EXPLORING FAMILY CONFLICT STYLE AS A CORRELATE OF COMMITMENT TO THE FAMILY OF ORIGIN

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EXPLORING FAMILY CONFLICT STYLE AS A CORRELATE OF COMMITMENT TO THE FAMILY OF ORIGIN

by

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SUMMARY

EXPOLORING FAMILY CONFLICT STYLE AS A CORRELATE OF COMMITMENT TO THE FAMILY OF ORIGIN

SUPERVISOR: Dr Salomé Human-Vogel
STUDENT: Chriso Valentina Katerina Sofocleous
DEGREE: MEd (Educational Psychology)

The present exploratory study examines family conflict style as a correlate of commitment to the family of origin in a one-stage random cluster sample of 200 university students between the ages of 18 and 25. The hypothesis rests on the theoretical assumption that family climate factors, such as conflict, influences commitment to the family of origin. I argue that family conflict style (adaptive or maladaptive) is associated with the level of commitment to the family of origin. Surveys are utilised to collect data in the present study which includes two scales, namely the Family Conflict Style Scale (FCS) and the Family Commitment Scale (FC). The Family Commitment Scale (FC) is an adaptation of Rusbult's (1998) Investment Model Commitment scale and the Family Conflict Scale (FCS) is a new scale that was constructed for the purpose of the present study, derived from Gottman's (1993) definitions of couple conflict styles, in order to examine conflict styles within a family and to examine the correlations to see whether family conflict style can be associated with commitment. The Family Resilience Framework (Walsh, 2003) and the Marital Spillover Hypothesis (Gerard, Krishnakumar & Buehler, 2009) guides the present study in better understanding how the constructs marital conflict style and commitment can also be viewed as systemic variables influencing the entire family. Results revealed that all correlations between conflict styles and commitment to the family of origin were found to be significant at the -.01 level. Findings support the value in exploring family conflict style in relation to commitment to the family of origin and, for the current sample, suggest that a more adaptive conflict style positively relates to the level of commitment whereas a maladaptive conflict style negatively relates to the level of commitment to the family of origin.

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KEY CONCEPTS

- Family Conflict Styles
- Couple Conflict Styles
- Marital Conflict
- Family of Origin
- Family Commitment
- Satisfaction
- Cohesion
- Meaningfulness
- Loyalty
- Independence
- Marital Spillover Hypothesis
- Resilience Framework

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CHAPTER 1

Introduction, Problem Statement, Rationale and Research Question

1.1 INTRODUCTION

In the present study I will explore factors associated with conflict styles and commitment to the family of origin. My hypothesis rests on the theoretical assumption that family climate factors, such as conflict (Gottman, 1993), influences commitment to the family of origin. I will argue that family conflict style is associated with the level of commitment to the family of origin. Noller, Feeney, Peterson and Atkin (2000) point out that conflict is a persistent feature of family life with either positive or negative effects. Salkind (2008) also confirms that "conflict can be functional or dysfunctional, depending on how the conflict is managed" (p. 180). Thus, how a family expresses conflict determines whether they resolve it effectively. To a certain degree, conflict in a family is inevitable, and I will argue that commitment to the family of origin is associated with adaptive management of conflict in families.

1.2 BACKGROUND AND CONTEXT OF THE STUDY

1.2.1 Family conflict styles

I draw on Gottman's (1993) theory of couples' conflict styles to explore how family members might handle conflict relationally. Gottman (1993) describes couple conflict as either regulated (adaptive) or non-regulated (maladaptive). Cummings, Davies and Campbell (2000) illustrate from multiple studies how marital conflict can have a direct effect on the functioning of children in the family. Thus, couples' conflict regulation strategies can set the tone for the style a family develops for dealing with conflict. This effect, known as the marital spillover hypothesis, will be discussed at length in Chapter Two.

According to Gottman (1993), adaptive conflict styles emphasise positive communication behaviours to negative ones. Maladaptive conflict styles are defined as "those for whom the balance between positive and negative affective behaviors fails to increasingly favor positive affective behaviors over time, have marriages that appear, in many ways, to be much more dysfunctional than those of regulated couples" (Gottman, 1993, p.18). Gottman (1993) describes five types of conflict styles, namely volatile, validating, avoiding, hostile-engaged and hostile-detached.

The adaptive approach to handling conflict consists of three conflict styles, namely volatile, validating and avoiding (Gottman, 1993, 1994). Gottman (1994) describes the volatile style as highly emotional with extreme levels of both positive and negative affect. Individuals actively engage in heated arguments in order to persuade each other, however rarely withdraw from the conflict (Gottman, 1994). The validating style is associated with more calm and ease during disagreements, with individuals showing understanding and valuing each other's viewpoints and emotions (Gottman, 1994). The avoidant style emphasises that individuals can agree to disagree, and persuasions are kept to a minimum (Gottman, 1994). Similarly, Cann et al. (2008), describes adaptive conflict styles as constructive in that individuals generally attempt to achieve a positive balance between the conflict and their relationship.

Contrastingly, a maladaptive approach to conflict is associated with highly dysfunctional interactions and comprises of hostile-engaged and hostile-detached styles (Gottman, 1994). Hostile-engaged styles are marked by defensiveness, contempt or personal criticism by individuals, who generally also engage directly in conflict (Gottman, 1994). Hostile-detached styles can be viewed as emotionally detached to one another and are characterized by a lack of involvement (Gottman, 1994).These conflict styles will be further elaborated on in Chapter Two.

1.2.2 Commitment in a family context

Adams and Jones (1999) comment that relationships can remain stable even though partners experience low satisfaction. Research has illustrated that "highly committed individuals are substantially more likely to persist in their relationships" (Rusbult, Martz, & Agnew, 1998, p. 360). Therefore, I view commitment as an appropriate construct for considering why interpersonal relationships in families can remain stable and committed despite the presence of adaptive conflict. The study of commitment began with studies as early as the 1970's with Michael Johnson (1973) developing a framework to study the correlates of commitment and Caryl Rusbult together with colleagues (1980) developing a theory of commitment within the interdependence theory framework. The Rusbult et al. (1998) Investment Model of Commitment has been used extensively to measure and predict commitment and perseverance in romantic, heterosexual relationships (Le & Agnew, 2003). The Rusbult et al. (1998) investment model conceptualises interpersonal commitment in terms of increasing dependence on a relationship and describes three bases of dependence, namely Satisfaction Level, Quality of Alternatives, and Investment Size. *Satisfaction* refers to the extent that partners fulfil each other's most important needs (Rusbult et al. 1998), *quality of alternatives* considers the extent to which

important needs could be fulfilled effectively outside of the relationship (Rusbult et al. 1998), and *investment size* refers to the degree and significance of the resources that are attached to a relationship (Rusbult et al. 1998). The Investment model was adapted to study commitment in a family context and is discussed in a study conducted by Human-Vogel (2013). The factor analysis in Human-Vogel's (2013) study resulted in the following constructs: Cohesiveness, Loyalty, Independence and Meaningfulness.

Similarly, Fincham, Stanley and Beach (2007) argue that commitment, sacrifice, forgiveness and satisfaction aid in couples accommodating to the challenges they face, such as conflict. Fincham et al. (2007) argue that commitment has been broadly researched and numerous articles exist on how commitment can be conceptualised and measured. In the present study, I argue that commitment is the intrinsic desire to remain dedicated, sustaining family relationships, stability and cohesion during difficult periods (Fincham et al. 2007). My study is rooted in the Family Resilience Framework (Walsh, 2003), which will be described in depth in Chapter Two, as families have strengths that can enhance their commitment. Baldwin and Hoffman (2002) further illustrate in their study that family cohesion was founded on quality time spent together as a family and good communication. Thus, family attachment, stability, cohesion, communication and the intrinsic desire to remain dedicated can enhance the amount of satisfaction that family members derive from their interactions with each other, therefore motivating them to maintain their ties and commitment with their family (Baldwin & Hoffman, 2002).

1.3 PROBLEM STATEMENT

The present study has been formulated in response to the gap in literature informing family conflict and family commitment. Current literature in terms of commitment, informs mostly on commitment in organisational settings (Graves, Ohlott & Ruderman, 2007) and heterosexual relationships (Rusbult et al. 1998; Le & Agnew, 2003), furthermore, literature was found on family and conflict but none addressing family conflict styles in particular. Thus, the present study seeks to not only inform literature on conflict but primarily conflict styles as being adaptive and maladaptive.

Some relationships persist regardless of the dissatisfaction and conflict, whereas some apparently satisfying relationships end. It is essential to understand why some relationships survive fluctuations while others do not. According to Adams and Jones (1999), various studies

explore the notion that relationships demonstrate long term stability even if their level of satisfaction within the relationship is low. In essence, I argue that commitment is considered an underlying explanation as to why unsatisfying relationships seem to remain stable. Rusbult et al.'s (1998) Investment Model of Commitment, as mentioned above, has been used in a variety of studies and contexts (romantic heterosexual relationships and organisational) to measure and predict commitment. The Model assumes that commitment develops when dependence on a relationship increases. According to Rusbult et al. (1998), commitment is defined as the objective to persist in a relationship. All relationships are bound to experience some form of conflict and encounter obstacles. Accommodating and a willingness to sacrifice during difficult periods will help maintain and stabilize relationships Rusbult et al. (1998). Therefore, I argue that high levels of commitment, given its relation to positive relationship outcomes, should then be associated with positive outcomes for the individual as well. It should be noted that commitment to the family of origin are made in context of rather permanent family ties, and there is reason to suspect that different types of conflict in families are likely to be associated differently with family members' commitment to the family of origin. As argued above, most available research focus much on dyadic conceptions of family conflict, and not so much on systemic conceptions of conflict.

Some research has also focused on the development of commitment requiring a harmonious family environment, free of conflict (Fincham et al. 2007; Baldwin & Hoffman, 2002). Of course, suggesting that families should be free of conflict for commitment to develop, may be unrealistic. I believe it may be more realistic, and in line with Gottman's (1993) studies of conflict patterns, to suggest that conflict can have adaptive and maladaptive outcomes that will differ in relation to one's level of commitment to their family. Conflict is a relatively persistent feature of family life, the effects of the conflict is however determined by how the conflict is expressed, and whether it is effectively resolved or not (Noller et al. 2000). Following the aforementioned argument, I argue that commitment to one's family can still be possible given more adaptive conflict styles within the family.

1.4 RATIONALE

In my Honours year (2009), I participated in data collection that focused on family commitment in order to better understand what keeps families together and committed. Looking at our findings with regards to the marital status of the parents of our respondents, we found that respondents from intact families displayed higher commitment levels than those from divorced

or reconstituted families. In collaboration with my supervisor, we decided that further research was needed to understand what keeps families together and committed regardless of the hardships they may face, such as conflict. A review on the literature on conflict yielded many articles on conflict between the marital systems (parents) as opposed to conflict within the family structure. It appeared to me that more research was needed to better understand conflict within the family system and what variables facilitate the process of commitment. The exploration of possible relationships between conflict style and the relation that has on one's commitment may provide insight into why adults choose to maintain family ties irrespective of the difficulties they face. Therefore, the rationale for the present study was formulated in response to the gap in literature with regards to family conflict and family commitment. Thus, to better understand the relationship between family conflict style and commitment to the family of origin, it can be understood that conflict in general has a negative connotation and some would assume that any conflict would negatively influence one's commitment to their family of origin. Whereas, for the present study, I argue that conflict is not necessarily negative and can be understood to either be adaptive or maladaptive. Adaptive conflict could contribute to fostering and promoting commitment whereas maladaptive conflict could have a negative effect. Furthermore, the relevance of the present study is to provide an understanding of family conflict style and commitment to one's family of origin thus; demonstrating how family conflict style and commitment are correlated and further contributing to certain literature on family commitment and family conflict.

1.5 AIM OF THE STUDY

The purpose of the present research is to explore the relation of family conflict style to commitment to one's family of origin as well as to develop a scale that measures conflict within one's family of origin. A further purpose of this study is to determine whether demographic variables such as gender, relationship status, age and marital status of parents differ in terms of conflict style. The research questions in the next section further elaborate the aim of my study.

1.6 RESEARCH QUESTION

1.6.1 Primary question

The primary research question that guides the present study is:

What is the relationship between family conflict style and commitment to the family of origin?

1.6.2 Sub questions

The primary research question consists of several sub questions.

1. *How can family conflict styles be measured?*
2. How do demographic variables such as gender, age and relationship status differ in terms of young adults' experience of family conflict styles?
3. How do family factors such as parent's marital status and relationship with parents' differ in terms of family conflict styles?
4. How are adaptive and maladaptive family conflict styles related to family commitment?

The research questions will be investigated by studying the relationships between conflict and commitment as reported by the participants, and by investigating subgroup differences in the scale means. In the present study, three sets of hypotheses were developed to examine the research questions.

1.6.3 First set of hypotheses: Testing subgroup differences in scale means for two groups (Sub question 2) – Mann-Whitney U Test.

Null Hypothesis $H_0 : \mu_{1.2} = 0$	Alternative Hypothesis $H_A : \mu_{1.2} \neq 0$
There is no significant difference between subgroups (gender, age and relationship status) in terms of the study variable (family conflict style).	There is a statistically significant difference between subgroups (gender, age and relationship status) in terms of the study variable (family conflict style).

1.6.4 Second set of hypotheses: Testing subgroup differences in scale means for three or more groups (Sub question 3) – Kruskal-Wallis H.

Null Hypothesis $H_{0:} \mu_a = \mu_{,b}, = \mu_c$	Alternative Hypothesis $H_A: \mu_a \neq \mu_{,b}, \neq \mu_c$
There is no significant difference between subgroups (marital status of parents and relationship with parents) in terms of the study variable (family conflict style).	There is a statistically significant difference between subgroups (marital status of parents and relationship with parents) in terms of the study variable (family conflict style).

1.6.5 Third set of hypotheses: Correlations between study variables (Sub question 4) – Spearman's Rho.

Null Hypothesis	Alternative Hypothesis
H_0: $\rho_{xy} = 0$	H_A: $\rho_{xy} \neq 0$
There is no statistically significant relationship between the study variables (family conflict style and family commitment).	There is a statistically significant relationship between the study variables (family conflict style and family commitment).

1.7 DEFINITION OF TERMS

1.7.1 Family Conflict

For the purpose of the present study, family conflict is defined as two or more persons having contrasting opinions, values, desires or expectations which in turn cause interpersonal tension or struggle (Kramer, Kavanaugh, Trentham-Dietz, Walsh & Jonker, 2009).

1.7.2 Family Conflict style

To understand how a prevalent conflict style in a family can be measured, a definition of conflict style is necessary. Cann, Norman, Welbourne and Calhoun (2008) define a conflict style as "how an individual responds to another person when conflict arises in the relationship" (p. 132). Gottman's work is used throughout the present study to differentiate between the relational styles a family employs while handling conflict. According to Gottman (1994) there are two kinds of conflict styles which have been adapted for the purpose of the present study to describe family conflict as opposed to couple conflict: adaptive, consisting of the validating, volatile and avoidant style and maladaptive, consisting of hostile and hostile-detached.

1.7.3 Family

In the present study, I define family as the family or origin in terms of Knapp and Daly's (2002) definition as immediate family, extended family or individuals who share some form of biological or sociolegal rightfulness through marriage, adoption or shared genetics.

1.7.4 Family Commitment

To better understand commitment within a family a definition of commitment is necessary. Rusbult et al. (1998) defines commitment as the "intent to persist in a relationship, including

long-term orientation toward the involvement as well as feelings of psychological attachment" (p. 359). In the present study, commitment level is viewed as a psychological attachment and sense of belonging to the family of origin that is characterised by feelings of dependence and cohesion (Adams & Jones, 1999). Furthermore, Human-Vogel's (2013) study describes the following constructs of commitment to the family of origin, which are further elaborated on in her study: Cohesion (satisfaction), Loyalty and Independence (quality of alternatives) and Meaningfulness. *Satisfaction* is defined as the satisfaction gained from continued involvement with and reliance on the family of origin for love and support, and is characterised by feelings of connectedness and cohesion. According to Olson (2006), family satisfaction is "the degree to which family members feel happy and fulfilled with each other" (p. 1). *Loyalty* (Quality of Alternatives) is a sense of disillusionment with the family of origin and characterised by relinquishment of the family as a source of support, love, and belonging (Human-Vogel, 2013). For the purpose of the present study, it must be taken into consideration that Loyalty was measured inversely, thus a high score on the Loyalty scale would be indicative of a lack of loyalty towards ones family of origin. *Independence* (Quality of Alternatives) is defined as the extent to which a family member would rather invest time and resources nurturing relationships outside the family of origin (Human-Vogel, 2013) and *Meaningfulness* is seen as the extent to which the family of origin encourages members to develop their identity and to support expression of their identity (Human-Vogel, 2013).

