute to the body of literature on attachment measuring in terms of showing evidence for the ability to measure subjective well-being. The FAS is highly correlated to the TWBI (Dalbert, 1992), thus providing validity evidence for the FAS. Being able to measure attachment relationships in terms of Neufeld's indicators provides a better understanding of adolescents' subjective well-being. The final FAS model indicated that a tentative well-being score can be computed in future if the Love and Knowledge scale scores are known to the researcher, thus expanding and challenging our knowledge with regard to measuring attachment relationships.

In his book '*Hold on to your kids. Why parents need to matter more than peers.* (Neufeld and Maté, 2006) Neufeld suggests that parents should reclaim their role as nurturers and mentors, and also presents suggestions on how parents can re-establish the relationships if they have been lost (Neufeld and Maté, 2006). Neufeld proposes that parents should get into the child's face or space. The greeting and sitting down for supper are the most common attachment

rituals. Providing something for the child to hold onto can result in an experience of emotional warmth, enjoyment and delight, which activates attachment. Adolescents move from dependence to independence and therefore parents have to invite dependence as it is the prerequisite for autonomy. To act as a child's compass point proposes that parents need to be a guide as children depend on adults (Neufeld and Maté, 2006). Complementary to Neufeld's suggestions, the present study contributes to and supports the importance of a systemic approach to adolescent well-being as family members live in relation to each other and thus influence each other. By recognising that family stability possibly predicts and influences the general well-being of adolescents, the findings of the present study can be interpreted in terms of a systemic approach as families are interconnected and members are interdependent (Proctor, Tsukayama, Wood, Maltby, Fox Eades and Linley, 2011).

### 5.4.3.        Practical contribution

South African families are confronted with many challenges and the findings of the present study establish a broader perspective on attachment as the study explored the role that family relationships play in subjective well-being. Traditional attachment researchers focused on attachment as a behavioural system that activates when a child is in distress and needs protection and comfort from the primary caregiver (Bowlby, 1980). The findings of the present study indicated that knowledge regarding the quality of the attachment relationships is hugely beneficial, as Bronfenbrenner's (Krishnan, 2010) ecological theory points out the importance of microsystems that include relationships with family members. Bronfenbrenner's ecological system theory (1979) highlights the fact that family is the first unit to which children belong, followed by school and community Walsh's (2003).

Neufeld's (Neufeld and Maté, 2006) attachment theory adds to our knowledge of family relationships as family cohesion acts as a source of emotional support, hence emphasising its place in close relationships. In the present study the quality of the family environment is likely to influence adolescents' well-being. The family environment is known to have a significant impact on relationships, yet there is limited research exploring the extent of attachment to the family unit. The findings of the present study therefore provide support for the importance of family relationships. Family bonds influence children and therefore determine their emotional and subjective well-being (Campa, Hazan and Wolfe, 2009; Neufeld and Maté, 2006).

The knowledge about attachment relationships could be included in the training of Educational Psychologists as children's relationships with their parents are crucial to their development and

sense of well-being (Abubakar, Alonso-Arbiol, van de Vijver, Murugami, Mazrui and Arasa, 2013). Psychological assessment and intervention strategies should consider family functioning, in particular with regard to subjective well-being (Walsh, 2003). Consequently, the FAS could be utilised by health professionals such as social workers and counsellors to better understand adolescents' attachment relationships. The present study indicated that individuals with secure family attachment relationships experience family cohesion and are therefore less at risk with regard to violence, depression and mental disorders. Subjective well-being therefore corresponds to secure attachment relationships and when adolescents experience life satisfaction, healthier relationships are established which lead to healthier families and communities. Although adolescence can be viewed as a time of change and identity exploration (Stuart and Jose, 2012), the results of the present study contribute to a better understanding of adolescence and the value that adolescents place on feeling loved and being known in their family.

## 5.5. LIMITATIONS OF THE PRESENT STUDY

When evaluating the present study, one has to concede that there are several limitations that are evident in the findings. The sample in the present study, although large enough to allow for valid statistical inferences, did not represent the broader South African population as it only included Grade 11 and 12 students, thus restricting the findings of the study to the sample. Given the complexity of South African society, a particular population of youth within South African society should have been focused on as it would have been more appropriate and would have added greater direction to the discussion of families in an urban South African context, as well as having greater relevance to Neufeld's family attachment theory.

Attachment is assumed to be a basic human requirement that stretches beyond cultures. However, the majority of attachment studies have been conducted in a Western or individualistic environment, thus excluding collectivistic cultures. The present study focused on individualistic cultures which highlight autonomy. The majority of the sample group was white (56.3%) and is thus not an accurate representative sample of urban South African learners. South Africa has many collectivistic cultures in which ethnic identity is valued; therefore cultural diversity could be further investigated to determine how different cultures contribute to the cohesion of families (Keller, 2013).

The marital status of the participants' parents indicated that 70.7% of the parents were married. Only 13.9% of the participants stated that their parents are divorced, thus indicating unequal

subgroups which restrict the comparability of these groups. In terms of marital status, research indicates that children raised in intact married families are more likely to have secure attachment relationships (Amato and Sobolewski, 2001; Moon, 2011; Moore, Kinghorn and Bandy, 2011) and therefore the study's findings are restricted to the sample.

It should also be mentioned that although the participants attended public schools, it can be assumed that the average child in these schools is from an average social structure which is not fully representative of the broader South African public. Research indicates that low-income families are exposed to stressors that make them vulnerable to family chaos and possible poor decision making (Dyk, 2004; Lucia and Breslau, 2006), which influence the quality and experience of family relationships. In addition, the question in the biographical section of the questionnaire which enquired about the marital status of participants' parents or caregivers might have been limiting as only four options were available. Although parents' marital status did not show significance concerning the attachment relationships, this question could have been refined in more detail.

With regard to the quantitative pilot sample, a sub-sample of the larger group could have completed the measure a second time. This would have allowed for test-retest analysis. Doubling the larger main study sample would have allowed the total study sample to be randomly split in half to allow both PCA and CFA to be conducted, which would have added value to instrument development. Additional analysis in the quantitative phase could be done by using multivariate analysis of variance (MANOVA). This would allow for an exploration of the ways in which the five factors vary by gender and culture (generalised through racial markers); naturally, the problematics and cautions of this would need to be discussed, as would the impact of socio-economic factors on cultural adherence. In the qualitative sample an approach that integrated purposive sampling of at least four youths could have allowed for the inclusion of dimensionality (such as having high levels of well-being or family cohesion and low levels of well-being or family cohesion), as well as ensuring a gender balance. This would have provided a more robust qualitative data set from which to answer the question 'What are the relational requirements of attachment in adolescent families?' and would have allowed items to be developed for inclusion in the FAS. In the qualitative sample for both the pilot and the main study, random sampling of schools could also have been purposively included to account for the pre-identified population. In addition, multi-stage random sampling in the qualitative phase could also have been purposive in nature. The lack of secure attachment relationships and support limits children's ability to cope with adversities (Mathews and Benvenuti, 2014; Yoshikawa, Aber

and Beardslee, 2012). Parents who are at risk affect children's relationships with self and others (Moss, Lynch, Hardie and Baron, 2002). Therefore further research can benefit the literature of attachment and refine the factors that influence family relationships and cohesion.

In addition, the present study did not control for adversity or risks factors such as the socio-economic status of families, domestic violence and the psychological problems of parents or HIV/AIDS status. Although no data exist with regard to physical abuse in South Africa, a population-based study in the Eastern Cape (Jewkes, Dunkle, Nduna, Jama and Puren, 2010) reported high levels of physical abuse and physical punishment by caregivers. These issues impact on family functioning and influence interpersonal relationships, as well as personal development. In studies the risk aspect has been defined in diverse ways while the criteria by which the quality of adaptation is measured as 'good 'or 'bad' can be viewed as problematic and inconclusive as no one set of risk factors can give the variability in the responses found among individuals at risk (Dirks, Persram, Recchia and Howe, 2015; Masten, 2001; Redman-MacLaren, Klieve, Mccalman, Russo, Rutherford, Wenitong and Bainbridge, 2017). Future longitudinal studies could advance these ideas.