1.8 CONCEPTUAL FRAMEWORK

Sinclair (2007) describes a conceptual framework as concepts that are broadly defined and organized systematically to provide a rationale, a focus and a tool in order to interpret and integrate information. My conceptual framework is presented in Figure 1.1 below.

Powell (2009) notes that family commitment is directly associated with the extent that members dedicate themselves to making things work and to solve conflicts. I argue that Gottman's (1993) study of conflict patterns provides us with the tool to interpret conflict as adaptive or maladaptive that will systemically show different relationships with commitment to one's family of origin. Etcheverry and Le (2005) maintain that people engaging in adaptive conflict will accommodate each other thus the relationship will be maintained better. Relationship maintenance is strongly related to commitment. Willingness to sacrifice involves compromising one's own interests in service of one's relationship with another. Accommodation involves acting in the best interest of the family even during times of conflict, helping to maintain the relationship (Etcheverry & Le,

2005). Accommodation and sacrifice are equally important adaptive constructs in family relationships.

Couples engaging in maladaptive conflict fail to maintain a balance between positive and negative interactions (Gottman, 1994). Over time, negative interactions such as, conflict engagement, stubbornness and withdrawal, can begin to outweigh the positive interactions and negatively affect the commitment to one's family. Therefore, highly dysfunctional interactional processes become more frequent in the home (Holman & Jarvis, 2003).

Based on the preceding analysis, I expect certain relationships among the constructs under study (Figure 1.1). The level of commitment to one's family of origin could be negatively affected should the family develop a maladaptive conflict style, whereas a positive relationship could be hypothesized with adaptive conflict styles. The expected relationships form the hypotheses (mentioned earlier) in this present research.

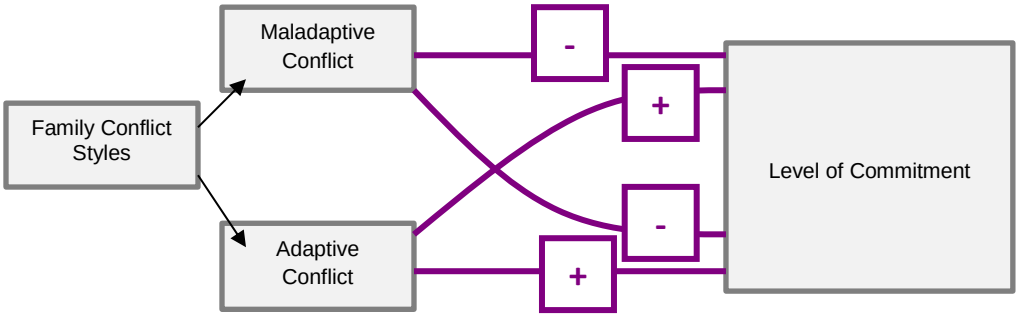

Figure 1.1: Conceptual Framework

The expected relationships (hypotheses) between the study variables are summarised in Table 1.1.

TABLE 1.1: Study variable relationships

	Maladaptive Conflict (MC)	Adaptive Conflict (AD)	Commitment Cohesion (CC)	Quality of alternatives Loyalty (CL)	Quality of alternatives Independence (CI)	Commitment Meaningfulness (CM)	Commitment Level (CL)
MC	1	-	-	+	+	-	-
AC		1	+	-	-	+	+
CC			1	-	-	+	+
CL				1	+	-	-
CI					1	-	-
CM						1	+
							1

When looking at maladaptive conflict, the expected relationships are as follows:

- A negative relationship to level of cohesion;
- A positive relationship is expected with quality of alternatives, both loyalty and independence;
- A negative relationship to meaningfulness and;
- A negative relationship is expected to overall level of commitment.

Engaging in adaptive conflict yields the following expected relationships:

- A positive relationship to level of cohesion;
- A negative relationship is expected with quality of alternatives (loyalty and independence);
- A positive relationship to meaningfulness and;
- A positive relationship is expected to level of commitment.

To study the relationships expected in this present study, a quantitative cross-sectional correlational design was chosen.

1.9 RESEARCH DESIGN

1.9.1 Ontological paradigm

The ontological position that I take in the present study, stems from the positivist paradigm that describes reality from an external point of view (Maree & van der Westhuizen, 2007). Nieuwenhuis (2007) further says that "positivist researchers postulate that there is one objective reality that is observable by an inquirer who has little, if any, impact on the object being observed – the object (or phenomenon) has ontological status in itself and therefore can be studied objectively from the outside" (p. 53). Thus, from a positivist stance, I view reality as objective, measurable and observable.

The major purpose of a positivist paradigm is to discover cause and effect relationships (Nieuwenshuis, 2007), although it is acknowledged that correlational studies (such as the present study), preclude any inferences of causality among the constructs (Nieuwenshuis, 2007). The positivist paradigm suits the methodology of the present study as it involves objective measurement of theoretical constructs to determine the relationships between them.

1.9.2 Methodological paradigm

Cohen, Manion and Morrison (2007) argue that, "a scientific approach involves standards and procedures for demonstrating the "empirical warrant" of its findings, showing the match or fit between its statements and what is happening in the world" (p. 4). In the present study, I explore the association between family conflict style and commitment to the family of origin from a quantitative perspective. I argue that family conflict style and commitment to the family of origin is theoretically related and that this relationship can be studied quantitatively. A quantitative study with a cross-sectional correlational design was selected in order to establish construct-related validity, in terms of investigating the correlation between constructs of family commitment and family conflict within a single data collection (Creswell, 2003; Salkind, 2010; Downie & Heath, 1970; Jackson, 2006). Quantitative research will enable exploration and answers to the research question by exploring the statistical relationships between the study variables (conflict style and family commitment).

1.9.3 Sampling criteria

My sample will comprise of young adults (between the ages of 18 and 25), living within Pretoria and studying at a university. I argue that young adults would best represent the sample for the present study as an important developmental task for young adults is to attain self-differentiation

while maintaining healthy connections with the family of origin (McGoldrick & Shibusawa, 2012). Young adults strive for independence but generally still maintain their ties with their family of origin, thus maintaining healthy connections (McGoldrick & Shibusawa, 2012). The sample therefore comprise of relatively educated young adults, proficient in English, who can reflect on relationships in their family of origin and who can respond to the content of the instrument.

1.9.4 Sample selection

I will select the sample using a one-stage random cluster sampling method (Nieuwenhuis, 2007), which is more practical and cost-effective than simple random sampling. In the present study, a cluster will represent an undergraduate module, obtained from the university administration. Clusters (modules) will be selected randomly until sample size requirements are met. Although superior to convenience sampling, limitations still exist, most notably the lack of representativeness (Maree & van der Westhuizen, 2007). It is essential to point out that in a study of commitment there is a high likelihood of bias, as more committed participants would be more likely to participate than non-committed participants. Therefore, some element of randomness helps to address this problem partially.

1.9.5 Surveys

I will utilise surveys as a means to collect data. Church and Waclawski (1998, p. 3) state that a survey is a process for asking individuals various questions in order to obtain information; this information can either be, “factual, attitudinal or designed to assess an individual’s beliefs or judgments”. Babbie (2005, p. 252) further notes that surveys are “excellent vehicles for measuring attitudes and orientations in a large population” and are appropriate for exploratory studies as well as collecting original data which are descriptive of a large population.

1.10 INSTRUMENTS

1.10.1 Demographic information

A standard demographic questionnaire was compiled to obtain information about participants’ age, sex, home language, highest qualification, relationship status and parents’ marital status. According to Maree and Pietersen (2007, p. 164), biographical questions are an essential component of a questionnaire as they, “determine the profile of the sample, to compare the sample to population characteristics to see if it is representative of the population, and to explore possible relationships between biographical variables and other variables in the study” (Refer to Annexure 1).

1.10.2 Family conflict scale (FCS)

Gottman (1993) was first to describe adaptive and maladaptive conflict resolution strategies between couples. Taking the 'marital spillover' hypothesis into account (Cummings et al. 2000) which will be discussed in Chapter Two, I will argue that families are likely to develop a prevalent conflict resolution style that young adults (as participants in the sample) would be able to describe retrospectively.

To measure family conflict style, a scale was developed[1] that included an initial item pool of 35 items (seven items for each of the five conflict styles measured). Items written included statements based on Gottman's (1993) description of adaptive (validator, volatile, avoider) conflict style, as well as maladaptive (hostile-engaged, hostile-detached) conflict style in couples. Items were based on an extensive review of the literature on conflict styles (Gottman & Silver, 1999; Gottman, 1993; Gottman, 1994; Gottman, 1998; Cummings et al. 2000; Weeks & Treat, 2001; Weingarten & Leas, 1987; Salkind, 2008).

The response scale is a six point Likert Scale ranging from Strongly Disagree (1) to Strongly Agree (6). As prescribed in the scale development literature (DeVellis, 2012), the initial item pool was subjected to theoretical scrutiny by a panel of experts that included Honours students, the author of the present study (Masters student) and the supervisor (established researcher). Items were adjusted to enhance clarity before they were piloted on a sample of young adults (18-25 years; N = 60). The pilot sample was similar to participants that will be selected for the main study in the present research. Based on reliability and item-analysis of the pilot data, six items were deleted from the initial pool of 35 items as they did not measure the constructs reliably.

The result was a briefer version of the Family Conflict Scale (FCS) consisting of 29 items. The Family Conflict Scale (FCS) that will be administered in the main study appears in Annexure 2.

1.10.3 Family commitment scale (FC)

The Family Commitment Scale (FC) was adapted from the Rusbult et al. (1998) scale to measure family commitment. The scale consists of four subscales, namely Commitment Level (7 items), Commitment Satisfaction (5 items), Commitment Quality of Alternatives (5 items) and

[1] Items were collaboratively written with the BEd Honours students (NOS 780).

Commitment Investment (5 items). The total scale consists of 22 items. The Family Commitment Scale (FC) is described fully in a related study by Human-Vogel (2013) and can be viewed in Annexure 3. The study resulted in the following constructs of commitment to the family once the scale was administered: Cohesion, Loyalty, Independence and Meaningfulness. The reliability of the Family Commitment Scale was found to be generally acceptable (refer to Human-Vogel, 2013).

1.11 DATA ANALYSIS

1.11.1 Data preparation

The analysis of the data will have to be considered by experienced and well prepared researchers as it is important to determine what statistical tests will be used (Cohen et al. 2007). I will prepare the data set for analysis by summarising and coding participants' responses on each question and then creating a spread sheet with all the variables in the study. The data will be analysed with SPSS (Statistical Programme for Social Sciences).

1.11.2 Descriptive statistical analysis

Descriptive statistical procedures will be used to describe the basic features of the data in the present study (Cohen et al. 2007). Descriptive statistics simply describe the characteristics of the sample and do not make any predictions or inferences (Trochim & Donnelly, 2006).

Descriptive statistics calculated in this study include measures of centrality such as the mean and medians, and variability such as standard deviation (Trochim & Donnelly, 2006). The scale properties of the Family Conflict Scale (FCS) will be investigated by examining items statistics (scale variance, item-total correlations and alpha coefficients). Factor analysis (maximum likelihood estimation) will be used to examine the factor structure of the Family Conflict scale to assess construct validity of the instrument (Cohen et al. 2007).

1.11.3 Inferential statistical analysis

Inferential statistics will be conducted as procedures to make inferences about the data collected (Trochim & Donnelly, 2006). The results can be generalised to the population from which the sample will be drawn, but generalisation across samples and contexts is not necessarily possible.

Inferential statistics in this present study are used to examine the hypotheses. The choice of statistical tests will be determined by the sample size and distributional properties of the data. In order to test first set of hypotheses (the independence of two subgroups in the sample for sex and relationship status) the Mann-Whitney U – Test will be used. The Mann-Whitney U – Test assess whether the two samples of independent observations are inclined to have larger values than the other or, alternatively, the same median (Fabrigar & Wegener, 2012). To test second set of hypotheses (subgroup differences in scale means for three or more groups), the Kruskal-Wallis H Test will be used. The Kruskal-Wallis H Test assesses whether samples are derived from the same distribution (Fabrigar & Wegener, 2012). This is a non-parametric measure and is used to compare two or more samples that are not related (Cohen et al. 2007). To test third set of hypotheses (the linear relationship between variables in the study) the Spearman rank order correlation coefficient (Rho) will be used to do a correlational analysis (Fabrigar & Wegener, 2012).

1.12 ETHICAL PROCEDURES

1.12.1 Moral decisions

Ethics refers to the study of principles which entails either right or wrong decisions made by individuals in terms of behaviours impacting the well-being of humans (Allan, 2009; Babbie, 2005; Creswell, 2003). I regard it as essential and inherent in the research procedure.

1.12.2 Key values

According to the codes of ethics for research (Allan, 2009) there are several key values that underpin the research process, such as social responsibility, justice, benevolence, respect for the individual, professionalism, and refraining from discrimination, abusing supervisory authority and sexual harassment.

Babbie (2005) adds that verbal and written consent needs to be obtained from the participants in a reasonably understandable language as well as ethical clearance (Annexure 5) before conducting any study. Research participants must have a clear understanding of the research they are partaking in, therefore ensuring *veracity* (Babbie, 2005). *Veracity* in this present study involves remaining truthful throughout the research process by engaging in accurate and open communication with the participants (Allan, 2009).

1.12.3 Informed consent

Informed consent refers to the process whereby participants may choose whether to participate in a study and generally includes a consideration of facts which could influence their decision (Cohen et al. 2007). In the present study, a respondent information document is attached to the questionnaire that provides the participants with formal information regarding the research (To see how informed consent was gained in the present study, please refer to Annexure 3).

1.12.4 Non-maleficence

A researcher should always ensure that no participant is harmed during the research process, psychologically or physically (Creswell, 2003). In the present study, attention to non-maleficence is evidenced as the participants are informed that some of the research questions may elicit emotional reactions.

A document will be handed to the participants who are also provided with information on the necessary courses of action to be taken, should the participants feel emotionally vulnerable after completion of the questionnaire.

1.12.5 Autonomy

Allan (2009) defines autonomy as the ability to function and perform independently without any influence from others. The autonomy of the participants is respected by encouraging voluntary participation. The study was designed to maximise choice, particularly because students are often regarded as a captive audience (Nieuwenshuis, 2007). Participants' *privacy* is respected in the anonymous nature of the study and *confidentiality* was ensured.

Jackson (2006) further emphasises the importance of ethical standards in research with human participants. When conducting research with participants, it is the researcher's responsibility to protect the participants from any harm thus ensuring that informed consent is obtained from the outset of the research process, safeguarding the participants' privacy and confidentiality, discussing the limits of confidentiality, disclosures, debriefing of participants, consultations with other professionals and reporting the research results (APA guidelines, 2002).

In the section to follow, I present an outline of the chapters in the present study.

1.13 CHAPTER OUTLINE

1.13.1 Chapter 1

In this chapter a discussion of the background and rational of the study is presented. Methodological applications, the research design, research questions and hypotheses are discussed, as well as an explanation on the different statistical analyses that were conducted.

1.13.2 Chapter 2

An in depth literature review on marital conflict styles and commitment to one's family of origin is presented. A contextual background of the family resilience framework (Walsh, 2003) and the marital spillover hypothesis (Gerard, Krishnakumar & Buehler, 2009) is also discussed in detail in order to understand how the construct marital conflict styles can also be viewed as a systemic variable influencing the entire family.

1.13.3 Chapter 3

In this chapter I will describe the criteria used for a quantitative study together with the process of scale development for the Family Conflict Scale (FCS). The pilot study will be discussed in depth and the research questions of the main study together with the results of the data analysis will be presented.

1.13.4 Chapter 4

The final chapter will provide a thorough discussion on the findings in the main study in accordance to the research questions. The contributions of the present study will be presented together with the limitations and the recommendations for future research.

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CHAPTER 2

Literature Review: Family Conflict and Commitment to the Family of Origin

2.1 INTRODUCTION

Family conflict can be viewed as an inevitable facet of everyday family life. In the present study I argue that conflict is evident in all families however, the way in which conflict is handled, as well as the relation that it has to the commitment to one's family, is the overarching argument in the present study. How marital couples handle conflict and its overall impact on children in the family will be discussed in the present chapter (Buehler & Gerard, 2001; Fincham, 2003; Noller et al. 2000; Gottman, 1993; Gerard et al. 2009).

Research has shown that a conflicted family environment is related to characteristics of adolescents' overall personal development and social interactions as well as having an effect on children's self esteem (Johnson, LaVoie, & Mahoney, 2001; Lian & Yusooff, 2009). A contextual background of the adaptive conflict framework (Walsh, 2003) and the marital spillover hypothesis (Gerard, et al. 2009) will also be discussed in detail to understand how the construct marital conflict style can also be viewed as a systemic variable influencing the entire family.

2.2 FAMILY RESILIENCE FRAMEWORK

According to Walsh (2003, p. 399) resilience is the, "ability to withstand and rebound from disruptive life challenges". Dolan (2008) agrees and further argues that resiliency can be described as a child, their family, or community coping better than anticipated given the state of circumstances in which they are faced with. It is important to highlight that the concept of resilience has shifted from an individual perspective to a systemic approach (Dolan, 2008). Initially, resilience scholars viewed an individual family member as a resource for individual resilience; currently many scholars regard resilience within a family as a whole unit rather than on an individual level. Thus, resilience can be seen as a relational process and not only an individual trait (Dolan, 2008). I argue that the focus is on the family system as the unit of analysis and intervention for understanding resilience. I further argue that research based on commitment and productive conflict management is also important from a family resilience

framework perspective. Therefore, the family resilience framework serves as the conceptual foundation guiding the present study.

The underlying notion in the systemic view of resilience is that any stressful event, such as conflict or challenges within the family, can affect the entire family rather than one individual family member (Walsh, 1998; McCubbin & McCubbin, 1988). A family system is defined as two or more individuals, also known as the family structure, and the relationship pattern between them, also referred to as family functioning (Patterson, 2002). Several processes characterize the family unit, such as cohesiveness, communication (affective and instrumental), flexibility and behavioural control (Patterson 2002). I argue that family functioning can be viewed as multidimensional and describing these family functioning processes is necessary to better understand how families remain resilient when faced with conflict.

Walsh (2002) identifies two perspectives within the family resilience framework which is grounded in family systems theory in order to view overall family functioning. The first one being the ecological perspective which stems from a biopsychosocial system orientation (Walsh, 2002) and maintains that conflict mirrors an interaction between individual, family and social contexts and unsuccessfully resolving conflict could lead to overall family distress (Walsh, 2003). The developmental perspective is the second viewpoint identified by Walsh (2003) which states that any life crises or challenges faced could possibly disrupt the functioning of the whole family system affecting all members as well as their personal relationships (Walsh, 2003). In retrospect, I argue that one learns coping and adaptation when dealing with challenges over a long period of time.

Walsh (2003) maintains that effective family processes are essential in dealing with conflict and adversity within a family unit. Three key processes of family resilience as identified by Walsh (2003) are presented in Figure 2.1 below:

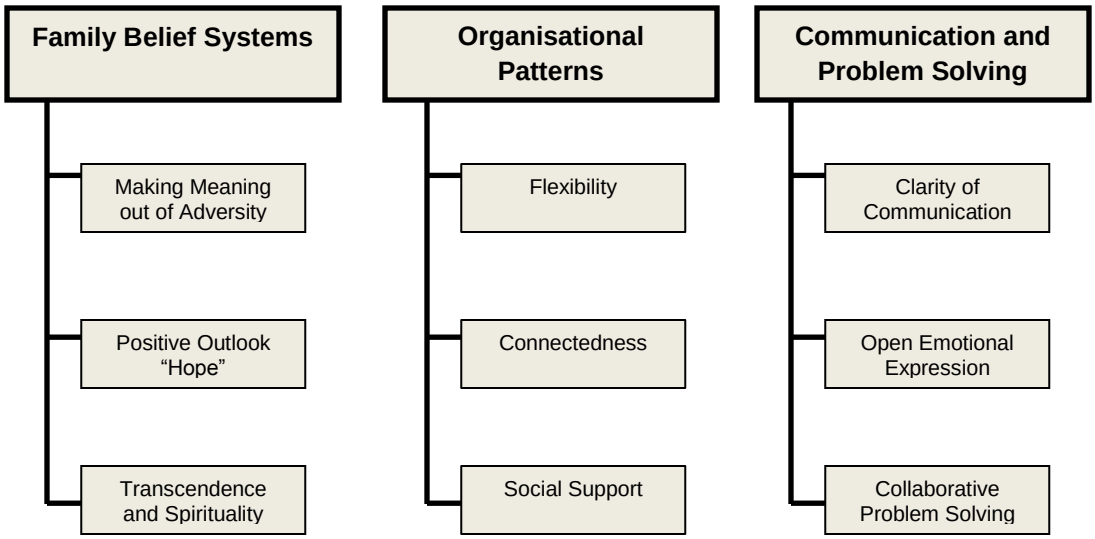

Figure 2.1: Key processes in family resilience

Family belief systems include aspects such as values, assumptions, attitudes, concerns and biases (Walsh, 2003). Family belief systems have an influential role in how families view crisis and suffering. When a family shares certain belief systems, it increases the options for conflict resolution, healing and growth and this in turn fosters resilience within a family (Walsh, 2003). Resilient families have the potential to normalise the conflict experienced and thus have the ability to make the conflict manageable and meaningful. In essence, I argue that resilience will strengthen the family unit when faced with conflict situations.

Walsh (2003) further explains that families need to organise themselves in diverse ways in order to meet the challenges (such as conflict) that they face. Family organisational patterns include features such as a flexible structure, cohesion and connectedness together with social and economic resources. These reported features strengthen resilience and enhance the family's ability to bounce back from a conflicted situation as Walsh (2003) states, "resilience is strengthened by mutual support, collaboration, and commitment to weather troubled times together" (p. 411). McCubbin and McCubbin (1988) further highlight the importance of continually reassessing connectedness and cohesion within a family as they argue that families may change over the course of a lifecycle which in turn could have an impact on how needs are met within the family unit. Therefore, I argue that commitment to one's family organisational patterns strengthens resilience which in turn will aid the family to overcome obstacles like conflict.

Clear communication is another aspect that Walsh (2003) identifies as essential to family resilience. According to Walsh (2003), "communication processes foster resilience by bringing clarity to a crisis situation, encouraging open emotional expression and fostering collaborative problem solving" (p. 413). Thus, families that are able to communicate effectively, share feelings with one another and engage in positive interactions are better able to brainstorm potential ways to approach a conflicting situation (Walsh, 1998).

Conceptually, family resilience emphasises a strength-oriented paradigm in order to understand how families demonstrate resilience when faced with a conflicting situation (Walsh, 2002). An underlying basic argument guiding this framework is that stressful events and constant challenges impact the whole family, therefore, the key processes mentioned above are vital in order for families to adapt to the conflicting situation and foster resilience (Walsh, 2003).

Silberberg (2001) further identified a Family Strengths Template founded on eight qualities, which are aspects identified as family strengths. These qualities are defined as togetherness, sharing activities, affection, support, acceptance, commitment, communication, and resilience (Silberberg, 2001). I argue that the qualities coincide with Walsh's *Key Processes in Resilience* mentioned above. Silberberg (2001) defines *togetherness* as glue that connects the family and emphasises a sense of belonging. Sharing the same values, beliefs and morals are essential aspects that hold a family together. Families that like to *share and do activities* together are categorised as an adaptive, strong family according to Silberberg (2001). *Affection* can be viewed as a strength when family members demonstrate love, care, concern and interest for each other. *Support* is looking out for one another, assisting, encouraging and reassuring each other (Silberberg, 2001). An adaptive family demonstrates *acceptance* by showing respect and appreciation and displaying an understanding of each other's individuality (Silberberg, 2001). *Commitment* is defined as "showing dedication and loyalty toward the family as a whole" (Silberberg, 2001, p. 54). Adaptive families are described as being committed in making the wellbeing and happiness of their family a first priority. Silberberg (2001) further defines an adaptive family as one that engages in open, positive and honest *communication.* The aforementioned qualities are included within the overall concept of family resilience. Adaptive families have the potential to adapt to circumstances and project a positive attitude towards the challenges they are faced with (Silberberg, 2001). These families deal with the challenges by sticking together, sharing activities, showing affection, demonstrating acceptance and loyalty towards one another, and talking things through.

Patterson (2002) further expanded on these qualities stating that families have additional functions they need to fulfill, such as family formation and membership, economic support, nurturance and socialization, and protection of vulnerable members on order to overcome obstacles such as conflict. The ways in which these family functions serve the needs of individual family members are summarised in Table 2.1 below:

TABLE 2.1: Family Outcomes and Functions (adapted from Patterson, 2002)

Family Functions	Benefits to Individual Family Members	Positive Family Outcomes	Negative Family Outcomes
Membership and Family Formation	• Provides a sense of belonging • Provides personal and social identity • Provides meaning and direction for life	• Commitment and maintenance of family unit • Addition of children is planned and desired	• Divorce
Economic Support	• Provides for basic needs of food, shelter, and clothing and other resources to enhance human development	• Adequate food and clothing • Safe housing	• Child neglect • Homelessness
Nurturance, education , and socialization	• Provides for physical, psychological, social, and spiritual development of children and adults • Instills social values and norms	• Family love and mutual support • Marital commitment and satisfaction • Securely attached children	• Domestic violence
Protection of vulnerable members	• Provides protective care and support for young, ill, disabled or otherwise vulnerable members	• Family care for child with special needs	• Elder abuse

When a family fulfils the function of membership and formation it provides the family members with a sense of belonging and identity. Family members feel as if their lives have meaning and direction (Patterson, 2002). Membership and formation within a family will enhance the members' commitment and maintenance of the family as a unit. Patterson (2002) further explains that failure to fulfil the function of family membership and family formation could lead to divorce. Economic support is another vital family function that necessitates providing for the

families basic needs of food, shelter, and clothing (Patterson, 2002). Families that fulfil the function provide their members with adequate food and clothing and safe housing. A negative outcome of the function if it is not fulfilled could lead to neglect and homelessness (Patterson, 2002). Nurturance, education, and socialisation is a family function that in turn provides for physical, psychological, social, and spiritual development of children and adults and imparts social values and norms (Patterson, 2002). The positive outcomes of fulfilling such a function (nurturance, education and socialisation) are love and mutual support, marital commitment and satisfaction and securely attached children. A negative outcome of not fulfilling the function could lead to domestic violence and a lack of attachment from the children (Patterson, 2002). Protecting vulnerable members is the last function that Patterson (2002) identifies. The family needs to provide protective care and support for the young, ill, or disabled. One way of understanding family resilience is whether the family has successfully fulfilled the above mentioned functions so that individual family members benefit and overcome obstacles (McCubbin & McCubbin, 1988).

Patterson (2002) further questions whether a family needs to be competent in all four of the functions in order to be seen as resilient. In order to decide which family functions are relevant to be deemed as a competent family depends on the population that is being studied (Patterson, 2002). Patterson (2002) provides an example of competence in fulfilling the family functions as the ability to remain committed in maintaining an integral family unit. Thus, I argue that family functions should be managed in a way that benefits all family members, and provides the kind of environment and relational framework that can enhance resilience responses in family members. Based on the preceding argument on what fosters resiliency, Figure 2.2 draws all the concepts together:

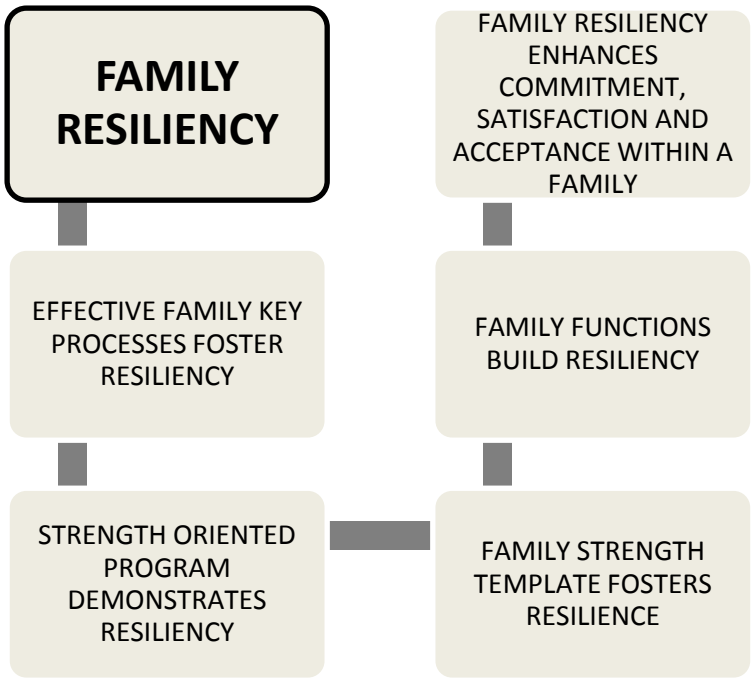

Figure 2.2: Concepts relating to family resilience

McCubbin and McCubbin (1988) elaborated on resilience as functional competencies as well as behavioural patterns that overall help the families cope with crises and conflicting situations. Conflicting situations can therefore be viewed according to the family resilience model as the way in which families deal with the crisis. Similar to the above mentioned theories, McCubbin and McCubbin (1988) had previously emphasised that families may even thrive in the face of adversity and conflict, depending on how the conflict is dealt with. This will be discussed further in the next section.

2.3 FAMILY CONFLICT

2.3.1 Conflict within the marital dyad

Families will inevitably experience conflict, particularly the individuals who form the marital dyad (Gottman & Silver, 1999). Studies of couple conflict have demonstrated that conflict is not necessarily detrimental to a relationship, and that some conflict may even be beneficial depending on how it is managed (Gottman, 1994). Managed successfully, it enables couples to communicate, resolve differences, and understand each other better (Anderson, Anderson, Palmer, Mutchler & Baker, 2011). Furthermore, it is essential to acknowledge that a marital dyad significantly influences the whole system and certain aspects such as the life stage of the family, the developmental stages of the family members, and individual personalities (Walsh,

2003) further influence the system. However, the fundamental premise of the present study, given the marital spillover hypothesis (discussed in the next section 2.3.4), is that the conflict style which the marital dyad adopts will in turn affect the overall style that the family adopts in dealing with conflict.

It is of utmost importance to understand the varying degrees of conflict styles, particularly adaptive and "normal" as opposed to maladaptive and "abnormal" conflict styles. Cummings et al. (2000) view conflict as being both normal and abnormal. Conflict is inevitable in any marriage which makes the notion of marital conflict "normal". On the other hand, marital conflict can be seen as "abnormal" in the sense that it has a negative effect on the marriage itself, it can be seen as a main source of emotional strain and the children within the family unit are negatively affected. Weeks and Treat (2001) further distinguish couple conflict as either low, medium or high. Low-level conflict is described as 'issue-focused' as the couples are able to negotiate a solution to the conflict and remain psychologically differentiated from the issue at hand. Medium-level conflict is defined as "patterns of relating that are often carried over from each of the partner's family-of-origin experiences" (Anderson et al. 2011, p. 13). In medium-level conflict, couples engage in blaming and reactivity. When couples display an inability to take responsibility for their role in the conflict, exhibit low differentiation, as well as engage in high levels of blaming, abuse, and emotional reactivity they are displaying high-level conflict (Weeks & Treat, 2001).