## 5.6. RECOMMENDATIONS FOR FUTURE RESEARCH

The aim of my study was to establish whether the six indicators of attachment as defined by Neufeld can be measured and whether they are all equally important and thus can possibly predict well-being. The possible prediction is based on the fact that the indicators are theoretically assumed to be reflective of attachment relationships. The results provided first evidence that this goal was achieved as the six dimensions could be measured. However, only two dimensions, namely Love and Knowledge, possibly predicted well-being. Identifying the relational requirements that are associated with stronger attachment relationships provides a better understanding of what the relational requirements for healthy family relationships are. The following are suggested with regard to future research:

1. Sampling procedures should include measures to ensure that the issues of a varied population are adequately addressed in terms of an equal distribution.
2. Future studies could be administered in different settings that involve students from different spheres of life. Therefore the relationship between attachments beyond Western settings needs further investigation to clarify aspects of adolescent attachment relationships.

3.  A replication of the study with both a younger (primary school learners) and an older (university students) sample group will establish additional experiences of the learners/students regarding their attachment relationships with their families and therefore corroborate Neufeld's attachment theory.

4.  Future studies could include families that experience adversity and stress.

5.  A longitudinal design could be used to collect data to understand how family attachment can influence the quality of family relationships. It would appear that future research could be done to investigate the factors that influence the significant correlations of the present study.

## 5.7.      CONCLUSION

In Chapter 5 the findings of the present study were discussed against the background of the attachment literature reviewed in earlier chapters. First, the findings were discussed in terms of the development of the FAS, which included correlational and predictive analysis. Secondly, the relational requirements of attachment in a family context and the role of the measured dimensions were discussed. Thirdly, the study concluded that the measurements of Love and Knowledge represent indicators of family attachment, and this also increases our knowledge about family relationships as family cohesion acts as a source of emotional support, hence emphasising its place in close relationships. The present study expanded on the existing body of literature by providing a broader perspective on attachment by offering a scale that measures adolescents' satisfaction with their familial relationships.

Family attachment promotes healthy family functioning and acts as a source of adolescent well-being. The quality of the family environment is likely to determine the way adolescents will experience greater family cohesion. Healthy attachments in families are a feature of healthy family functioning in times of stress and adversity.

Dear parents

**RE: PERMISSION OF PUPILS TO PARTICIPATE IN A RESEARCH PROJECT**

I would like to invite your child to participate in a research study about attachment requirements in a family unit. I am conducting research to understand the quality of family relationships and how children perceive their attachment with their family members. This study is part of the requirements for a PhD (Educational Psychology) degree and I am interested in understanding how family functioning can impact on the development and functioning of children. The results of this study will be presented for examination in a dissertation and presented for publication in an academic journal.

Although I will ask questions about gender, age and other personal information, it is important for you as a parent to note that this study is completely anonymous and with the information gathered your child will not be able to be identified by anyone. You do not have to record your name anywhere on the questionnaire and your identity will remain anonymous to me the researcher, or anyone else. I will analyse the data statistically and therefore can assure you of complete anonymity.

Grade 11 and 12 pupils are selected, but your child's participation remains voluntary, meaning you do not have to participate if you do not want to. If you decide that your child will not participate, simply submit an empty questionnaire so it can be used at another time for another participant, but I hope that you will assist me with this study. This study was reviewed and has received ethical clearance from the Faculty of Education Ethics Committee and if you have any questions about the study you are welcome to contact the Ethics Committee (ethics.education@up.ac.za).

Yours sincerely

| | |
|---|---|
| **Prof Dr Salomé Human  Vogel** | **Monica van Niekerk** |
| **RESEARCH LEADER** | **RESEARCHER** |

Please complete the reply slip and return to school.

I _____ agree/not agree that my child _____

may participate in the research project as presented. I understand that participation is voluntary and that participation can be terminated at any time.

_____                                    _____

**Parent Signature**                                                                **Date**

**GAUTENG PROVINCE**
Department: Education
REPUBLIC OF SOUTH AFRICA

For administrative use:
Reference no. D2015/036

## GDE RESEARCH APPROVAL LETTER

| | |
|---|---|
| Date: | 29 April 2014 |
| Validity of Research Approval: | 29 April 2014 to 03 October 2014 |
| Name of Researcher: | Van Nierkerk M.D |
| Address of Researcher: | 44 Wenning Street |
| | GroenKloof |
| | 0181 |
| Telephone Number: | 012 460 8846/ 082 452 4559 |
| Email address: | monicaphoto@netactive.co.za |
| Research Topic: | Conceptualising and measuring relationship requirements of attachment as a basis of meaningful relationships in the family context. |
| Number and type of schools: | Two Secondary Schools |
| District/s/HO | Gauteng East |

## Re: Approval in Respect of Request to Conduct Research

This letter serves to indicate that approval is hereby granted to the above-mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the school/s and/or offices involved to conduct the research. A separate copy of this letter must be presented to both the School (both Principal and SGB) and the District/Head Office Senior Manager confirming that permission has been granted for the research to be conducted.

The following conditions apply to GDE research. The researcher may proceed with the above study subject to the conditions listed below being met. Approval may be withdrawn should any of the conditions listed below be flouted:

1

*Making education a societal priority*

**Office of the Director: Knowledge Management and Research**
9th Floor, 111 Commissioner Street, Johannesburg, 2001
P.O. Box 7710, Johannesburg, 2000 Tel: (011) 355 0506
Email: David.Makhado@gauteng.gov.za
Website: www.education.gpg.gov.za

1. The District/Head Office Senior Manager/s concerned must be presented with a copy of this letter that would indicate that the said researcher/s has/have been granted permission from the Gauteng Department of Education to conduct the research study.
2. The District/Head Office Senior Manager/s must be approached separately, and in writing, for permission to involve District/Head Office Officials in the project.
3. A copy of this letter must be forwarded to the school principal and the chairperson of the School Governing Body (SGB) that would indicate that the researcher/s have been granted permission from the Gauteng Department of Education to conduct the research study.
4. A letter / document that outlines the purpose of the research and the anticipated outcomes of such research must be made available to the principals, SGBs and District/Head Office Senior Managers of the schools and districts/offices concerned, respectively.
5. The Researcher will make every effort obtain the goodwill and co-operation of all the GDE officials, principals, and chairpersons of the SGBs, teachers and learners involved. Persons who offer their co-operation will not receive additional remuneration from the Department while those that opt not to participate will not be penalised in any way.
6. Research may only be conducted after school hours so that the normal school programme is not interrupted. The Principal (if at a school) and/or Director (if at a district/head office) must be consulted about an appropriate time when the researcher/s may carry out their research at the sites that they manage.
7. Research may only commence from the second week of February and must be concluded before the beginning of the last quarter of the academic year. If incomplete, an amended Research Approval letter may be requested to conduct research in the following year.
8. Items 6 and 7 will not apply to any research effort being undertaken on behalf of the GDE. Such research will have been commissioned and be paid for by the Gauteng Department of Education.
9. It is the researcher's responsibility to obtain written parental consent of all learners that are expected to participate in the study.
10. The researcher is responsible for supplying and utilising his/her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institutions and/or the offices visited for supplying such resources.
11. The names of the GDE officials, schools, principals, parents, teachers and learners that participate in the study may not appear in the research report without the written consent of each of these individuals and/or organisations.
12. On completion of the study the researcher/s must supply the Director: Knowledge Management & Research with one Hard Cover bound and an electronic copy of the research.
13. The researcher may be expected to provide short presentations on the purpose, findings and recommendations of his/her research to both GDE officials and the schools concerned.
14. Should the researcher have been involved with research at a school and/or a district/head office level, the Director concerned must also be supplied with a brief summary of the purpose, findings and recommendations of the research study.

The Gauteng Department of Education wishes you well in this important undertaking and looks forward to examining the findings of your research study.

Kind regards

p.p.

Dr David Makhado
Director: Education Research and Knowledge Management

DATE: 30/04/14

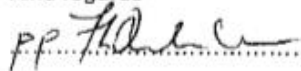**Making education a societal priority**

**Office of the Director: Knowledge Management and Research**
9th Floor, 111 Commissioner Street, Johannesburg, 2001
P.O. Box 7710, Johannesburg, 2000 Tel: (011) 355 0506
Email: David.Makhado@gauteng.gov.za
Website: www.education.gpg.gov.za

**INFORMED CONCENT FOR PARTICIPANTS**

I, _____ voluntarily consent to participate in Monica van Niekerk's research study regarding  understanding how family functioning can impact on the development and functioning of children, the quality of family relationships and how children perceive their attachment with their family members.

**I understand and agree to the following terms:**

The information gained from the research will be treated as highly confidential and will be released for the completion of a PhD research qualification. The project is under the guidance of a senior supervisor who is also a co-researcher in this project.

Interviews may be audio-taped. All tapes, records and materials concerning clients are confidential and cannot be released to, or shared with any other agency or individual without my, the client's specific written permission.

The information obtained in interviews and questionnaires may be used for research purposes, presented anonymously at professional meetings, and/or published in journals or textbooks. At no time will my own or my family members' names or any identifying information whatsoever, be used.

I understand that the researcher, Monica van Niekerk, obtained written approval from the University of Pretoria for this research. She has clarified the nature of the research to me. I understand that I am free to participate, or decline to participate or to withdraw from the research at any given time.


_____          _____
**Participant**                                                    **Researcher**


_____          _____
**Date**                                                              **Date**

**Faculty of Education**
**Fakulteit Opvoedkunde**
**Lefapha la Thuto**

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

RESEARCH ETHICS COMMITTEE

| | |
|---|---|
| **CLEARANCE CERTIFICATE** | **CLEARANCE NUMBER :**      UP 10/07/01 |
| **DEGREE AND PROJECT** | PhD |
| | Relational requirements of attachment as a basis of meaningful relationships in the family context |
| **INVESTIGATOR(S)** | Monica Deirdré van Niekerk |
| **DEPARTMENT** | Educational Psychology |
| **DATE PROTOCOL APPROVED** | 20 March 2013 |
| **DATE CLEARANCE ISSUED** | 14 October 2015 |

Please note:

*For Masters applications, ethical clearance is valid for 2 years*

*For PhD applications, ethical clearance is valid for 3 years.*

| | |
|---|---|
| **CHAIRPERSON OF ETHICS COMMITTEE** | Prof Liesel Ebersöhn |
| **DATE** | 14 October 2015 |
| CC | Jeannie Beukes |
| | Liesel Ebersöhn |
| | Prof. S Human-Vogel |

This ethical clearance certificate is issued subject to the condition that the approved protocol was implemented. The Ethics Committee of the Faculty of Education does not accept any liability for research misconduct, of whatsoever nature, committed by the researcher(s) in the implementation of the approved protocol.

Please quote the clearance number in all enquiries.

| DEMOGRAPHIC INFORMATION | For office use only |
|---|---|
| 1. Student number: | V1 |
| 2. Gender: Male ☐ Female ☐ | V2 |
| 3. Age in years: | V3 |
| 4. In which grade are you this year? Grade11 ☐ Grade 12 ☐ | V4 |
| 5. To which population group do you belong? White ☐ Asian ☐ Other ☐ Black ☐ Indian ☐ If you choose other, please write down your population group. | V5 |
| 6. What is the marital status of your parents? Are they: Parents are married ☐ Parents are divorced ☐ Single mother ☐ Single father ☐ | V6 |

**QUESTIONNAIRE**

**This questionnaire contains a number of statements about families. Read each statement carefully and decide how well it describes your own family. Be honest and choose only one answer.**

| | NEVER | SOMETIMES | OFTEN | ALWAYS | For office use only |
|---|---|---|---|---|---|
| 1. We do a lot of things together. | 1 | 2 | 3 | 4 | **V7** |
| 2. We spend time together as a family. | 1 | 2 | 3 | 4 | **V8** |
| 3. I enjoy holidays with my family. | 1 | 2 | 3 | 4 | **V9** |
| 4. I participate in family activities. | 1 | 2 | 3 | 4 | **V10** |
| 5. I like to be close to my family. | 1 | 2 | 3 | 4 | **V11** |
| 6. We usually eat together as a family. | 1 | 2 | 3 | 4 | **V12** |
| 7. My parents will share their emotions with us. | 1 | 2 | 3 | 4 | **V13** |
| 8. My family comforts me when I am in distress. | 1 | 2 | 3 | 4 | **V14** |
| 9. I spend time with my family on a daily basis. | 1 | 2 | 3 | 4 | **V15** |
| 10. I enjoy hugs and kisses from my family. | 1 | 2 | 3 | 4 | **V16** |
| 11. I feel emotionally close to my parents/siblings. | 1 | 2 | 3 | 4 | **V17** |
| 12. I feel different from my family. | 1 | 2 | 3 | 4 | **V18** |
| 13. I feel like I have a lot in common with my siblings. | 1 | 2 | 3 | 4 | **V19** |
| 14. In my family we like many of the same things. | 1 | 2 | 3 | 4 | **V20** |
| 15. I share enjoyment of the same things with my family. | 1 | 2 | 3 | 4 | **V21** |

| | | NEVER | SOMETIMES | OFTEN | ALWAYS | For office use only |
|---|---|---|---|---|---|---|
| 16. | We have things in common. | 1 | 2 | 3 | 4 | V22 |
| 17. | We share the same interests. | 1 | 2 | 3 | 4 | V23 |
| 18. | I am similar to my family. | 1 | 2 | 3 | 4 | V24 |
| 19. | My family resembles my interests. | 1 | 2 | 3 | 4 | V25 |
| 20. | I enjoy sharing with my family. | 1 | 2 | 3 | 4 | V26 |
| 21. | I experience closeness from my family. | 1 | 2 | 3 | 4 | V27 |
| 22. | I feel my family appreciates me. | 1 | 2 | 3 | 4 | V28 |
| 23. | My family approves my decisions. | 1 | 2 | 3 | 4 | V29 |
| 24. | I feel valued in my family. | 1 | 2 | 3 | 4 | V30 |
| 25. | My opinion matters in my family. | 1 | 2 | 3 | 4 | V31 |
| 26. | I feel that I play an important role in the family. | 1 | 2 | 3 | 4 | V32 |
| 27. | I can influence my family members | 1 | 2 | 3 | 4 | V33 |
| 28. | My family members listen to me. | 1 | 2 | 3 | 4 | V34 |
| 29. | It is important for me to be praised by my family. | 1 | 2 | 3 | 4 | V35 |
| 30. | I feel I fit into my family. | 1 | 2 | 3 | 4 | V36 |
| 31. | I have a strong connection with my parents. | 1 | 2 | 3 | 4 | V37 |
| 32. | My family is available to me. | 1 | 2 | 3 | 4 | V38 |
| 33. | I can share with anybody in my family. | 1 | 2 | 3 | 4 | V39 |
| 34. | I spend time with my family daily. | 1 | 2 | 3 | 4 | V40 |

| | NEVER | SOMETIMES | OFTEN | ALWAYS | For office use only |
|---|---|---|---|---|---|
| 35. I understand why my family wants to protect me from bad things. | 1 | 2 | 3 | 4 | **V41** |
| 36. I am friends with my family. | 1 | 2 | 3 | 4 | **V42** |
| 37. I feel included in family decisions. | 1 | 2 | 3 | 4 | **V43** |
| 38. I feel loved by my family. | 1 | 2 | 3 | 4 | **V44** |
| 39. I feel like my family will always be there for me. | 1 | 2 | 3 | 4 | **V45** |
| 40. We show love towards each other. | 1 | 2 | 3 | 4 | **V46** |
| 41. My family treats me with fondness. | 1 | 2 | 3 | 4 | **V47** |
| 42. I feel warmly held by my family. | 1 | 2 | 3 | 4 | **V48** |
| 43. I experience emotional intimacy with my family. | 1 | 2 | 3 | 4 | **V49** |
| 44. I consider my family as trustworthy. | 1 | 2 | 3 | 4 | **V50** |
| 45. I believe my family respects me. | 1 | 2 | 3 | 4 | **V51** |
| 46. My family holds me dear. | 1 | 2 | 3 | 4 | **V52** |
| 47. I can cry openly in front of my family. | 1 | 2 | 3 | 4 | **V53** |
| 48. I am aware of my family's unconditional support. | 1 | 2 | 3 | 4 | **V54** |
| 49. My family trusts me with secrets. | 1 | 2 | 3 | 4 | **V55** |
| 50. I am open with family members. | 1 | 2 | 3 | 4 | **V56** |
| 51. My family recognise the true me. | 1 | 2 | 3 | 4 | **V57** |
| 52. I am familiar with my family and their problems. | 1 | 2 | 3 | 4 | **V58** |
| 53. My family understands me. | 1 | 2 | 3 | 4 | **V59** |