Similarly, past research conducted by Weingarten and Leas (1987) typology of couple conflict distinguishes between five levels of interpersonal conflict as seen in Figure 2.3 below:

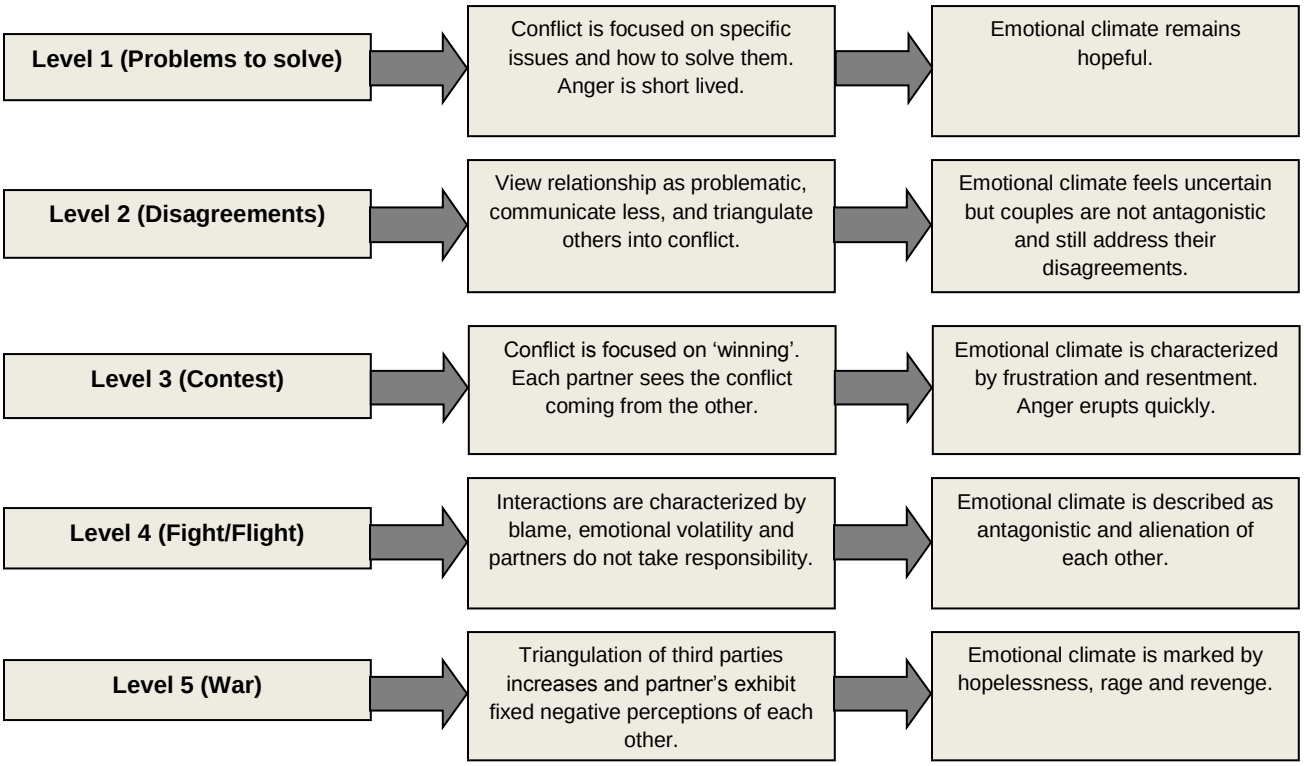

Figure 2.3: Weingarten and Leas (1987) typology

Weingarten and Leas (1987) Level One category is similar to Weeks and Treat's (2001) definition of low-level conflict. The conflict in both categories focuses on specific issues within the relationship and resolution strategies. Similarly, Level Four and Level Five described by Weingarten and Leas (1987) are similar to Weak and Treat's (2001) high-level conflict category. Couples in these categories engage in high conflict which is marked by extreme blame and emotional volatility. These authors however, do not take into account that conflict need not only be maladaptive but can also be adaptive. To study the way conflict can be handled relationally, Gottman's widespread research on couples identified certain conflict styles which will be extensively reviewed. Gottman's research offers a conceptualisation of conflict being both adaptive and maladaptive.

Gottman (1993) identifies three adaptive conflict styles which lead to successful marital outcomes as volatile, validating and avoidant. Maladaptive couples, namely Hostile-Engaged and Hostile-Detached are likely to use negative interaction patterns. The maladaptive couples fail to maintain a healthy balance between positive and negative interactions and over time the negative interactions such as conflict engagement, stubbornness and withdrawal, begin to

outweigh the positive relations (Gottman, 1994). The conflict styles as depicted in Figure 2.4 below will be discussed in depth next.

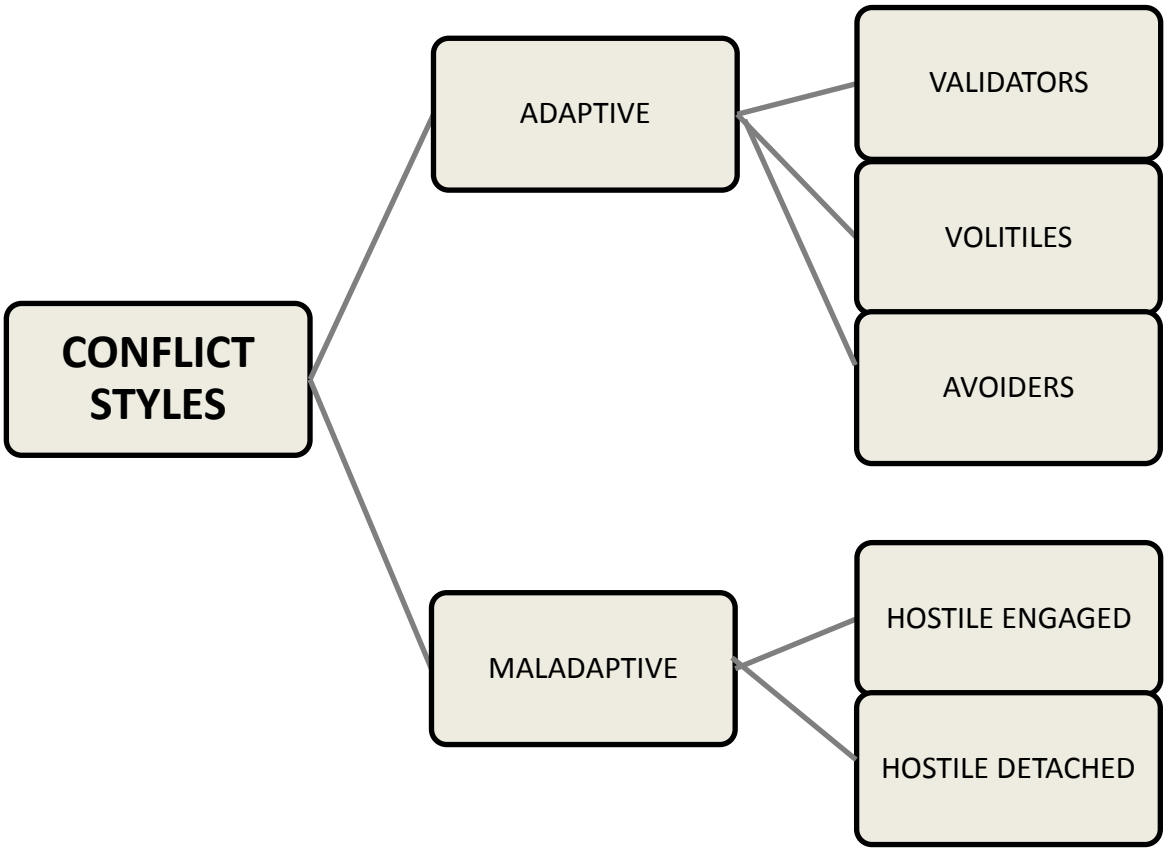

Figure 2.4: Gottman's conflict styles

2.3.2 Adaptive conflict styles

2.3.2.1 Overview

Couples presenting with more positive than negative communication behaviours are described by Gottman (1993) as adaptive. Adaptive couples are at ease with their choices made when having to manage the presenting conflict. The above description of adaptive couples can be compared to Salkind's (2008) explanation as he describes conflict as functional when both parties agree and are content with the process they followed in managing the conflict as well as the end solution that was reached.

2.3.2.2 Volatile style

The volatile conflict style engage in relationships that is high in emotion. An explosive form of relationship is prominent when dealing with conflict (Gottman, 1993). This conflict style is highly involved in the argument at hand and perceives each view points as equal. Individuality is highlighted in this conflict style and marriage is a unity that strengthens this aspect. Honesty is maintained throughout the relationship and both positive and negative emotions are expressed with vigor (Gottman, 1993). There is an overall warm and loving atmosphere that is maintained throughout the relationship despite the heated and explosive arguments (Gottman, 1993). This style tends to express disagreements through eruptions yet the marital relationship remains compassionate and warm. In essence, the strong negative feelings are outweighed by positive emotions and high relationship satisfaction is experienced (Gottman, 1993).

2.3.2.3 Validator style

Gottman (1993) defines the next conflict style, the validator style, as 'talking out their problems'. Even in the heat of an argument, each other's opinions and emotions are taken into consideration. The couples view each other as a unit and even tend to emphasize 'we' rather than 'I' (Gottman, 1993). The validator style inclines to remain calm and at ease even in the most heated arguments. According to Gottman (1998), "the presence of mutual respect eliminates numerous problems that can afflict a relationship" (p. 12). Cann et al. (2008) further states that individuals who adopt a validating style tend to highly value each other and thus view their relationship as satisfying.

2.3.2.4 Avoidant style

The third conflict style that Gottman (1993) defines is that of the avoiders. According to Cann et al. (2008), "avoiders reaffirm the love and happiness they have in a marriage and agree that those positives overwhelm the majority of issues they do not see eye to eye on" (p.13). This type of conflict minimizes the problems and therefore avoids conflict. Problems that arise in the relationship are completely ignored and only the positive aspects in the relationship are accentuated and highlighted (Cann et al. 2008). When faced with a situation where the problem cannot be ignored, a 'agree to disagree' attitude is adopted which in turn does not solve the problem at hand but rather pushes it aside (Gottman, 1993).

The conflict styles mentioned above are adaptive in that they maintain a more stable and satisfying relationship. Cann et al. (2008) states that adaptive conflict styles use more positive

communication behaviours than negative. Gottman (1998) has consistently found that adopting these adaptive styles, relationships are more likely to remain stable and prosperous. Adaptive conflict styles described by Gottman supports the findings of other researchers who found that low-level conflict tends to be issue focused (Weeks & Treat, 2001; Weingarten & Leas, 1987). Couples tend to focus on the issues at hand rather than the partner themselves. Partners find a way to negotiate and solve their problems (Anderson et al. 2011).

2.3.3 Maladaptive conflict styles

2.3.3.1 Overview

Individuals who mainly engage in negative and hostile arguments were grouped by Gottman (1993) as maladaptive. Gottman (1994) further explains that the negative behaviours are not necessarily problematic. However, what is regarded as challenging is the cycle of negativity that the behaviour creates. The cycle of negativity will often lead to a breakdown in communication thus far outweighing the positive interaction needed for a balanced relationship (Gottman, 1994).

2.3.3.2 Hostile-engaged style

The hostile-engaged conflict style engages in direct conflict when it arises. A defensive characteristic and the use of personal criticism to the point of destruction are key elements defining the style. Comments such as ‘you always do this’ are used in this conflict style – which in turn is an attack on the others personal behaviour and character (Gottman, 1993).

2.3.3.3 Hostile-detached style

The second maladaptive conflict style identified by Gottman (1993) is the hostile-detached style. There is an emotional detachment from each other as well as a lack of involvement in each other’s lives. This behaviour is perceived as negative and can become extremely destructive (Gottman, 1993).

Gottman (1993) states that marriages that adopt hostile conflict styles could end in separation, divorce or even an unhappy, unsatisfied, lonely life together. Adopting a maladaptive conflict style will in turn highlight behaviors representing what Cann et al. (2008) calls “the Four Horsemen of the Apocalypse when cascading towards dissolution” (p14). The destructive behaviors are, criticism – being the least sabotaging, contempt, defensiveness and stonewalling – being the most disastrous.

Overall, based on the preceding discussion, I argue the way conflict is handled between couples (adaptive or maladaptive as described above) can be viewed according to the marital spillover hypothesis and the family resilience framework, not only as a dyadic construct, but as a family level construct as well. A crucial assumption that frames the present study is that by knowing something about parental conflict styles, insight is gained into how conflict is handled in the family in general. In essence, it is essential to understand how a family deals with conflict. The marital spillover hypothesis, discussed next, makes this possible.

2.3.4 Marital spillover hypothesis

My focus on understanding how the marital conflict style construct can also be viewed as a systemic variable influencing the entire family rests on the theoretical notion of the spillover hypothesis. Gerard et al. (2009), define the spillover hypothesis as the idea that "behaviour generated in one relational setting transfer to other relationships" (p. 953). The hypothesis focuses on the notion that marital hostility and conflict may be transferred to the entire family unit. The transfer of anger and tension influences the overall parent-child interaction and it can influence the way conflict is handled in the family as a unit. Similarly, I argue that adaptive conflict resolution strategies that a family adopts can be an important source that fosters resilience which would in turn improve the family's communication, commitment, satisfaction and problem solving skills.

I argue that a conflicted environment within a marital sub-system can be transferred and have an effect on the entire family. Cummings et al. (2000), argue that children's development within their family of origin can be influenced by interparental relations. Numerous studies have indicated that marital conflict and adversity is associated with children's overall development and adjustment (Buehler & Gerard, 2001; Fincham, 2003; Gerard et al. 2009; Simon & Furman, 2010). According to Walsh (2002), I argue that adversity within a family can be seen as an interplay of risk and protective factors that either build resiliency among family members or places them at risk. Fraser and Richman (1999) define demands and risks as factors that increase or influence the likelihood of the onset of a negative outcome or stress following adverse events. Risk factors can be regarded as and include life events such as poverty, natural disasters, child abuse, chronic illness, and family conflict (Fraser & Richman, 1999). Protective factors on the other hand can be viewed as specific attributes or situations that enable resiliency to occur (Walsh, 2002). Protective factors can be regarded as individual characteristics such as

one's personality and temperament, however I argue that protective factors stem from helpful family patterns and accessibility to external support (Fraser & Richman, 1999).

Benzies and Mychasiuk (2009) conducted extensive research and identified nine protective factors (locus of control; emotional regulation; belief systems; self-efficacy; effective coping skills; education, skills and training; health; temperament, and gender) that could safeguard children and others at risk from the negative impact of adversity such as family conflict. Based on the above argument, the marital spillover hypothesis can therefore be viewed from a systemic perspective highlighting the importance of viewing the dynamics within the whole family unit (Gerard et al. 2009). My focus on understanding how the construct marital conflict styles and adversity can also be viewed as a spillover hypothesis influencing the entire family thus rests on the theoretical notion of the systemic variable.

According to Visser (2007), a system is made up of different parts that interact with one another and are interrelated. Any changes that may occur in the system and the interaction between the various parts affect the whole system (Visser, 2007). It is of utmost importance to understand an individual within their context and in relation to the other parts within their system. Therefore, I argue that the way in which couples resolve conflict can be projected onto the whole family system and could in turn have an effect on the family as a unit. Hawley (2000), argues that "families with a strong sense of coherence, a general belief that adverse circumstances will eventually work out in a favourable way, are able to most withstand the effects of adversity and may even thrive under difficult circumstances" (p. 103). It is important to highlight that family coherence has the potential to strengthen family resilience when faced with conflict situations (Walsh, 2003). Thus, I argue that conflict within a family can be thought of as productive and contributing to resilience within the family.

It should however be noted that considering adaptive and maladaptive conflict styles, and acknowledging family conflict need not be a risk factor only. The conceptualisation of adaptive and maladaptive conflict styles is rooted in the acknowledgement that family resilience is about clarity of communication, problem solving and open expression (Walsh, 2003). It therefore accommodates the possibility that certain types of conflict could potentially support resilience in its members. Assuming that connectedness and support in the family is associated with commitment to the family, the family resilience framework provides the assumptions for exploring the relationship between conflict style and commitment (discussed in section 2.5).

Throughout the discussion of conflict styles of couples, it is important to keep in mind that the marital subsystem influences other subsystems in the family such as the sibling subsystem (Visser, 2007). An essential assumption framing this discussion is the recognition that the couple's conflict style can set the tone for how conflict is generally handled in the family.

2.3.5 Conflict within the family system

It has become evident that there is a gap in research on how conflict can be viewed as a family variable as opposed to a dyadic construct between marital couples. I argue that conflict between marital subsystems overall impacts the family as a whole. An underlying argument guiding the present study is that any stressful event or challenge may impact the whole family. Therefore, it is essential to view conflict as a family construct and not only a marital construct.

Differentiating between the entire family system and a marital subsystem within a family can be compared to Jaycox and Repetti's (1993) description of, "common and individual social environments" (p. 354). The focal point in the present study is the common social environment as it relates to the family members and the social climate that is shared amongst them. Jaycox and Repetti (1993) highlight that in a family environment, the way in which couples' manage in conflict is important as it will have an impact on the general family atmosphere. Multiple studies have illustrated how marital conflict can have a direct effect on the functioning of their children as well as other sub-systems (Jaycox & Repetti, 1993; Tuval-Mashiach & Shulman, 2006; Hartup, 1992). However, a hostile family atmosphere has a greater impact than that of a hostile interaction between marital sub-systems (Jaycox & Repetti, 1993). Possible reasons for this may be firstly attributed to children not being able to 'escape' the hostile atmosphere and secondly, being exposed to open forms of expressions of conflict may influence the children as they may become actively involved in the disputes, thus increasing the hostile environment (Jaycox & Repetti, 1993).