| | NEVER | SOMETIMES | OFTEN | ALWAYS | For office use only |
|---|---|---|---|---|---|
| 54. My family knows when I am down. | 1 | 2 | 3 | 4 | **V60** |
| 55. My family knows me best. | 1 | 2 | 3 | 4 | **V61** |
| 56. I do not have to compete with my family. | 1 | 2 | 3 | 4 | **V62** |
| 57. I feel complete when I am with my family. | 1 | 2 | 3 | 4 | **V63** |
| 58. My family knows my dreams and desires for myself. | 1 | 2 | 3 | 4 | **V64** |

In the following statements please consider how do you feel in general and how satisfied you are with your life. Read each statement carefully and decide to what extent you personally agree or disagree with it. Circle the number that corresponds with your opinion. Make sure you circle a number for every statement.

| | Strongly agree | Agree | Slightly agree | Slightly disagree | Disagree | Strongly disagree | For office use only |
|---|---|---|---|---|---|---|---|
| 59. My life could hardly be happier than it is. | 6 | 5 | 4 | 3 | 2 | 1 | V65 |
| 60. I usually feel quite cheerful. | 6 | 5 | 4 | 3 | 2 | 1 | V66 |
| 61. I believe that much of what I hope for will be fulfilled. | 6 | 5 | 4 | 3 | 2 | 1 | V67 |
| 62. When I think back on my life so far, I have achieved much of what I aspire to do | 6 | 5 | 4 | 3 | 2 | 1 | V68 |
| 63. I consider myself a happy person. | 6 | 5 | 4 | 3 | 2 | 1 | V69 |
| 64. I am satisfied with my life. | 6 | 5 | 4 | 3 | 2 | 1 | V70 |
| 65. I think that time will bring some more interesting and pleasant experiences. | 6 | 5 | 4 | 3 | 2 | 1 | V71 |
| 66. I am not as cheerful as most people. | 6 | 5 | 4 | 3 | 2 | 1 | V72 |
| 67. I am satisfied with my situation. | 6 | 5 | 4 | 3 | 2 | 1 | V73 |
| 68. I'm not often really elated. | 6 | 5 | 4 | 3 | 2 | 1 | V74 |
| 69. I generally look at the sunny side of life. | 6 | 5 | 4 | 3 | 2 | 1 | V75 |
| 70. When I look back on my life so far, I am satisfied. | 6 | 5 | 4 | 3 | 2 | 1 | V76 |
| 71. I usually feel as though I'm bubbling over with joy. | 6 | 5 | 4 | 3 | 2 | 1 | V77 |

**Participant 1:**

**Interviewer**: Thank you very much for helping me. I need some information to do some research. I just need to ask you a few questions about your family

**P1**: All right.

**Interviewer**: Now when I talk about family I mean your mom, dad and your brothers and sisters.

**P1:** Okay

**Interviewer:** How would you describe your relationship with your family?

**P1**: Well, my relationship with my family is really good. My dad is really good and with my mom is really good. With my middle brother Conrad is well with my middle brother not that well, we fight a lot but it is just because he is going through a phase. He is thirteen between fourteen phase, so that is why we have a bit of conflict but that is about it.

**Interviewer**: Are you the oldest?

**P1**: Yes I am.

**Interviewer**: Is it a new thing you fighting with him now?

**P1:** Yes, Ja it is just now. We have not fought before like as much as we are just because he is going through a little bit of a phase.

**Interviewer**: So you think it is him that is going through a phase.

**P1:** Ja, I don't, I just. He is, I would say he is just he is in that stage where he likes to irritates. Like I would be studying or something and he would like you to come do something with you. Then he gets a little bit irritated and then there is conflict. That is about it. Ja

**Interviewer:** So nothing serious.

**P1:** No not really.

**Interviewer:** Okay, do you experience closeness in your family?

**P1:** Hmmm yes we do because we

**Interviewer:** I am talking about you. Do you experience closeness in your family?

**P1:** Closeness. Hmmmm

**Interviewer:** Do you feel close towards your family?

**P1:** Ja, we share everything with each other, like if I had a bad experience I will share with my mom and dad. Like I encounter, say I have a fight at school I will be the first one to tell my mom and dad. The school will not tell her first I will tell her first.

**Interviewer:** You are open to each other?

**P1:** Ja we are very open with my family.

**Interviewer:** You do not feel that they judge you?

**P1:** No they do not judge me. My brothers will give me flack or taunt for like a week. Aah, but that is about it. Ja tease you.

**Interviewer:** What do you do together as a family that tells you that you are close?

**P1:** Well everything or every activity we do we do together so if say now my brother have to go to a friend, normally all three of my brother, all three of us will go together to that friend.

**Interviewer:** To the same friend?

**P1:** Yes to the same friend

**Interviewer:** Okay, but don't you have separate friends?

**P1:** We do say now if I had to I had a party like this Friday I have a party at with because the exams are over, me and my brother are going to the same friend although Conrad does not really hang out with my friend group he is still going with.

**Interviewer:** So he feels part of the group? You mention that you tell your parents when something bad happens. Do you also tell them when something good happens?

**P1:** Yes, Hmm

**Interviewer**: Like what? What will you tell them?

**P1:** Ahh, say now I get a distinction or I do very well in exam or a test then I will be the first, I will go straight towards them and I will tell them or I will show them the test that I got or that I did very well in. Or if I had a sport achievement I would show them the trophy or show them the certificate that I got.

**Interviewer:** And how would they respond?

**P1:** They will be very happy or cheerful and sometimes they would reward me like we have a system in our family that if you get above sixty we get R500 and if you get about eighty you get a R1000.

**Interviewer**: Is that an average?

**P1**: Ja at the end of the year. The average

**Interviewer:** Wow, that is something to work for.

**P1: Ja**

**Interviewer**: That is very nice. Do you have to be close to your family. I am talking about physical closeness or is it okay for you to go away long times.

**P1**: Hmmm, when I was younger it wasn't I got really homesick but now that I am older it is fine like when I was in I think grade three or four we went on a ahh, I was in a club or like a Voortrekker group and we went on a camp for seven days and I got very homesick. But now that I am older I do not really get that homesick. I have got used to it ja.

**Interviewer**: Do you go on sleep outs?

**P1**: Hmmm, Yes I go, sometimes almost as I stay for three days with my friend like from Friday to a Sunday. And then my mom picks me put like on Sunday afternoon or Saturday afternoon.

**Interviewer**: Do you think that the members in your family have a lot in common? Do you think that they are more or less the same?

**P1**: Hmmm, in a way yes, but we, my mom and dad they have their own like way of communicating. But I say Conrad has a different personality towards everyone else in the family like he is more deep and emotional than the rest of us than me and Andrew. Ja.

**Interviewer**: Okay, what would you say is the common thing between you?

**P1**: Hmm, ja we are all adventurous we like the outdoors like if my dad comes in winter we normally all go hunting. My mom would normally just stay at the cabin because she does not like seeing animals getting shot, ja me and my three brothers and my dad would normally go out on a hunting trip.

**Interviewer**: So you do that as a family?

**P1**: Ja

**Interviewer**: What else do you do as a family?

**P1**: Hmmm, like the fifth that is coming now in December we all me and a group of friends my brothers and my mom and my aunt and her sons all going to Sun City and we are having and we are spending the whole day there together. Ja that any activities we do we do together.

**Interviewer**: Do you enjoy spending time with your family?

**P1**: Yes I do a lot. Yes I would say it is more open with each other and more friendly with each other than I have to go with friends or people I do not really know.

**Interviewer:** So it is nicer for you with your family?

**P1:** Yes I prefer it yes.

**Interviewer**: Would you say that you are more like your mom or more like your dad?

**P1**: Hmmm. I say that I am both. Like I have more features of my dad but the personality of my mother. Like my dad he is very tall and he is well built and he is very masculine and when he was growing up he had the exact same experiences that I had like he had a very short growth rate and his growth spurt was a bit behind, the same thing I have. My personality is more towards my mother like caring, open hearted ja like that.

**Interviewer**: Is it important for you to feel that you are the same as your dad?

**P1**: Hmmm, not really, if I see that if I have a quality that is different towards my dad I would say it is fine I won't really get offended or feel left out if I don't have a personality or a tribute like my dad.

**Interviewer**: Do you sometimes feel that you are left out? Do you feel that you are outside of your family?

**P1**: No not at all. Never.  I actually never felt like that.

**Interviewer**: You always feel that you are part of the family and that your opinion counts? Is that what you experience?

**P1**: Yes

**Interviewer**: If we talk about belonging, the fact that you belong in this family. How would you see it, what is your place in this family?

**P1**: Hmm well I normally if mom like has to go somewhere, my dad works overseas, she is now mainly the head of the house while my dad is overseas. Then if she has to go like to a shopping centre or hang out with friends then normally I would take charge of my brothers. She would give me the things to do like if I have to cook food for my brothers I would cook food for my brothers, if I had to take the clothes or do some washing I would do the washing.

**Interviewer**: you do not mind?

**P1**: No I do not really mind. I will do it and when she comes back she will like give us all three like I do not know bring us a cool drink or bring us a chocolate or something.

**Interviewer**: You take charge of the household. And emotionally? Do you have to sort out sometimes emotions?

**P1**: If Conrad and Andrew sometimes fight then sometimes I have to break them up because those two are normally the ones that are going at each other but not really emotionally. They normally sort out their differences by themselves.

**Interviewer**: And your mom? Are you a pillar for her? Do you help her a lot when your dad is not around?

**P1**: Yes.

**Interviewer**: That give you quiet an important role to play. Are there other issues that you sort out at school with your brother?

**P1**: Ahmm. My brothers do not really have issues at school or anywhere. They normally, they are very shy outside the household so they don't normally go at people or have fights with people at school unless

they have a really bad day they then if it is Conrad calm down or Andrew count to ten or drink some water.

**Interviewer**: Will they listen to you?

**P1**: Yes they will. They normally come to me to ask what can he do in a situation. In grade seven Conrad had a fight with one of his friends and he came to me and asked what can he do so I gave him advice. I would tell him to say sorry or drink some water.

**Interviewer**: Would you say that you are loyal towards your family?

**P1**: Yes I am

**Interviewer**: Explain a little bit, why would you say that you are loyal towards your family?

**P1**: Hmmm well if my brothers or if my mom or someone like ahh felt left out or felt that they are being discarded from the family then I normally would give them or go to them and ask them why they or have a dmc with them or see what is their point of view.

**Interviewer**: What is a dmc?

**P1**: Deep emotional conversation. Ja and then I will bring both parties together or both people that were fighting and see what happens and after that give ahh ahh an explanation and say it is not really that bad you can just get over it. Ja.

**Interviewer**: Is that the role you play? You organise and sort out conflict in your family?

**P1**: Ja. Yes

**Interviewer**: Is that okay with you?

**P1**: Ja it is fine with me. It is exciting to see what messes my brothers get into and I have to fix it. Like a few days ago he we had tuck shop money and he lost it, he lost his R50 so I bought food for him and I gave him some of my money so he can get some lunch. mm

**Interviewer**: You are the big brother. Everyone always runs to you. Mom is not here, dad is not here and you have that responsibility.

**P1**: Yes. Ja.

**Interviewer**: They look up to you and respect you for that

**P1**: Yes they do. Ahmm hmm because Conrad is a bit bigger and stronger more masculine than me he would not take charge or get big headed. If I tell him to stop and calm down he would listen to me. Even though he is a bit stronger or whatever.

**Interviewer**: So do you think you are significant in your family?

**P1**: Hmm well when my dad is not here I am kind of the head of the house. I am like a second father to Conrad and Andrew. I would help them with a situation they get into I would help them. Hmm with my mother as well if she gets into hmm when I was a bit younger I think I was twelfth we were in a car accident and my mom I helped her get through it because she was very angry with the person and I told her she must just calm down it is not that bad we can get over it. Ja.

**Interviewer**: So you are important in your family. Your brothers value you as a person.

**P1**: Yes.

**Interviewer**: What do you think it is that they value? What is it that makes you so important in the family?

**P1**: Hmm, I would say my cool headedness, I would not get hm angry I have a very long fuse I would not just jump in and start fighting. If say now my brother are getting into a fight I would just calm them down if they will start coming after me I would not get angry calm down, just breath. Ja

**Interviewer**: Do you feel loved by your family?

**P1**: Yes I do.

**Interviewer**: Why do you feel loved?

P1: Because my mom and dad they are building a very nice house and they are doing it because for us in the future so I through that I feel very loved and very secure that they are doing that for us and our future so that we do not have to go and look for places to stay houses and that we have something to we have a nice place when we are older.

**Interviewer**: They are putting in a lot of time to create this wonderful home for you and your brother.

**P1**: Yes a lot of effort.

**Interviewer**: Do you think your brothers and your mom and dad feel loved?

**P1**: Hmm, yeah I do. Well Conrad is going through I would not say emotionally he is I would not say depressed he is he feels separated he looks like he feels separated from the family because he is always because when we have when we all sitting together as a group in the evenings he would normally sit in the caravan or he is sitting in his room talking on his phone. When we do activities he is part of us but when we are just talking he will sit in the TV room or something like that. I do not know. He is just Conrad. I cannot explain it (shrug shoulders and laugh). Andrew is normally the one starting a conversation he is such a chatterbox. He is saying random stuff, we just say yes Andrew, okay Andrew.

**Interviewer**: Conrad is going through something, Andrew is going through something are you also going through something?

**P1**: No I think I have gone through all of the things I had to hmm I think I am going through the helpful stage like I would help everyone see what there problem is help them in a way. Ja I think that is about it. I do not think that I am going through any stage right now.Ja.

**Interviewer**: Do you think that your family knows who you are? Your inner most feeling. Can you share that with them?

**P1**: Yes I can like hmmm my mom would sometimes when we are talking she would say I already knew that of you or before before I explain it to her she would say I already new that or if I had to or if I am playing rugby I would not hurt the person I will tackle him and put him nicely on the ground, she say I already know that of you

**Interviewer**: Don't you get hurt often because people abuse your good heartedness?

**P1**: No no one ever abuse or take advantage of that. They normally respect that and I will use it to help them. They would not ask me I will do it out of my own will.

**Interviewer**: Is there something about you that your parents and brothers do not know?

**P1**: Hmm. No… no not at all. Everyting that happens to me or I experience I share with them. I am friends with Conrad, my younger brother is a bot younger than me. We just share a lot we share everything.

**Interviewer**: Although he is different?

**P1**: Yeah even though he is a bit secluded we still share everything.

**Interviewer**: So you would tell him a secret?

**P1**: Yes I would tell him.

**Interviewer**: Will you tell your mom a secret?

**P1**: Yes I would tell my mom eventually. After a few days. I wil tell Conrad first, he will not blabber about it or spread rumours or whatever.

**Interviewer**: How do you deal with the fact that your dad is not around?

**P1**: Hmm… well… he we normally speak to him every morning so that normally encourages us to do well or hmm… or he normally sends packages or he speaks to us on email or stuff like that. He phones us every morning before school and every evening. I have gotten use to the fact that he works overseas and that.

**Interviewer**: Was there ever a time that he worked in South Africa?

**P1**: Yes it is only since 2008 that he works overseas. On a Saturday we normally go with him to sites wherever he was working we will spend the day with him.