In the present study, I argue that marital relationships and parent-child relationships are linked to each other. Marital conflict as mentioned in the section above has emerged as particularly significant with regards to its effects on parent-child relationships (Cummings et al. 2000). There are different ways in which conflict can be studied; the research underpinning the present study guides the argument that conflict does not always have to have a negative association to family life. The way in which conflict is resolved plays a far more important role than conflict merely being present in itself. Hartup (1992), states that although conflict may negatively influence a

relationship, it may also provide an opportunity to improve communication, strengthen interpersonal relationships and define roles. This in turn affects the overall commitment in the family unit. Cummings et al. (2000) conducted extensive research on marital conflict and their findings indicated that it is not whether parents fight but rather how they fight that impact the parent-child relationship. Moreover, Tuval-Mashiach and Shulman (2006) state that, "the mere presence of conflict, therefore, reveals less about the quality of relationship that does the way in which the conflict is handled" (p. 562). The way in which the family unit resolve and deal with conflicting situations is of more importance to the present study in order to understand commitment within one's family of origin. Commitment will be discussed next.

2.4 COMMITMENT

2.4.1 Interpersonal commitment

Commitment has long been recognised as an essential factor in the development and stability of personal and close relationships (Adams & Jones, 1997). Commitment to one's family *per se* is a complex construct and very little research is directed to this topic. Most research predominantly focuses on commitment between couples as opposed to family commitment (interpersonal), as well as commitment within organisational settings (Johnson, 1973; Rusbult, 1980; Graves, Ohlott & Ruderman, 2007). Put differently, Rusbult et al. (1998) define commitment as the objective to persist in a relationship. Etcheverry and Le (2005) expand the definition by stating that commitment is a long term orientation towards a relationship, a psychological attachment, feeling of loyalty and devotion, as well as a perceived obligation towards the relationship. Furthermore, commitment is also associated with accommodating responses to conflict and a willingness to sacrifice in a relationship (Etcheverry & Le, 2005). Accommodation involves "acting in the best interests of the dyad even during times of conflict, helping to maintain the relationship" (Etcheverry & Le, 2005, p104) and a willingness to sacrifice refers to compromising one's own interests for the betterment of the relationship as a whole. These processes are supported within the family resilience framework as family resilience is about clarity of communication, problem solving and open expression. The purpose of this research, therefore, is to better understand commitment to one's family (interpersonal commitment) and to assess whether adversity, such as family conflict, affects one's commitment.

As early as the 1970's research was conducted to better understand commitment between couples and a model was developed that distinguished between personal, moral and structural

commitment (Johnson, 1973). Personal commitment can be defined as one wanting to stay in a relationship, whereas moral commitment refers to feeling a sense of obligation to stay in a relationship, and structural commitment is constraints and stressors that in a sense force partners to stay together (Johnson, 1973). Furthermore, Carl Rusbult (1998) extensively studied commitment and developed the Investment Model of Commitment. The model conceptualises commitment as consisting of four constructs, namely commitment level and three bases of dependence – Satisfaction Level, Quality of Alternatives, and Investment Size (Rusbult et al. 1998).

A central assumption in the Investment Model is that interpersonal commitment develops when dependence on a relationship develops. Experiencing the family as a source of satisfaction would also be relevant to wanting to maintain ties and a sense of connectedness with one's family. The Investment Model Scale (Rusbult et al. 1998) was formulated to measure commitment level, satisfaction level, and quality of alternatives as well as investment size within couple relationships. Given the published research that supports the robustness of the model for interpersonal situations, it was considered it to be an appropriate model for extending commitment research to studying commitment in families. Research was conducted in 2009 for the NOS research module in order to measure commitment level towards the family using the same three constructs of Satisfaction Level, Quality of Alternatives as well as Investment level[2]. The Investment model was adapted to study commitment in a family context. The factor analysis in the study resulted in the following constructs: Cohesion, Loyalty, Independence and Meaningfulness. In a similar study recently authored by Human-Vogel (2013), commitment is studied within the South African context and describes commitment in two broad contexts, the academic and the family (interpersonal) context. Findings emphasised the importance of meaningful identification within the family to ensure commitment.

2.4.2 Impact of family conflict styles on commitment to the family of origin

Weigel, Bennet and Ballard-Reisch (2003) studied family influences on commitment. Their overarching argument rested on the notion that people are exposed to different experiences in their family of origin. Some were raised in relatively stable homes while others experienced volatile conflict, chronic hardships and marital dissolution and divorce. I argue that it is through these experiences that people develop a strong commitment to their family. Adams and Jones (2007) further elaborate that commitment is a vital factor in the continued growth and constancy

[2] The findings of the scale can be read in a related study conducted by Human-Vogel (2013).

of individual relationships. People gain an understanding and learn how they should treat other individuals, and what is considered 'normal' in personal relationships through their family of origin experiences (Weigel et al. 2003). Similarly, I argue that it is in the family of origin that people learn love, respect, honesty, cohesion, communication, and affection, or a lack thereof.

Connectedness and cohesion can be viewed as some of the constructs related to family commitment and thus it could be measured directly or indirectly by the extent to which family members experience connectedness and cohesion with the family of origin (Weigel et al. 2003). However, it should also be noted that commitment has been assumed to be related to issues of managing independence and loyalty towards the family of origin (Weigel et al. 2003). Thus, it can be hypothesised that quality of alternatives is relevant to family members' experiences of balancing loyalty and independence. In other words, maintaining important ties to the family but also pursuing their own lives. Gottman's (1993) studies of conflict patterns in couples, is pertinent to this study as it indicates which conflicts produce adaptive and maladaptive outcomes. I argue that the outcome will influence one's commitment to their family of origin. Noller et al. (2000) clearly emphasise that conflict is a constant feature of family life that can either have positive or negative effects. How the conflict it is expressed and whether it is effectively resolved or not affects a family and its members. Thus, I acknowledge that conflict within a family is inevitable, and argue that commitment to the family can still be possible given more adaptive conflict styles within the family. Furthermore, Powell (2009) argues that commitment within a family is possible depending on how dedicated they are to work through conflict situations. Thus, I argue that the quality of the relationship may be enhanced when commitment is present in a relationship.

2.5 SUMMARY

The present chapter provides a literature review of the constructs under investigation (conflict style and family commitment). Overall, I argue that conflict is an inevitable facet of everyday life within one's family, however, the way in which the conflict is handled is of importance to the present study. I further argue that the family resilience framework and the marital spillover hypothesis serve as conceptual foundations guiding the present study in order to better understand family conflict and its relation to commitment to one's family of origin.

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CHAPTER 3
Scale Development and Results

3.1 INTRODUCTION

Research can be described as a controlled investigation that incorporates acceptable scientific methodology to solve problems and find answers to questions (Cohen et al. 2007). One should bear in mind that there is no singular method for planning research, which is why researchers must present a plan or blueprint of how they want to conduct their research. The blueprint is called a research design (Cohen et al. 2007).

According to Myburgh and Van Der Linde (2001), scientific research depends on the decisions made during a research process. In this regard, "the researcher is almost 'funnelled' in the research process through specific decisions he / she makes on the research road" (Myburgh & Van Der Linde, 2001, p. 408). The overall problem under study, the research question as well as the aim of the research will determine what research strategy the researcher will use (Myburgh & Van Der Linde, 2001).

In Chapter Two, I argued that a theoretical relationship exists between family conflict style and commitment to the family of origin. In the present chapter, I present how the relationship can be studied quantitatively. Quantitative research will enable me to answer my research question which will be presented later in the chapter. I begin by describing the criteria used in a quantitative study, the process of scale development of the Family Conflict Scale (FCS) and how the items were piloted will then be discussed. Finally, I will present my research questions of the main study and the results of the data analysis. In this regard, the statistical findings will be presented in this chapter and furthermore be linked to the discussion thereof.

3.2 QUANTITATIVE QUALITY CRITERIA

3.2.1 Reliability

The reliability of a study refers to the consistency or stability of a measure and can be described as having the confidence that all the items that make up the measure are consistent with each other (Fabrigar & Wegener, 2012). In the present study, reliability of the scales was examined by means of the Cronbach Alpha (α) indicator of internal consistency.

Fabrigar and Wegener (2012) state that internal consistency of a scale measures whether several items, that proposes to measure the same broad construct, produce similar results. According to recommendations in the literature (Fabrigar & Wegener, 2012), internal consistency ranges between zero and one. A commonly used rule of thumb for internal consistency is described in Table 3.1 below:

TABLE 3.1: Internal consistency (Fabrigar & Wegener, 2012)

Cronbach's Alpha	Internal Consistency
$\alpha \geq .9$	Excellent
$.9 > \alpha \geq .8$	Good
$.8 > \alpha \geq .7$	Acceptable
$.7 > \alpha \geq .6$	Questionable
$.6 > \alpha \geq .5$	Poor
$.5 > \alpha$	Unacceptable

The questionnaire that was used to collect data in the present study included two scales, namely the Family Conflict Style Scale (FCS) and the Family Commitment Scale (FC). The Family Commitment Scale (FC) is an adaptation of the Rusbult's Investment Model Commitment scale, which has been reported to provide reliable data in the following studies (Rusbult, Martz, & Agnew, 1999; Impett, Beals & Peplau, 2001). Alpha's for the Rusbult scale typically ranged from .92 to .95 for Commitment Level, .92 to .95 for Satisfaction Level, .82 to .88 for Quality of Alternatives, and .82 to .84 for Investment Size. Thus, indicating good reliability overall. The adaptation of the Family Commitment Scale (FC), resulted in the following alpha's *Cohesion* (0.88), *Independence* (0.87), *Loyalty* (0.86), *Meaningfulness* (0.74) and *Commitment Level* (0.71), further findings are described in a study presented by Human-Vogel (2013).

The Family Conflict Scale (FCS) is a new scale that was constructed for the purpose of the present study in order to examine conflict styles within a family and to examine the correlations to ascertain whether family conflict style could be associated with commitment (scale development is discussed in section 3.3). The piloting of the Family Conflict Scale (FCS), including an examination of reliability will be discussed in section 3.4. Furthermore, the reliability and findings of the main study will be reported in section 3.5.

3.2.2 Validity

Kaplan and Saccuzzo (2012) define validity as "the agreement between a test score or measure and the quality it is believed to measure" (p. 135). Thus, validity for this study emphasises what

the scale measures and how well it does so. In this chapter I examine the new Family Conflict Scale (FCS) and the meaning of its constructs by correlating them with other constructs. In order to do this construct-related validity was measured. Theoretical relationships were examined among the study variables to gather evidence that would support the meaning of the constructs being measured (Kaplan & Saccuzzo, 2012). Construct validity refers to the extent to which an instrument measures a construct validly (Cohen et al. (2007).

Convergent and discriminant validity of the scales were considered to help establish construct-related validity (Kaplan & Saccuzzo, 2007)**.** According to Cohen et al (2007), convergent techniques imply that a high inter-correlation can be achieved by using diverse methods for researching the same construct, this type of validity is more appropriate when one is not necessarily interested in predicting a criterion. Kaplan and Sacuzzo (2009, p. 150) further states that “because there is no well-defined criterion in construct-related validity, the meaning of the test comes to be defined by the variables it can be shown to be associated with”. Thus, construct-related evidence for the validity of the findings is gathered over many different studies in different contexts using different samples. It is impractical to expect that one study will provide all the evidence one needs to ‘prove’ construct related validity. Discriminant techniques imply the use of similar methods for researching different constructs thus highlighting that the construct in question is different from potentially similar constructs.

3.3 SCALE DEVELOPMENT

3.3.1 Defining the constructs: Family Conflict Style (FCS) questionnaire

Scale development requires a proper operationalisation of the theoretical construct to be measured (DeVellis, 2012). This can be accomplished by means of a tangible conceptual framework and thorough review of the literature, the literature review relied on the work of John Gottman, as discussed in depth in Chapter Two. A thorough literature review of Gottman’s adaptive (validator, volatile, avoider) and maladaptive (hostile-engaged, hostile-detached) conflict styles preceded the item-writing phase (Table 3.2).

TABLE 3.2: Theoretical constructs

Conflict Styles	Definition
Validating Conflict Style	• Problems are talked through and they remain calm and at ease even in the most heated arguments (Gottman, 1993); • Display acceptance and openness to one's partner's views and feelings that communicates respect, even if they disagree (Cann et al. 2008); • Reframing each other's words during arguments (Cann et al. 2008); • Despite the argument, the other person's feelings and thoughts are important (Gottman, 1994).
Volatile Conflict Style	• Highly involved in the argument at hand and views each other as equals (Gottman, 1994); • They tend to have a more explosive form of relationship when dealing with conflict (Gottman, 1993); • High levels of both positive and negative emotion characterise volatile marriages, and partners are expressive and involved (Gottman, 1993).
Avoidant Conflict Style	• Minimizes the problem and therefore avoids conflict (Gottman, 1993); • They tend to completely ignore the problem that arise and accentuate only the positive aspects (Gottman, 1994); • They value working problems out on their own, and that problems would work themselves out without excessive discussions (Gottman, 1993); • Do not focus on accepting each other's differences, because they view their commonalities and shared values as far more important. Thus, they agree to disagree, and agree that their love and happiness overpower their differences (Cann et al. 2008).
Hostile-Engaged Conflict Style	• Engage in direct conflict when it arises (Gottman, 1994); • They display defensive characteristics and use personal criticism to the point of destruction (Gottman, 1993); • Personally attack each other's actions and personalities (Cann et al. 2008); • Involves physical and/or verbal hostile behaviours and feelings that reflect negative connections (Buehler et al., 1998).
Hostile-Detached Conflict Style	• Displays an emotional detachment as well as a lack of involvement in each other's lives (Gottman, 1994); • Behaviour is perceived as negative and can become destructive at times (Gottman, 1993); • Disconnected and emotionally distant from each other" (Cann et al. 2008); • Short periods of mutual attack and defence, often about insignificant matters (Gottman, 1993).

The conflict styles were defined in the literature as pertaining to a couple. To adapt the dyadic conflict styles to reflect conflict style as a systemic variable (see Chapter Two), items were reformulated to refer to the way the family (as a unit) deals with conflict generally in the home. The constructs were operationalised to be clear, concise, and readable and attempted to reflect the overall purpose of the scale, as recommended by DeVellis, (2012). The initial item pool reflected seven items for each of the five conflict styles identified in the literature review. The theoretical constructs presented in Table 3.2 were used to generate the initial pool of items (see

Table 3.3 below). These items were developed to reflect the meaning of each construct with as minimal overlap as possible.

3.3.2 Writing the item pool

The next step in scale development as recommended by DeVellis (2012) was to create a pool of items that clearly represented the construct of interest. An initial pool of items was generated by a team of three student-researchers in Educational Psychology to reflect the theoretical construct under study. Items that were written included strategies associated with Gottman's (1993) description of adaptive (validator, volatile, avoider) strategies, as well as maladaptive (hostile-engaged, hostile-detached) strategies. Next, a panel of professionals, all of whom have a theoretical background in family counseling processes as it relates to the present study, reviewed the item pool as recommended by DeVellis (2012). The panel consisted of the researcher (present study), two co-researchers (Honour students in Educational Psychology) and the supervisor of the present study. Through review and discussion, consensus was reached on an initial item pool of seven items for each of the five conflict styles identified in the literature review, coming to a total of 35 items. The initial item pool appears in Table 3.3 below.

TABLE 3.3: Initial item pool

Adaptive: Validating
In my family we...
...accept someone else's point of view, even when we don't agree (Val_3).
...talk through differences respectfully (Val_1).
...discuss matters calmly and listen to each other (Val_23).
...we show understanding for each other even when we disagree (Val_18).
...understand each other better after an argument than before (Val_11).
...try to find a compromise that suits all of us (Val_24).
...listen to each other's points of view during an argument (Val_29).
Adaptive: Volatile
In my family we...
...we value arguing as a way of resolving issues (Vo_5).
...we love each other even though we have strong arguments (Vo_9).
…believe in openly discussing issues in order to resolve them (Vo_13).
...try hard to persuade each other of our own point of view (Vo_17).
...can still joke even when we are arguing (Vo_31).
...express our differences loudly (Vo_32).
...are comfortable with having heated arguments (Vo_34).
Adaptive: Avoidant
In my family we...
…prefer to avoid disagreements because we don't want to upset each other (Av_7).
...rather agree to disagree than having to argue over something (Av_15).
...view conflict as a waste of family time (Av_22).
...try to ignore our differences and focus on what keeps us together (Av_25).
...focus on the positive rather than having disagreements (Av_26).
...focus on what we have in common and let our differences sort themselves out (Av_28).