**Interviewer**: Is there anything that you would like to change in your family? What would that be?

**P1**: I would probably have a sister. I would wanna have a sister. Brothers are normally very rough with each other and she can bring in the feminine side and give the other side of the opposite sex bringing what she feels.

**Interviewer**: Nothing else you want to change?

**P1**: No nothing. Not at all I think my family is fine like it is. Hmm... no nothing.

**Interviewer**: So your life is more or less eve?

**P1**: Yes I think I had a nice childhood a nice yes I would say nice childhood until now.

**Interviewer**: Can you remember your child hood and what it was like growing up?

**P1**: Yes I can. Hmm. When I was four or two we went to Zimbabwe and we spend about a few months there. We were going around Zimbabwe experiencing that and there is a lot of pictures of that, I enjoyed that. We went like the whole family. My mom side and my dad's side. My dad's brothers and my mom's sister we went as a big family group. Before we came to Pretoria we use to live in Phalaborwa. When I was about four we started living there and we moved back here when I was eight. Hmm.. we stayed with my aunt and she used to  because she is a teacher, she taught me from grade zero to grade 1. She gave me classes. I even have a picture when I was in her class.

**Interviewer**: Your family is quite connected?

**P1**: Yes. My grandparents live with us on the stand that we are now and ja, we are very close to them. We speak to them every day, great them ja.

**Interviewer**: When you were growing up did you experience all these emotions, did you feel loved, that you belong?

**P1**: Yes when I think I was sss, no when I started grade 1 ah, in Pretoria I went to a government school that was the only time when I felt like very homesick and I did not want to be at school at all because it was a very big class and people I did not know and I did not really like it. I did not really like that. The one day we went to class and when my mom left I ran home because I did not want to be at school.

**Interviewer**: But this has nothing to do with your family. This was more school/

**P1**: Yes when I was younger I would go out at day and explore, that was really fun for me.

**Interviewer**: If you do something bad and get into trouble what would happen?

**P1**: Hmmm… my mom would be very angry my dad would say just say it is an experience you experience it but do not do it again. My mom would kike punish me, ground me anything she can do she will do to not make me do it again but my dad my dad is more relaxed he said he use to do the same thing when he was younger or when he was growing up so he experienced it so he would say if you experience it do not do it again.

**Interviewer:** Thank you … it was nice talking to you.

**P1:** Thank you

| Dimension | KEY |
|---|---|
| Proximity | |
| Similarities/Sameness | |
| Significance | |
| Belonging | |
| Feeling loved | |
| Being known | |

# Appendix H:
## Definitions of Neufeld's dimensions of attachment

| DIMENSION | DESCRIPTION OF DIMENSION |
|---|---|
| **Proximity** | Proximity is seen as physical closeness to young children as they need contact with the person they are attached to, whether through smell, sight, sound or touch (Bowlby, 1980; Neufeld and Maté, 2006). The hunger for physical contact is visible across the life span, and the need for intimacy, warmth and affection with parents provide safety, comfort and re-assurance especially in times of stress or uncertainty (Ainsworth et al, 1978; Kaitz et al., 2004; Neufeld and Maté, 2006). |
| **Similarities/ Sameness** | People feel drawn and attached to individuals they can relate to (Byng-Hall and Stevenson-Hinde, 1991; Torgersenet al., 2007). Children identify and imitate that person and they try to be like the person they are closest to. The quest for sameness plays a huge role in shaping the personality and behaviour of children (Neufeld and Maté, 2006). When similarities and likeness are noticed by others, children take great pleasure, whether it is the same sense of humor, same preference in food or the same taste in music (Neufeld and Maté, 2006). |
| **Significance** | It is human to hold close what we value and to feel closer to people who is warm and accepting (Neufeld and Maté, 2006; Ryan, Brown and Creswell, 2007). If we feel we matter to somebody we will seek that person's favour to ensure closeness and connection. Children may feel hurt and rejected if they do not gain family's favour or approval (Neufeld and Maté, 2006; Ryan, Brown and Creswell, 2007). |
| **Belonging** | Belonging is defined to have the attribute of being valued, needed or important with respect to other people, groups or environments (Ryan, Brown and Creswell, 2007; Tabane and Human-Vogel, 2010). Sensitive, responsive parents promote security in attachment. Children feel secure in a relationship where open communication takes place and where the adult is available and reliable. Sense of belonging is rooted in early attachment systems that influence a person's developing view of self-in-relation to others (Collins et al., 2000; Hagerty et al., 1992). Early parental interaction and life experiences within the family might be related to the development of adult sense of belonging (Neufeld and Maté, 2006; Ryan, Brown and Creswell, 2007). |
| **Feeling Loved** | A supportive, loving relationship is critical in a healthy parent-child attachment bond Bretherton, 1992; Neufeld and Maté, 2006). Being respected and trusted support the feeling of being loved and cared for. Children who experience emotional intimacy with their parents can tolerate more physical separation and yet hold the parent close (Black and Schutte, 2006; Neufeld and Maté., 2006). |
| **Being Known** | To feel close to someone is to be known by them; in the pursuit of closeness, self-fulfilment and emotional connection a child will share his secrets (Neufeld and Maté, 2006). Being known is a feeling to be known on a very deep psychological level by family members. These children do not keep secrets from their parents because it could result in loss of closeness, they share deepest desires, dreams and things that are important for the young adult (Neufeld and Maté, 2006). |

| | | | | |
|---|---|---|---|---|
| 1. | I participate in family activities. | Belonging | Belonging | Proximity |
| 2. | We spend time together as a family. | Belonging | Belonging | Proximity |
| 3. | I enjoy holidays with my family. | Belonging | Belonging | Proximity |
| 4. | I like to have contact with my family. | Similarity | Similarity | Similarity |
| 5. | I feel emotionally close to my parents/siblings. | Proximity | Proximity | Belonging |
| 6. | My parents will share their emotions with us. | Proximity | Proximity | Proximity |
| 7. | I don't feel particularly close to some of my family members. | Belonging | Similarity | Similarity |
| 8. | I feel connected to my family. | Proximity | Proximity | Proximity |
| 9. | I have a strong connection with my parents. | Belonging | Belonging | Similarity |
| 10. | I feel part of my family. | Belonging | Feeling loved | Belonging |
| 11. | My family is available to me. | Belonging | Belonging | Belonging |
| 12. | I experience closeness from my family. | Loved | Significance | Significance |
| 13. | In my family we can share secrets with each other. | Being Known | Being Known | Being Known |
| 14. | People sometime comment that I look like my dad or mom. | Similarity | Similarity | Similarity |
| 15. | I feel different in my family. | Similarity | Similarity | Similarity |
| 16. | In my family I feel like the odd one out. | Similarity | Similarity | Belonging |
| 17. | I feel like I have a lot in common with my siblings. | Similarity | Similarity | Similarity |
| 18. | In my family we like many of the same things. | Similarity | Similarity | Similarity |
| 19. | I share enjoyment of the same things with my family. | Similarity | Similarity | Similarity |
| 20. | We have things in common. | Similarity | Similarity | Similarity |
| 21. | We share the same interests. | Similarity | Similarity | Similarity |
| 22. | I am similar to my family. | Similarity | Similarity | Similarity |
| 23. | My family resembles my interests. | Similarity | Similarity | Similarity |
| 24. | I do not enjoy family outings. | Belonging | Belonging | O |
| 25. | I am different from my family. | Loved | Similarity | Loved |
| 26. | I like to take part in family activities. | Belonging | Belonging | Proximity |
| 27. | We do a lot of things together. | Similarity | Belonging | Similarity |
| 28. | I feel my family appreciates me. | Loved | Loved | Belonging |
| 29. | I can share with anybody in my family. | Belonging | Belonging | Proximity |
| 30. | I feel like I fit into my family. | Belonging | Significance | Belonging |
| 31. | I experience closeness from my family. | Loved | Significance | Significance |
| 32. | I feel my family appreciates me. | Significance | Significance | Loved |
| 33. | I feel valued in my family | Belonging | Significance | Significance |
| 34. | My opinion matters in my family | Being Known | Loved | Loved |
| 35. | I feel that I play an important role in the family. | Significance | Significance | Significance |
| 36. | I can influence my family members | Significance | Significance | Significance |
| 37. | I feel accepted in the family. | Loved | Loved | Loved |
| 38. | My family members listen to me. | Belonging | Being Known | Being Known |
| 39. | My family have many disagreements. | Being Known | O | O |
| 40. | My family cannot settle conflict quickly. | Being Known | Being Known | Being Known |
| 41. | I struggle to help my family members with problems | Loved | Loved | Loved |
| 42. | I feel important to my family. | Belonging | Significance | Significance |
| 43. | I feel like my family will always be there for me. | Loved | Loved | Belonging |
| 44. | I am open with family members. | Belonging | Being Known | Being Known |
| 45. | In times of crisis we turn to each other for support. | Belonging | Belonging | Loved |
| 46. | I understand why my family wants to protect me from bad things. | Belonging | Belonging | Being Known |
| 47. | I have a strong connection with my parents | Significance | Belonging | Belonging |

| # | Item | Col1 | Col2 | Col3 |
|---|------|------|------|------|
| 48. | I spend time with my family on a daily basis | Belonging | Belonging | Proximity |
| 49. | I never feel that I do not belong in my family. | Belonging | Significance | Belonging |
| 50. | I do not feel left out. | Belonging | Significance | Belonging |
| 51. | I feel included in family decisions. | Being Known | Being Known | Significance |
| 52. | My family members normally ask my opinion. | Being Known | Loved | Loved |
| 53. | I have an important role to play in my family. | Being Known | Being Known | Significance |
| 54. | I trust my family with my secrets | Loved | Being Known | Loved |
| 55. | I am valued by my family. | Loved | Significance | Significance |
| 56. | My family is available to me | Proximity | Proximity | Proximity |
| 57. | I feel part of my family. | Belonging | Belonging | Significance |
| 58. | I can share with anybody in my family. | Similarity | Similarity | Similarity |
| 59. | I feel I fit into my family. | Belonging | Similarity | Similarity |
| 60. | It is important to meet my family responsibilities. | O | O | O |
| 61. | We show love towards each other. | Loved | Loved | Loved |
| 62. | I feel loved by my family. | Loved | Significance | Loved |
| 63. | My family treats me with fondness. | Loved | Loved | Loved |
| 64. | I feel warmly held by my family. | Loved | Loved | Loved |
| 65. | I experience emotional intimacy with my family. | Loved | Loved | Proximity |
| 66. | My family shows unconditional love towards me. | Loved | Loved | Loved |
| 67. | I consider my family as trustworthy. | Loved | Being Known | Loved |
| 68. | I believe my family respects me. | Loved | Loved | Loved |
| 69. | My family holds me dear. | Loved | Significance | Loved |
| 70. | My family do not care what I do. | Loved | Loved | Loved |
| 71. | I hate my family. | Loved | O | O |
| 72. | I dislike attention from my family. | Loved | O | O |
| 73. | I care what my family thinks about me. | Significance | Significance | Significance |
| 74. | It is important for me to be praised by my family. | Significance | Significance | Significance |
| 75. | My family trust me with secrets. | Loved | Being Known | Being Known |
| 76. | We do not show affection easily towards each other. | Proximity | O | O |
| 77. | My family know when I am down. | Loved | Being Known | Being Known |
| 78. | My family does not recognise the true me. | Being Known | Loved | Being Known |
| 79. | We accept each other's weaknesses. | Loved | Significance | Significance |
| 80. | We respect each other's space. | Proximity | Proximity | Proximity |
| 81. | I am familiar with my family and their problems. | Proximity | Proximity | Proximity |
| 82. | I appreciate it when my family know when to leave me alone. | Proximity | Belonging | Proximity |
| 83. | I do not have to compete with my family. | Loved | Loved | Being Known |
| 84. | My family is judgmental. | Belonging | O | O |
| 85. | We show interest in each other only if we get something out of it. | Significance | O | Significance |
| 86. | I suspect my family does not understand me. | Being Known | Being Known | Significance |
| 87. | I suffer because my family does not know me. | Belonging | Being Known | Being Known |
| 88. | I realise the importance of family in my life. | Significance | Significance | Proximity |
| 89. | I am friends with my family. | Belonging | Belonging | Loved |
| 90. | It is special to know my family accepts me. | Belonging | Significance | Belonging |
| 91. | I am aware of my family's unconditional support. | Loved | Significance | Loved |
| 92. | I can cry openly in front of my family. | Loved | Belonging | Loved |

| ANALYSIS | | |
|---|---|---|
| **How reliable is the Family Attachment Scale for Grade 11 and 12 students in their family unit?** | | |
| **Descriptive** — Reliability analysis (Pilot study + Main study)<br>Cronbach's alpha<br>Item analysis<br>Item correlations<br>Item total correlation<br>Principal component analysis | **Reason: Reliability**<br>Internal consistency reliability<br>Quality of items<br>Items should correlate with each other<br><br>Determine how many latent (factors) variables underlie a set of items<br>Explaining variation among variables<br>Defining the substantive content or of the factors<br>Identifying items that perform better/worse. | Proximity<br>Similarity<br>Significance<br>Belonging<br>Feeling Loved<br>Being Known |
| **What is the relationship between attachment and the family unit?** | | |
| **How do grade 11 and 12 students report on the quality of their attachment bonds?** | | |
| **Descriptive** — Frequency, mean, standard deviation, linearity, normality tests for total sample, distribution of:<br>Gender (V2)<br>Grade (V4)<br>Population Group (V5)<br>Parents marital status (V6) | **Reason:**<br>Identifying the pattern and distribution of the data. | Love<br>Similarity<br>Proximity<br>Significance<br>Knowledge<br>FATS<br>TWBTS |
| **Is there a statistical relationship between attachment and trait well-being?** | | |
| **Descriptive** — Correlations $p > 0.05$ | **Reason:**<br>To examine linear relationships between attachment and well-being | Love<br>Similarity<br>Proximity<br>Significance<br>Knowledge<br>TWBTS |
| **Does the quality of the family attachment possibly predict the trait well-being of family members?** | | |
| **Inferential** — General Linear Model - Regression model | **Reason:**<br>Finding the linear combinations of variables to maximise the prediction of criterion | FAS dim 1 (Love)<br>FAS dim 2 (Similarity)<br>FAS dim 3 (Proximity)<br>FAS dim 4 (Significance)<br>FAS dim 5 (Knowledge)<br>FASTS (Total Score)<br>TWBTS (Total Score) |

| RECORD LAYOUT | | | | | |
|---|---|---|---|---|---|
| **VARIABLE NUMBER** | **DEPENDENT INDEPENDENT VARIABLE** | **VARIABLE LABEL** | **VARIABLE TYPE** | **SPSS VARIABLE NAME** | **VALID VALUES** |
| V1 | | Student number | | STN | 1 - 208 |
| V2 | IV | Gender | Categorical | SEX | 1 = male<br>2 = female |
| V3 | | Age in years | Continuous | AGE | 1 = 16<br>2 = 17<br>2 = 18 |
| V4 | | Current Grade | Categorical | CG | 1 = Grade 11<br>2 = Grade 12 |
| V5 | | Population Group | Categorical | PG | 1 = White<br>2 = Black<br>3 = Asian<br>4 = Indian<br>5 = Other |
| V6 | IV | Parental Marital Status | Categorical | PMS | 1 = Parents married<br><br>2 = Parents divorced<br>3 = Single mother<br>4 = Single father |
| **DIMENSIONS FAQ** | | | | | |
| V7 - V14 | IV | Proximity | Continuous | PROX | 1 = Never (N)<br>2 = Sometimes(S)<br>3 = Often (O)<br>4 = Always (A) |
| V15 - V26 | IV | Similarities | Continuous | SIM | 1 = Never (N)<br>2 = Sometimes(S)<br>3 = Often (O)<br>4 = Always (A) |
| V27 - V36 | IV | Significance | Continuous | SIG | 1 = Never (N)<br>2 = Sometimes(S)<br>3 = Often (O)<br>4 = Always (A) |
| V37 - V47 | IV | Belonging | Continuous | BEL | 1 = Never (N)<br>2 = Sometimes(S)<br>3 = Often (O)<br>4 = Always (A) |
| V48 - V56 | IV | Feeling Loved | Continuous | FL | 1 = Never (N)<br>2 = Sometimes(S)<br>3 = Often (O)<br>4 = Always (A) |
| V57 - V64 | IV | Being Known | Continuous | BK | 1 = Never (N)<br>2 = Sometimes(S)<br>3 = Often (O)<br>4 = Always (A) |