...believe differences will resolve themselves over time (Av_33).
Maladaptive: Hostile-engaged
In my family we... ...attack each other personally in an argument (He_2). ...try to inflict pain on each other during arguments (He_4). ...are aggressive (verbally/physically) during disagreements (He_10). ...show contempt for each other during arguments (He_12). ...disrespect and insult each other when disagreeing (He_14). ...criticise or blame each other during disagreements (He_16). ...have to continually defend ourselves strongly in arguments (He_20).
Maladaptive: Hostile-detached
In my family we... ...largely ignore each other except for occasional attacks (Hd_6). ...are emotionally uninvolved with each other (Hd_8). ...can't stand each other so we prefer to avoid each other (Hd_19). ...prefer not to be involved in each other's lives (Hd_21). ....ignore each other during times of conflict (Hd_27). ...never really address the contempt we feel for each other (Hd_30). …try to hurt people by ignoring what is important to them (Hd_35).

The next step in scale development was to pilot the items. The process of scale development is described next in section 3.4.

3.4 PILOT STUDY

3.4.1 Piloting the items

DeVellis (2012) recommend administering the initial item pool to a development sample and evaluating the items through means of item analysis and factor analysis in order to optimise the final scale length. In addition, Johanson and Brooks (2009) recommend a minimum sample size of 30 for initial scale development. The scale was piloted on a relatively small sample of adults (n = 60; 18 -25 years; male = 30; female = 30). Care was taken to ensure that the participants in the pilot study had the same characteristics in terms of age and education level as in the main study (see section 3.5).

Item analysis (discussed below) was used to assess the internal consistency of the initial item pool for the Family Conflict Scale (FCS) by means of the Cronbach's alpha coefficient (α). According to Worthington and Whittaker (2006), "most researchers use some guideline for a lower limit on item factor loadings and cross-loadings to determine whether to retain or delete items, for example, researchers should delete items with factor loadings less than .32" (p. 824). During item analysis, the criterium for deletion was set at an alpha of <.30 as recommended in the literature (Worthington & Whittaker, 2006). Factor analyses were not conducted in the pilot

study, mainly because of the limitations related to the small sample size (Worthington & Whittaker, 2006).

3.4.2 Item analysis of the Family Conflict Scale (FCS) in the pilot study

3.4.2.1 Adaptive Volatile Scale (7 items)

The alpha coefficient for the items written for the *Adaptive Volatile Scale* was .61 (>.30 as discussed above) thus indicating a high internal consistency and test reliability. Item-total correlations are presented in Table 3.4 below.

TABLE 3.4: Item total statistics (Volatile)

Description of items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Vo_5 (we value arguing as a way of resolving issues)	25.67	19.838	.363	.559
Vo_9 (we love each other even though we have strong arguments)	23.55	23.059	**.242**	.597
Vo_13 (believe in openly discussing issues in order to resolve them)	24.21	23.465	**.151**	.626
Vo_17 (try hard to persuade each other of our own point of view)	24.48	21.973	.336	.571
Vo_31 (can still joke even when we are arguing)	24.52	20.780	**.275**	.593
Vo_32 (express our differences loudly)	24.93	19.820	.426	.537
Vo_34 (are comfortable with having heated arguments)	25.60	18.875	.490	.511

Item analysis indicated three items, Vo_9: *we love each other even though we have strong arguments*; Vo_13: *believe in openly discussing issues in order to resolve them*; and Vo_31: *can still joke even when we are arguing* with item-total correlations below .30. Considering these three items, it may be that participants had difficulties integrating the ambivalence captured in items Vo_9: *we love each other even though we have strong arguments* and Vo_31: *can still joke even when we are arguing*. Whereas, item Vo_13: *believe in openly discussing issues in order to resolve them* could indicate a characteristic more of a validator style, as opposed to a volatile style. It was therefore decided to consider the item (Vo_13) for the adaptive validator scale (discussed next). Therefore, two items (Vo_9 and Vo_31) were considered candidates for deletion, and one item (Vo_13) moved to the Validator scale, which improved the Alpha of the remaining four items of the Volatile Scale to .71. Four additional items were written for the Volatile scale to be used in the main study. They were: (a) *we can argue passionately about our differences*; (b) *enjoy having a good argument*; (c) *we don't feel intimidated by strong arguments*; and (d) *we feel energised when we have strong disagreements*.

3.4.2.2 Adaptive Validator Scale (7 items)

The Alpha coefficient for the *Adaptive Validator Scale* was .88 and thus demonstrated high internal consistency and test reliability. Item-total correlations are presented in Table 3.5 below.

TABLE 3.5: Item total statistics (Validator)

Description of items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Val_1 (talk through differences respectfully)	24.53	37.012	.696	.861
Val_3 (accept someone else's point of view, even if we don't agree)	24.86	40.568	.620	.870
Val_11 (understand each other better after an argument than before)	24.85	43.028	.404	.896
Val_18 (we show understanding for each other even when we disagree)	24.56	38.940	.730	.857
Val_23 (discuss matters calmly and listen to each other)	24.64	39.026	.676	.863
Val_24 (try to find a compromise that suits all of us)	24.49	36.909	.736	.855
Val_29 (listen to each other's point of view during an argument)	24.44	37.389	.847	.842

Item analysis indicated none of the items with item-total correlations below .30. Thus, the validator scale has acceptable internal validity and appears to measure the constructs reliably. Item 13: *believe in openly discussing issues in order to resolve them* from the Adaptive Volatile Scale was transferred to this scale as it reflected Validator characteristics. Inclusion of this item improved the Alpha to .90 with all item total correlations above .40

3.4.2.3 Adaptive Avoidant Scale (7 items)

The Alpha coefficient for the *Adaptive Avoidant Scale* was .57 and thus indicated a reasonable internal consistency and test reliability, however lower than the previous scales. Item-total correlations are presented in Table 3.6 below.

TABLE 3.6: Item total statistics (Avoidant)

Description of items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Av_7 (prefer to avoid disagreements because we don't want to upset each other)	21.95	17.910	**.276**	.542
Av_15 (rather agree to disagree than having to argue over something)	21.69	18.183	**.292**	.536
Av_22 (view conflict as a waste of family time)	22.09	16.185	.319	.527
Av_25 (try to ignore our differences and focus on what keeps us together)	21.22	17.580	.385	.506
AV_26 (focus on the positive rather than having disagreements)	21.07	18.943	**.210**	.563
Av_28 (focus on what we have in common and let our differences sort themselves out)	21.76	19.028	**.183**	.573
Av_33 (believe differences will resolve themselves over time)	21.98	15.877	.405	.488

From the table it is evident that the majority of the all the items in the Avoidant scale showed fairly low item-total correlations, but four of the seven items in particular, Av_7: *prefer to avoid disagreements because we don't want to upset each other*; Av_15: *rather agree to disagree than having to argue over something*; Av_26: *focus on the positive rather than having disagreements* and Av_28: *focus on what we have in common and let our differences sort themselves out*, achieved item-total correlations below the acceptable level set for the study (α < .30). It seemed therefore, that all the items in the scale did not function adequately. Given that the items in this scale were written to be short and concise, it is possible that the problem with the scale may be related more to the fact that the items could perhaps have been ambiguous, rather than not being understood by the participants.

Thus, given the acceptable reliabilities and performance of the other adaptive scales, as well as the limited scope of the present study, it was decided to omit the Avoidant Scale from the main study as it proved to demonstrate low reliability and low item total correlations.

3.4.2.4 Maladaptive Hostile-engaged Scale (7 items)

The Alpha coefficient for the *Maladaptive Hostile-engaged Scale* was .69 thus demonstrating high internal consistency and test reliability. Item-total correlations are presented in Table 3.7 below.

TABLE 3.7: Item total statistics (Hostile-Engaged)

Description of items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
He_2 (attack each other personally in an argument)	16.69	23.940	.508	.631
He_4 (try to inflict pain on each other during arguments)	17.53	24.564	.455	.645
He_10 (are aggressive, verbally or physically, during disagreements)	17.24	22.874	.566	.613
He_12 (show contempt for each other during arguments)	16.07	31.685	**-.093**	.776
He_14 (disrespect and insult each other when disagreeing)	17.49	24.496	.479	.640
He_16 (criticise or blame each other during disagreements)	16.36	23.475	.513	.628
He_20 (have to continually defend ourselves strongly in arguments)	16.49	22.668	.472	.638

Item analysis indicated one item He_12: *show contempt for each other during arguments* with an item-total correlation close to zero. This particular item also correlated negatively with other items in the scale. Consistent with recommendations in the literature (Worthington & Whittaker, 2006), deletion of this item was concluded. Deletion of this item improved the Alpha to .77 with all item-total correlations above .40.

3.4.2.5 Maladaptive Hostile-detached Scale (7 items)

The Alpha coefficient for the *Maladaptive Hostile-detached Scale* was .82 which indicates high internal consistency and test reliability. Item-total correlations are presented in Table 3.8 below.

TABLE 3.8: Item total statistics (Hostile-Detached)

Description of items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Hd_6 (largely ignore each other except for occasional attacks)	14.46	39.839	.526	.801
Hd_8 (are emotionally uninvolved with each other)	14.34	37.366	.535	.802
Hd_19 (can't stand each other so we prefer to avoid each other)	14.80	38.337	.690	.777
Hd_21 (prefer not to be involved in each other's lives)	14.54	35.390	.689	.772
Hd_27 (ignore each other during times of conflict)	13.98	39.500	.559	.796
Hd_30 (never really address the contempt we feel for each other)	13.44	38.768	.491	.809
Hd_35 (try to hurt people by ignoring what is important to them)	14.71	41.898	.464	.810

Item analysis indicated none of the items with item-total correlations below .30. Thus, the Hostile-Detached Scale showed acceptable internal validity. The revised piloted scale used in the main study appears in Annexure 2.

3.4.3 Summary

Overall, adaptations to the Family Conflict Scale (FCS) resulted in a more refined questionnaire, consisting of a total of 29 items (Annexure 2). Six items were deleted from the initial pool of 35 items, leaving 29 items with good overall alpha coefficients for the main study. The reliabilities achieved from the piloted questionnaire led to the conclusion that it could be used to examine the research questions presented in the main study discussed in the next section.

3.5 MAIN STUDY

3.5.1 Research questions

The main study was conducted with the objective to reassess the reliability of the scale, to assess construct validity and to investigate the following research questions by testing hypotheses. The primary research question that guided the main study is:

What is the relationship between family conflict style and commitment to the family of origin?

The primary research question consisted of several sub questions:

1. *How can family conflict styles be measured?*
2. How do demographic variables such as gender and relationship status differ in terms of young adults' experience of family conflict?
3. How do family factors such as age, parent's marital status and relationship with parents' differ in terms of family conflict?
4. How are adaptive and maladaptive family conflict styles related to family commitment?

To examine the research question, several sets of hypotheses were formulated (as described in Chapter 1). These will be described in the next section. The choice of statistical tests to examine the hypotheses was preceded by an assessment of the normality of the data, which will be discussed in section 3.6.3 of the present chapter.

3.5.2 Research hypotheses

- First set of hypotheses: Testing subgroup differences in scale means for two groups.

TABLE 3.9: Differences in means between two groups (Mann-Whitney U Test)

Null Hypothesis $H_0 : \mu_{1.2} = 0$	Alternative Hypothesis $H_A : \mu_{1.2} \neq 0$
There is no significant difference between subgroups (gender, age and relationship status) in terms of the study variable (family conflict style).	There is a statistically significant difference between subgroups (gender, age and relationship status) in terms of the study variable (family conflict style).

- Second set of hypotheses: Testing subgroup differences in scale means for three or more groups.

TABLE 3.10: Differences in means between three or more groups (Kruskal-Wallis H)

Null Hypothesis $H_{0:} \mu_a = \mu_{,b}, = \mu_c$	Alternative Hypothesis $H_A: \mu_a \neq \mu_{,b}, \neq \mu_c$
There is no significant difference between subgroups (marital status of parents and relationship with parents) in terms of the study variable (family conflict style).	There is a statistically significant difference between subgroups (marital status of parents and relationship with parents) in terms of the study variable (family conflict style).

- Third set of hypotheses: Correlations between study variables

Table 3.11: Correlations (Spearman's Rho)

Null Hypothesis $H_0: \rho_{xy} = 0$	Alternative Hypothesis $H_A: \rho_{xy} \neq 0$
There is no statistically significant relationship between the study variables (family conflict style and family commitment).	There is a statistically significant relationship between the study variables (family conflict style and family commitment).

3.6 RESULTS OF THE MAIN STUDY

3.6.1 Scale properties of the Family Conflict Scale (FCS)

The scale properties of the Family Conflict Scale (FCS), with regards to item-total correlations, internal consistencies, and factor analysis were examined using similar procedures as described in the pilot study mentioned above. The Alpha for the full scale FCS (29 items, n = 190) was 0.75 as depicted below in Table 3.12 and considered acceptable (.80>α ≥ .70) according to the recommendations in the literature (Fabrigar & Wegener, 2012).

Table 3.12: Cronbach's Alpha for the full scale

Reliability Statistics	
Cronbach's Alpha	No. of Items
.748	29

For the full scale analysis, the Validator Scale items generally achieved item-total correlations lower than 0.30 in comparison to the rest of the items. Given the theoretical rationale of the items, this result was interpreted to be indicative of the existence of two orthogonal (unrelated) factors in the scale, which theoretically would be represented by the Adaptive (Validator and Volatile) and Maladaptive (Hostile-Engaged and Hostile-Detached) Scales. It was decided to run the item analysis separately for items belonging to the theorised Adaptive and Maladaptive Conflict Styles, which greatly improved the alpha and item-total correlations of the Validator Scale. Nevertheless, the Volatile Scale item-total correlations generally remained lower than 0.30. In this separate item-analysis, the Adaptive Conflict Styles (Validator and Volatile) achieved an Alpha of 0.76; while the Maladaptive (Hostile-Engaged and Hostile-Detached) style achieved an Alpha of 0.92 with no item-total correlations lower than 0.40 thus making the coefficients acceptable. To assess dimensionality and construct validity of the scales, exploratory factor analysis was used next.

3.6.2 Exploratory factor analysis

A factor analysis was conducted which "enables the researcher to take a set of variables and reduce them to a smaller number of underlying factors which account for as many variables as possible" (Cohen et al. 2007, p. 560). Thus, variables were grouped together to determine the minimum number of constructs, which proved to have something in common, and to explain patterns in item correlations (Fabrigar & Wegener, 2012).

To decide whether the data were suitable for exploratory factor analysis, I considered several recommendations in the literature. Fabrigar and Wegener (2012) criticise the quoted arbitrary rule of 10 participants per item and suggested that factor analysis be appropriate with a sample size of approximately 200 when commonalities between items are between 0.40 and 0.70, with at least 3-5 measured items per construct (Fabrigar & Wegener, 2012). These criteria were met in the present study. Additional criteria that were considered include the Kaiser-Maier-Olkin

measure of sampling adequacy (0.89) and Bartlett's test of sphericity ($\chi 2$ = 2634.43, p = .000) as depicted in Table 3.13 below (Kaplan & Saccuzzo, 2012). The Kaiser-Maier-Olkin and Bartlett's test was considered in order to determine whether the data would be amenable to factor analysis.

Table 3.13: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.890
Bartlett's Test of Sphericity	Approx. Chi-Square	2634.430
	Df	406
	Sig.	.000

The intercorrelation matrix was subjected to maximum likelihood estimation (MLE) analysis, using oblique (promax) rotation because the items were assumed to be theoretically associated. An item from the Hostile-Engaged Scale, He_3: *in my family we are aggressive 'verbally/physically' during disagreements* was identified as a Heywood case (estimated communalities > 1, negative error variances) and deleted from the data as suggested by Fabrigar and Wegener (2012).

To select the number of factors that would best explain the data, a combination of several guidelines were used to find the most stable solution for the data. First, the Kaiser criterion (Eigenvalues >1) and Cattell criteria (scree plot) were considered. Both these criteria suggested that a three factor solution would fit the data well (See Annexure 4 for all raw statistical data). Fabrigar and Wegener (2012), acknowledge that the eigenvalue rule can result in the extraction of too many factors, so we ran a parallel analysis to compare the Eigenvalues in the real data to the Eigenvalues of random data (O'Connor, 2000). Fabrigar and Wegener (2012) state that parallel analysis "involves comparing eigenvalues from the reduced matrix….with eigenvalues that would be expected to emerge from a reduced matrix produced by random data" (p112). Results from the parallel analysis also suggested a three factor solution for the real data based on a comparison of the eigenvalues generated for random data in the parallel analysis. Therefore, it was decided to specify a three factor solution (MLE, promax rotation) and to assess how well it fit the data by means of the Chi-square goodness-of-fit test, as well as the

root mean square error of approximation (RMSEA) which can be calculated from the Chi-square test (Fabrigar & Wegener, 2012). The results are presented in Table 3.14 below.

TABLE 3.14: Pattern matrix (Three factor solution)

	Factor		
	1	2	3
HD_4	**.772**	.065	-.024
HE_6	**.718**	.220	.110
HD_6	**.709**	-.057	.110
HD_3	**.682**	-.016	.004
HD_1	**.681**	.046	-.028
HE_2	**.680**	.059	.095
HD_2	**.670**	.014	-.144
HD_7	**.618**	.142	-.058
HE_4	**.557**	-.140	.271
HE_5	**.545**	-.067	.244
HE_1	**.537**	-.217	.208
VO_8	**.488**	*.352*	*.320*
VA_3	**-.477**	.049	.439
VA_1	**-.456**	*.327*	.165
HD_5	**.454**	-.164	.111
VA_4	-.382	**.304**	.129
VA_2	-.346	**.306**	.180
VA_7	-.329	**.268**	.115
VA_6	.131	**.904**	-.334
VA_8	-.222	**.667**	-.094
VO_6	.297	**.639**	.056
VA_5	-.391	**.560**	-.011
VO_7	.137	**.433**	*.300*
VO_5	-.171	**.419**	*.401*
VO_1	-.141	-.089	**.681**
VO_4	.068	.047	**.532**
VO_2	.057	-.049	**.419**
VO_3	.160	.053	**.357**

The items loading on Factor One were mainly Hostile-Detached and Hostile-Engaged items that merged to reflect one common underlying style, namely the Maladaptive Conflict Style. In addition, three items from the Adaptive Conflict Style (Volatile - Vo_8: *we feel energised when we have strong disagreements*; Validator - Va_1: *we talk through differences respectfully*; and Va_3: *we love each other even though we have strong arguments*) also loaded on Factor One as would be expected in a promax rotation. The items were possibly ambiguous in meaning and thus leaned more towards the non-regulating items.

Items reflecting the overarching Adaptive Conflict Style loaded on Factor Two with the majority of items from the Validating Style (Va_2: *accept someone else's point of view even if we don't agree*; Va_4: *believe in openly discussing issues to resolve them*; Va_5: *we show understanding for each other even when we disagree*; Va_6: *discuss matters calmly and listen to each other;* Va_7: *try to find a compromise that suits all of us*; and Va_8: *listen to each other's point of view during an argument)* and three Volatile items (Vo_5: *we can argue passionately*

about our differences; Vo_6: *we enjoy having a good argument*; and Vo_7: *we don't feel intimidated by strong arguments*) that also loaded on factor two.

Factor Three consisted of Adaptive Volatile Style items only. In understanding the meaning of the items, it is important to note that some cross correlations did occur as would be expected in a promax rotation, namely with items from the Adaptive Conflict Scale to the Maladaptive Scale (Vo_8: *we feel energised when we have strong disagreements*; Va_1: *talk through differences respectfully*; and Va_3: *we love each other even though we have strong arguments*). Theoretically, cross correlation would not be expected and therefore some limitations are indicative in the solution. The items where cross correlations did occur (Vo_8, Va_1, and Va_3) could indicate that these items were not conceptually pure.

The model fit indices seem to suggest that the three factor solution fits the data well. The chi-square (x^2 = 509.794, p = 000) and root mean square error of approximation (RMSEA = .0491) both indicated close fit (Fabrigar & Wegener, 2012). Despite this result, it did not seem to make theoretical sense that Item 1 (*In my family we talk through differences respectfully*), and Item 3 (*In my family we love each other even though we have strong arguments*) from the Validator scale should load with items on the Maladaptive (Hostile) Scale. Given that the items written for the Volatile Scale seemed to have the lowest item-total correlations initially (refer to Table 3.3), and given that the items of the Volatile Scale seem to be scattered across all three factors, it was decided to see if a better model could be fitted to the data when the Volatile Scale items were omitted from the analysis.

MLE was applied to the data again (with promax rotation). In this case, the Kaiser criterion suggested the extraction of four factors, while the scree plot suggested two factors. The Chi-square goodness-of-fit index suggested the four factor-model would explain the data well (χ^2 = 164.515, p =.002), while the RMSEA (0.045) suggested a close fit. However, inspection of the matrix indicated that only one item (Va_6: *In my family we love each other even though we have strong arguments*) loading on Factor Four. The analysis was run again, this time without Va_6. The results are presented in Table 3.15 below.

TABLE 3.15: Pattern matrix (Three factor solution)

	Factor		
	1	2	3
VA_6	**.809**	-.146	.254
VA_8	**.743**	-.204	.135
VA_5	**.729**	-.184	.035
VA_1	**.588**	.191	-.314
VA_2	**.583**	.226	-.182
VA_4	**.549**	.040	-.093
VA_7	**.510**	.127	-.119
HE_4	.096	**.990**	-.076
HD_6	-.007	**.664**	.186
HD_3	-.003	**.604**	.143
HD_4	.044	**.559**	.262
HE_2	.049	**.503**	.281
HE_1	-.147	**.481**	.237
HE_6	.073	.098	**.667**
HD_1	-.045	.115	**.574**
HD_7	.002	.026	**.554**
HE_5	-.003	.280	**.496**
HD_2	-.173	.071	**.448**
HD_5	-.212	.090	**.424**

Model fit indices for the three factor solution were acceptable (χ^2 = 210.72; p = .000, RMSEA = 0.062). The three Factors correspond to the following items in Table 3.16:

TABLE 3.16: Family Conflict Scale (FCS) items relating to the three factors

Factor One – Adaptive Conflict (Validator)	Factor Two – Maladaptive Conflict(Hostile – Engaged)	Factor Three –Maladaptive Conflict (Hostile – Detached)
In my family we discuss matters calmly and listen to each other (Va_23).	In my family we disrespect and insult each other when disagreeing (He_14).	In my family we have to continually defend ourselves strongly in arguments (He_20).
In my family we listen to each other's point of view during an argument (Va_29).	In my family we can't stand each other so we prefer to avoid each other (Hd_19).	In my family we largely ignore each other except for occasional attacks (Hd_6).
In my family we show understanding for each other even when we disagree (Va_18).	In my family we prefer not to be involved in each other's lives (Hd_21).	In my family we ignore each other during times of conflict (Hd_27).
In my family we talk through differences respectfully (Va_1).	In my family we try to hurt people by ignoring what is important to them (Hd_35).	
In my family we accept someone else's point of view even if we don't agree (Va_3).	In my family we attack each other personally in an argument (He_2).	
In my family we believe in openly discussing issues to resolve them (Vo_13).	In my family we try to inflict pain on each other during arguments (He_4).	
In my family we try to find a compromise that suits all of us (Va_24).		

The factor correlations appear in Table 3.17 below:

TABLE 3.17: Factor correlations matrix

Factor	1	2	3
1	1.000	-.644	-.548
2	-.644	1.000	.693
3	-.548	.693	1.000

Extraction Method: Maximum Likelihood.
Rotation Method: Promax with Kaiser Normalization.

Finally, scale scores were calculated using the three factor solution obtained for the data. The reliabilities obtained were as follows: Adaptive (Validator) scale, 0.84; Maladaptive (Hostile Engaged), 0.89; Maladaptive (Hostile Detached), 0.82. The scale scores were calculated next to assess the normality of the score distributions.

3.6.3 Assessing the normality of the Family Conflict Scale (FCS)

3.6.3.1 Descriptives of the Family Conflict Scale (FCS)

The descriptives of the FCS scales appear in Table 3.18 below

TABLE 3.18: Descriptives of the Family Conflict Scale (FCS)

			Statistic	Std. Error
Adaptive (Validator)	Mean		4.5561	.06701
	95% Confidence Interval for Mean	Lower Bound	4.4240	
		Upper Bound	4.6883	
	5% Trimmed Mean		4.6278	
	Median		4.7143	
	Variance		.880	
	Std. Deviation		.93810	
	Minimum		1.29	
	Maximum		6.00	
	Range		4.71	
	Interquartile Range		.86	
	Skewness		-1.279	.174
	Kurtosis		1.790	.346
Maladaptive (Hostile-Detached)	Mean		2.5884	.07481
	95% Confidence Interval for Mean	Lower Bound	2.4409	
		Upper Bound	2.7360	
	5% Trimmed Mean		2.5425	
	Median		2.5000	
	Variance		1.097	
	Std. Deviation		1.04737	
	Minimum		1.00	
	Maximum		6.00	
	Range		5.00	

	Interquartile Range		1.50	
	Skewness		.622	.174
	Kurtosis		-.101	.346
Maladaptive (Hostile-Engaged)	Mean		1.8852	.07074
	95% Confidence Interval for Mean	Lower Bound	1.7457	
		Upper Bound	2.0247	
	5% Trimmed Mean		1.7644	
	Median		1.6667	
	Variance		.981	
	Std. Deviation		.99041	
	Minimum		1.00	
	Maximum		5.83	
	Range		4.83	
	Interquartile Range		1.00	
	Skewness		1.706	.174
	Kurtosis		3.219	.346

As seen in the above table, the difference between mean and 5% trimmed mean (the top and bottom 5% of the scores are excluded to calculate this) indicates that outliers have had a slight effect on the distribution of the scores and location of mean. The skewness and kurtosis values suggest that scores may not be normally distributed. Thus, the statistical tests for normality were considered (Table 3.19).

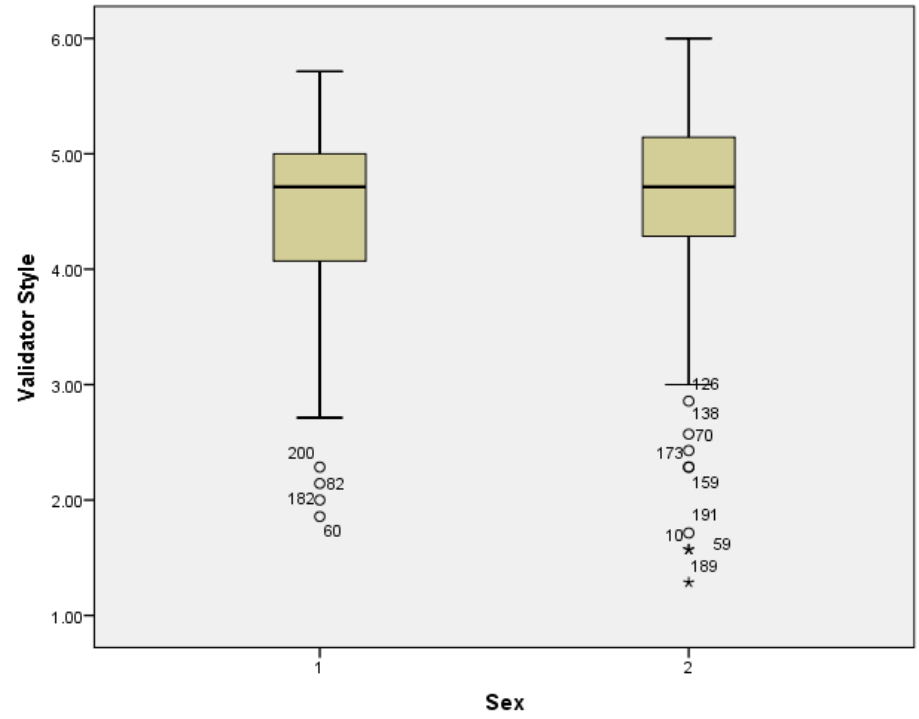
TABLE 3.19: Tests of normality (Family Conflict Scale FCS)

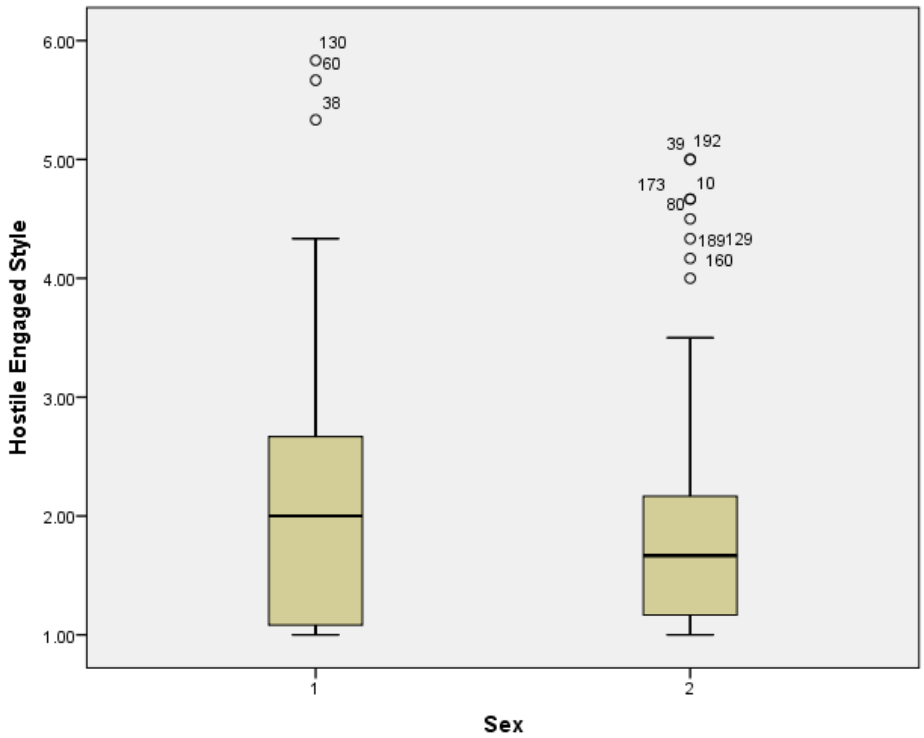
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Adaptive (Validator)	.165	196	.000	.897	196	.000
Maladaptive (Hostile-Detached)	.090	196	.001	.959	196	.000
Maladaptive (Hostile-Engaged)	.186	196	.000	.814	196	.000

a. Lilliefors Significance Correction

The above table indicates that the measures of normality are significant for all the FCS scales, indicative of the data being skewed. As a result parametric statistics could not be used, so it was decided that non-parametric equivalents were to be used to test the hypotheses. Thus, the Mann-Whitney U test (to test first hypotheses), the Kruskall-Wallis (to test second hypotheses) and the Spearman's Rho (to test third hypotheses) will be used and discussed in section 3.6.5.

A box plot summarizes data using the median, upper and lower quartiles, and the extreme (least and greatest) values (Fabrigar & Wegener, 2012). It allows the researcher to see important characteristics of the data at a glance. The Box plots illustrated in Figure 3.1 below indicate the distribution of scores with outliers for males and females with regards to the Validator style, Hostile-engaged style and Hostile-detached style.