| | | **RECORD LAYOUT** | | | |
|---|---|---|---|---|---|
| | | **TRAIT WELL-BEING INVENTORY (TWBI)** | | | |
| V65 | DV | Life Satisfaction | Continuous | LS present | 6 = Strongly Agree<br>5 = Agree<br>4 = Slightly Agree<br>3 = Slightly Disagree<br>2 = Disagree<br>1 = Strongly Disagree |
| V66 | DV | Mood Level | Continuous | ML | 6 = Strongly Agree<br>5 = Agree<br>4 = Slightly Agree<br>3 = Slightly Disagree<br>2 = Disagree<br>1 = Strongly Disagree |
| V67 | DV | Life Satisfaction | Continuous | LS forward | 6 = Strongly Agree<br>5 = Agree<br>4 = Slightly Agree<br>3 = Slightly Disagree<br>2 = Disagree<br>1 = Strongly Disagree |
| V68 | DV | Life Satisfaction | Continuous | LS past | 6 = Strongly Agree<br>5 = Agree<br>4 = Slightly Agree<br>3 = Slightly Disagree<br>2 = Disagree<br>6 = Strongly Disagree |
| V69 | DV | Mood Level | Continuous | ML | 6 = Strongly Agree<br>5 = Agree<br>4 = Slightly Agree<br>3 = Slightly Disagree<br>2 = Disagree<br>6 = Strongly Disagree |
| V70 | DV | Life Satisfaction | Continuous | LS present | 6 = Strongly Agree<br>5 = Agree<br>4 = Slightly Agree<br>3 = Slightly Disagree<br>2 = Disagree<br>6 = Strongly Disagree |
| V71 | DV | Life Satisfaction | Continuous | LS forward | 6 = Strongly Agree<br>5 = Agree<br>4 = Slightly Agree<br>3 = Slightly Disagree<br>2 = Disagree<br>6 = Strongly Disagree |
| V72 | DV | Mood Level | Continuous | ML | 6 = Strongly Agree<br>5 = Agree<br>4 = Slightly Agree<br>3 = Slightly Disagree<br>2 = Disagree<br>6 = Strongly Disagree |
| V73 | DV | Life Satisfaction | Continuous | LS present | 6 = Strongly Agree<br>5 = Agree<br>4 = Slightly Agree<br>3 = Slightly Disagree<br>2 = Disagree<br>6 = Strongly Disagree |
| V74 | DV | Mood Level | Continuous | ML | 6 = Strongly Agree<br>5 = Agree<br>4 = Slightly Agree |

| | | | | | 3 = Slightly Disagree<br>2 = Disagree<br>6 = Strongly Disagree |
|---|---|---|---|---|---|
| V75 | DV | Mood Level | Continuous | ML | 6 = Strongly Agree<br>5 = Agree<br>4 = Slightly Agree<br>3 = Slightly Disagree<br>2 = Disagree<br>6 = Strongly Disagree |
| V76 | DV | Life Satisfaction | Continuous | LS<br>past | 6 = Strongly Agree<br>5 = Agree<br>4 = Slightly Agree<br>3 = Slightly Disagree<br>2 = Disagree<br>6 = Strongly Disagree |
| V77 | DV | Mood Level | Continuous | ML | 6 = Strongly Agree<br>5 = Agree<br>4 = Slightly Agree<br>3 = Slightly Disagree<br>2 = Disagree<br>6 = Strongly Disagree |

## TRAIT WELL BEING INVENTORY SCALE

### Scale Score Computation

**The Mood Level Scale consist of 6 items:**
60  63  66*  68*  69  71
Starred items should be reverse coded before aggregation.

**The General Life Satisfaction Scale consists of the following 7 items which are aggregated together:**
59   64  67    (regarding the present)
62   70      (regarding the past)
61   65      (forward-looking)

**TRAIT WELL BEING TOTAL SCORE (TWBTS)**:
(V65+V66+V67+V68+V69+V70+V71+V72+V73+V74+V75+V76+V77)/13

**TRAIT WELL BEING MOOD LEVEL SCORE (TWBMLS):**
(V66+V69+V72*+V74*+V75+V77)/6

**TRAIT WELL BEING LIFE SATISFACTION SCORE (TWBLSS):**
(V65+V67+V68+V70+V71+V73+V76)/7

## FAMILY ATTACHMENT SCALE

### Scale Score Computation

**The Family Attachment Scale consists of 5 dimensions:**
Love        = V38+V44+V45+V46+V47+V48+V50+V51+V52+V54)/10
Similarity    = (V20+V21+V22+V23+V24+V25)/6
Proximity    = (V7+V8+V9+V11+V12+V16+V17)/7
Significance = (V31+V32+V33+V34+V43)/5
Knowledge   = (V18+V37+V57+V60+V61+V64)/6

**FAMILY ATTACHMENT SCALE TOTAL SCORE (FASTS)**
(V7+V8+V9+V11+V12+V16+V17+V18+V20+V21+V22+V23+V24+V25+V31+V32+V33+V34+V37+V38
 +V43+V44+V45+V46+V47+V48+V50+V51+V52+V54+V57+V60+V61+V64) / 34

| Dimension | Key words | Possible Questions |
|---|---|---|
| **Proximity** | Physical closeness<br>Emotional Closeness<br>Contact<br>Support and availability of parent to advice and comfort<br>Nearness<br>Present | How do you experience closeness in your family…?<br>Tell me about your holidays...<br>How close are you with your family…Explain…?<br>Talk about openness in your family…<br>Tell me about family time... what you do as a family…<br>Do you participate in family activities…? |
| **Similarities and Sameness** | Similarity<br>Identification<br>Likeness<br>Resemblance<br>Difference (antonym) | How do you experience yourself…?<br>Tell me about the person in your family you feel closest to…<br>Are your family members alike… in what way…?<br>What are the things that you like about your family…?<br>Can you identify with family members… who…explain…? |
| **Significance** | Connection<br>Acceptance<br>Feel you matter<br>Meaning<br>Important<br>Meaningless<br>ness (antonym) | Do you enjoy spending time with your family… explain…<br>What is your role in the family…?<br>Is it important for you… family…?<br>What give meaning to your family life…?<br>What would you change about your family…?<br>Are you appreciated for who you are…?<br>Do the family members listen to you…? |
| **Belonging** | Lay claim<br>Fit in<br>Interpersonal relatedness /feel part<br>Support<br>Being valued | Do you feel that you belong in your family…?<br>Can you relate with family members… explain…<br>Do you feel that you fit in with them… are valued…<br>Does your opinion matter to your family…<br>Who do you turn to when you need support…?<br>Do you feel part of your family…?<br>Are you included in your family's decisions...? |
| **Feeling Loved** | Supportive<br>Respect and trust<br>Warmly held<br>Emotional intimacy<br>Precious<br>Praised<br>Treasured<br>Hated (antonym) | Do your family support you… explain…<br>Do your family respect your choices…?<br>Do you experience feelings of love…?<br>What makes you feel loved… how you know that you are loved…?<br>Does your family praise you…explain… |
| **Being Known** | Self -fulfilment<br>Emotional connection<br>Accepted<br>Recognised | Do you show your family the real you…explain…?<br>Do they accept you for who you are…?<br>Can they recognise your strengths …explain…?<br>Will you tell them your secrets…?<br>Are you friends with family members…<br>Can you show real emotion with your family…?<br>What makes you feel connected to your family…?<br>Explain… |

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