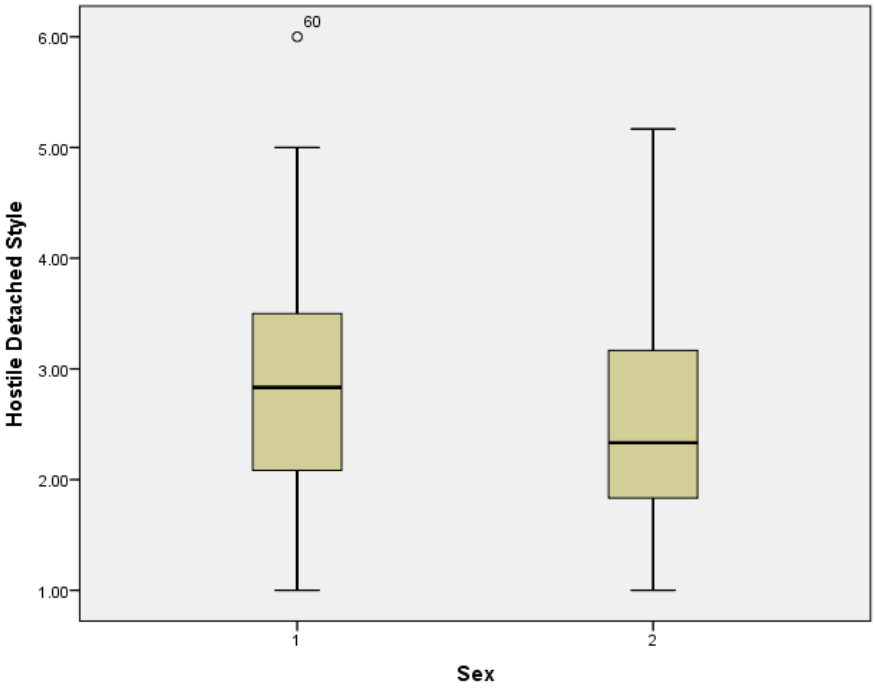


FIGURE 3.1: Box plots (Family Conflict Scale FCS)

Exploring the data also included checking for assumptions of linearity. Scatterplots were generated for the Family Conflict Scale (FCS) and this is presented in Figure 3.2 below

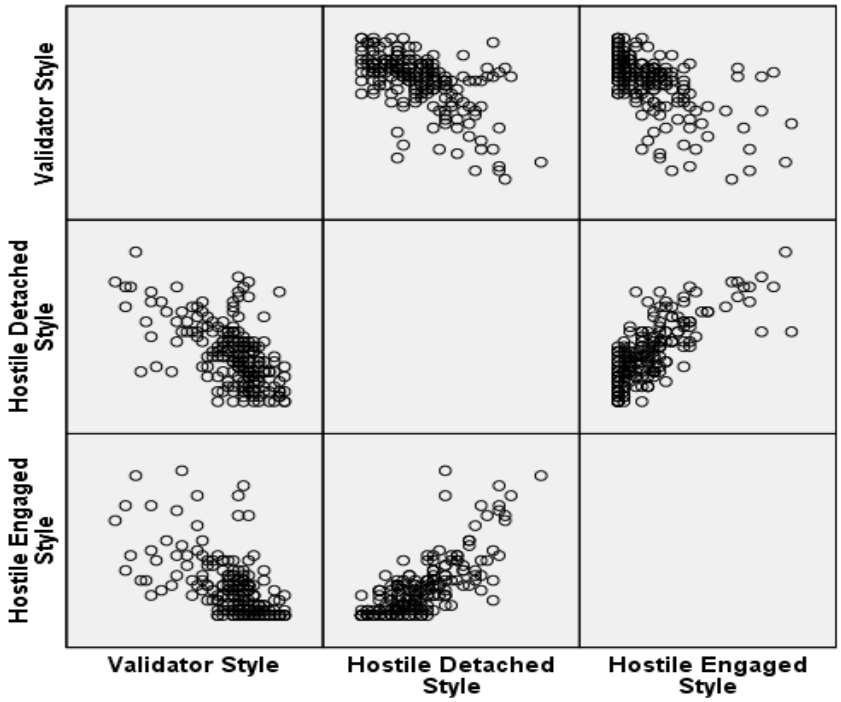


FIGURE 3.2: Scatterplots for the Family Conflict Scale (FCS)

Inspection of the scatterplots indicates that variables are skewed, but approximately linearly associated. Based on the above analysis it was decided to primarily use non-parametric statistical tests to examine hypotheses because the data violate assumptions of normality and homoscedasticity (Fabrigar & Wegener, 2012).

The next section will be a discussion on the descriptive statistics for the present study, as well as a discussion of the hypotheses and a summary of the overall findings.

3.6.4 Descriptives of the main sample

3.6.4.1 Demographic variables

The main study population consisted of 204 young adults, aged between 18 and 25 years of age, and living within Pretoria area. See Table 3.20 below.

TABLE 3.20: Descriptives of sample

	Frequency *(f)*	Percent (%)
Gender		
Male	38	18.6
Female	166	81.4
Age in years (*N*=204; *M*=20.5 years; *SD*=1.7 years)		
Home Language (*N*=204)		
Afrikaans	98	55.1
English	46	20
African language[1]	59	3.06
Highest Qualification (*N*=204)		
Grade 12/Senior Certificate	115	56.4
Degree/Diploma (Matric +3years)	83	40.7
Honours (Matric +4years)	4	2.0
Missing values	2	1.0
Involved in a Relationship (*N*=204)		
Yes	112	54.9
No	91	44.6
Missing value	1	0.5
Description of Relationship		
Casual	21	10.3
Committed	90	44.1
Missing value	92	45.1
Parental Marital Status*(N=204)*		
Married	129	63.2
Separated	25	12.3
Divorced	17	8.3
Remarried	8	3.9
Deceased	18	8.8
Missing value	7	3.4
Description of Relationship with Parents		
Uncomplicated supportive	85	41.7
Complicated tense	14	6.9
Distant Uninvolved	14	6.9
Close involved	89	43.6
Missing value	2	1.0

Note. [1] = African language include nine indigenous official languages of South Africa of which mother tongue speakers are black South Africans.

Based on the preceding table the following can be summarised. The overall sample population consisted of n = 204 young adults of which 38 (18.6%) were male and 166 (81.1%) were female students. The ages of the respondents ranged between the ages of 18-25 years of age – of which the mean (*M*) age was calculated at 20.6. The respondents were requested to specify their home language, 98 (55.1%) indicated Afrikaans as their home language, 46 (20%) English and 59 (3.06%) indicated an African language as their home language. Furthermore, 115 (56.4%) respondents reported Matric as their highest qualification, 83 (40.7%) reported a Degree or Diploma and 4 (2.0%) reported an Honours degree as their highest qualification. Two (1.0%) respondents did not specify anything thus regarded as missing values. Respondents were required to disclose their relationship status and 112 (54.9%) reported being involved in a relationship, 91 (44.6%) reported not being a relationship and 1 (0.5%) was recorded as a missing value. A description of what type of relationship the respondents were involved in consisted of casual or committed – 21 (10.3%) described the relationship as casual, 90 (44.1%) described their relationship as committed and 92 (45.1%) were considered as missing values. Furthermore, respondents were requested to indicate their parent's marital status – 129 (63.2%) reported them as married, 25 (12.3%) as separated, 17 (8.3%) as divorced, 8 (3.9%) as remarried, 18 (8.8%) as deceased and 7 (3.4%) respondents omitted to fill it in and thus regarded as missing values. Lastly, respondents reported how they viewed their relationship with their parents, 85 (41.7%) regarded their relationship as uncomplicated supportive, 14 (6.9%) viewed it as complicated tense, 14 (6.9%) as distant uninvolved, 89 (43.6%) as close involved and 2 (1.0%) were regarded as missing values.

The research questions as addressed by the hypotheses will be elaborated on extensively in the following section.

3.6.5 Hypotheses

The first set of hypotheses will address the sub question which asks how demographic variables such as gender and relationship status differ in terms of young adults' experience of family conflict.

3.6.5.1 First set of hypotheses: Independence of samples (Mann-Whitney U Test)

Hypotheses were formulated to test the independence of two subgroups in the sample for gender and relationship status. The Mann-Whitney U – Test was selected to assess the null

hypothesis (Fabrigar & Wegener, 2012). The following null and alternative hypotheses were investigated:

- **Null Hypothesis: $H_0 : \mu_{1.2} = 0$**

Subgroups (gender and relationship status) analysed in the study will not differ significantly in terms of family conflict style.

- **Alternative Hypothesis: $H_A : \mu_{1.2} \neq 0$**

Subgroups (gender and relationship status) analysed in the study will differ significantly from each other in terms of family conflict style.

All statistical tests that were performed were two-tailed and the significance level was set at $p < 0.05$. Missing values were excluded from the analysis. No significant differences were reported for any of the subgroup analyses in the Family Conflict Scale (FCS) as presented in Table 3.21 below. The null hypothesis could, therefore, be accepted for all study variables. Thus, subgroups (gender and relationship status) analysed in the study will not differ significantly in terms of family conflict style.

TABLE 3.21: Descriptives, mean ranks and test statistics (Gender)

Descriptive Statistics

	Mean	Std. Deviation	Minimum	Maximum
Adaptive (Validator)	4.5537	.93546	1.29	6.00
Maladaptive (Hostile Detached)	2.5933	1.05060	1.00	6.00
Maladaptive (Hostile Engaged)	1.8756	.98545	1.00	5.83

Ranks

		N	Mean Rank	Sum of Ranks
Adaptive (Validator)		37	90.82	3360.50
		164	103.30	16940.50
		201		
Maladaptive (Hostile Detached)		38	116.17	4414.50
		162	96.82	15685.50
		200		
Maladaptive		37	114.05	4220.00

(Hostile Engaged)	164	98.05	16081.00
	201		

Test Statistics[a]

	Adaptive (Validator)	Maladaptive (Hostile Detached)	Maladaptive (Hostile Engaged)
Mann-Whitney U	2657.500	2482.500	2551.000
Wilcoxon W	3360.500	15685.500	16081.000
Z	-1.181	-1.858	-1.526
Asymp. Sig. (2-tailed)	.238	.063	.127

a. Grouping Variable: Gender

The same analyses were carried out for age and relationship status (Table 3.22), after the variable had been recorded to roughly form two equal groups in the following way: 19 -20 years (group 1, *n* = 86) and 21 – 29 years old (group 2, *n* = 108). The Mann-Whitney U test showed no significant differences for age and relationship status on the study variables and therefore the null hypothesis was retained.

TABLE 3.22: Age group and relationship status (Casual or Committed)

Test Statistics[a]

	Adaptive (Validator)	Maladaptive (Hostile Detached)	Maladaptive (Hostile Engaged)
Mann-Whitney U	4414.000	4424.500	4425.000
Wilcoxon W	7984.000	7994.500	7995.000
Z	-.211	-.073	-.184
Asymp. Sig. (2-tailed)	.833	.942	.854

a. Grouping Variable: Agegroup

Test Statistics[a]

	Adaptive (Validator)	Maladaptive (Hostile Detached)	Maladaptive (Hostile Engaged)
Mann-Whitney U	4331.50	4785.0	4711.000
Wilcoxon W	10547.5	8790.0	8716.000
Z	-1.498	-.273	-.567
Asymp. Sig. (2-tailed)	.134	.785	.570

a. Grouping Variable: Relationship Status

Regarding the description of their relationships as casual or committed as seen above, the Mann-Whitney U test indicated that in the Family Conflict Scale (FCS) there was a significant difference between the two groups for the two maladaptive styles (Hostile-Detached and Hostile-Engaged).

The second set of hypotheses discussed below will address the sub question which asks whether family factors such as parent's marital status and relationship with parents' differ in terms of family conflict.

3.6.5.2 Second set of hypotheses: Analysis of variance (Kruskal-Wallis H)

Hypotheses were formulated to test analysis of variance by testing subgroup differences in scale means for three or more groups. The Kruskal-Wallis H Test was selected to assess whether samples were derived from the same distribution (Fabrigar & Wegener, 2012). This is a non-parametric measure and is used to compare two or more samples that are not related (Cohen et al. 2007). The following null and alternative hypotheses were investigated:

- **Null Hypothesis: $H_0 : \mu_a = \mu_b, = \mu_c$**

Comparisons of the various subgroups (age, marital status of parents and relationship with parents) will not differ significantly in terms of family conflict style.

- **Alternative Hypothesis: $H_A : \mu_{1.2} \neq 0$**

Comparison of the various subgroups (age, marital status of parents and relationship with parents) will differ significantly in terms of family conflict style.

The analysis of variance was calculated and significance level was set at $p = 0.05$ for all statistical tests that were performed. Kruskall-Wallis H analyses were carried out for the marital status of parents (Table 3.23) and proved non-significant for all groups on all scales. Therefore the null hypothesis was retained.

TABLE 3.23: Descriptives, ranks and test statistics (Marital Status)

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Adaptive (Validator)	201	4.5537	.93546	1.29	6.00
Maladaptive (Hostile Detached)	200	2.5933	1.05060	1.00	6.00
Maladaptive (Hostile Engaged)	201	1.8756	.98545	1.00	5.83

Ranks

	Parents Marital Status	N	Mean Rank
Adaptive (Validator)	Married	128	98.77
	Separated	23	101.20
	Divorced	17	96.82
	Remarried	8	53.56
	Deceased	18	103.94
	Total	**194**	
Maladaptive (Hostile Detached)	Married	127	93.13
	Separated	23	95.65
	Divorced	17	100.88
	Remarried	8	136.56
	Deceased	18	104.78
	Total	**193**	
Maladaptive (Hostile Engaged)	Married	127	92.77
	Separated	24	97.94
	Divorced	17	96.00
	Remarried	8	147.88
	Deceased	18	109.31
	Total	**194**	

Test Statistics[a]

	Adaptive (Validator)	Maladaptive (Hostile Detached)	Maladaptive (Hostile Engaged)
Chi-Square	5.327	5.084	8.326
Df	4	4	4
Asymp. Sig.	-.255	.279	.080

a. Kruskal Wallis Test
b. Grouping Variable: Parents Marital Status

Regarding the relationship with the parents, the Kruskal-Wallis H test (Table 3.24) indicated significant differences for all scale means for the four different groups. Therefore the null hypothesis was rejected in favour of the alternative hypothesis which indicates that a comparison of the various subgroups (relationship with parents) will differ significantly in terms of family conflict style.

TABLE 3.24: Descriptives, ranks and test statistics (Relationship Status with parents)

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Adaptive (Validator)	201	4.5537	.93546	1.29	6.00

Maladaptive (Hostile Detached)	200	2.5933	1.05060	1.00	6.00
Maladaptive (Hostile Engaged)	201	1.8756	.98545	1.00	5.83

Ranks

	Rel_Gen	N	Mean Rank
Adaptive (Validator)	Uncomplicated supportive	85	95.29
	Complicated tense	13	100.88
	Distant uninvolved	13	48.08
	Close involved	88	112.09
	Total	199	
Maladaptive (Hostile Detached)	Uncomplicated supportive	84	108.14
	Complicated tense	14	106.46
	Distant uninvolved	13	148.38
	Close involved	88	84.05
	Total	199	
Maldaptive (Hostile Engaged)	Uncomplicated supportive	84	111.49
	Complicated tense	14	110.29
	Distant uninvolved	13	128.35
	Close involved	88	83.20
	Total	199	

Test Statistics[a]

	Adaptive (Validator)	Maladaptive (Hostile Detached)	Maladaptive (Hostile Engaged)
Chi-Square	15.082	17.840	14.705
Df	3	3	3
Asymp. Sig.	.002	.000	.002

a. Kruskal Wallis Test
b. Grouping Variable: Rel_Gen

3.6.5.3 Summary of the above hypotheses

The first set of hypotheses discussed above addressed the following sub question:

- *How do demographic variables such as gender and relationship status differ in terms of young adults' experience of family conflict?*

The hypotheses were formulated to test the independence of two subgroups in the sample for gender and relationship status by using the Mann-Whitney U test. The null hypothesis proved to be retainable thus, subgroups (gender and relationship status) analysed in the study proved not to differ significantly in terms of family conflict style. The same analyses were carried out for age

and relationship status and the Mann-Whitney U test showed no significant differences for age and relationship status on the study variables and therefore the null hypothesis was also retained.

The second set of hypotheses addressed the sub question below:

- *How do family factors such as parents' marital status and relationship with parents differ in terms of family conflict?*

The hypotheses were formulated to test analysis of variance by testing subgroup differences in scale means for three or more groups. The Kruskal-Wallis H Test was selected to assess whether samples were derived from the same distribution. Analyses were carried out for the marital status of parents and proved non-significant for all groups on all scales. Therefore the null hypothesis was retained thus indicating that a comparison of the various subgroups (marital status) did not differ significantly in terms of family conflict style. Regarding the relationship with the parents, significant differences were indicated for all scale means for the four different groups. Therefore the null hypothesis was rejected in favour of the alternative hypothesis indicating that a comparison of the various subgroups (relationship with parents) did differ significantly in terms of family conflict style.

Next, I will turn my attention to assessing whether family conflict style is associated with family commitment. I will do this by means of the third set of hypotheses. It should be noted that the description of the family commitment scale is presented in a study by Human-Vogel (2013). The third set of hypotheses discussed below will address the sub question which asks how adaptive and maladaptive family conflict styles are related to family commitment.

3.6.5.4 Third Set of Hypotheses: Correlations (Spearman's Rho)

Hypotheses were formulated to test the linear relationship between variables in the study. Non-parametric equivalent, in terms of the Spearman rank order correlation coefficient (Rho) was used to do a correlational analysis (Fabrigar & Wegener, 2012). The following null and alternative hypotheses were investigated:

- **Null Hypothesis: $H_0 : \rho_{xy} = 0$**

There is no relationship between family conflict style and family commitment.

- **Alternative Hypothesis: $H_A : \rho_{xy} \neq 0$**

There are statistically significant relationships between family conflict style and family commitment.

In order to investigate the linear relationships between family conflict style and family commitment the Spearman Rho was calculated. Table 3.25 displays the Spearman Rho correlations between family conflict style and commitment level.

TABLE 3.25: Spearman's Rho correlations

Spearman's Rho		Adaptive Validator	Maladaptive Hostile Detached	Maladaptive Hostile Engaged	Level of Commitment	Cohesion	Loyalty	independence	Meaningfulness
Adaptive (Validator)	Correlation Coefficient	1.000	-.573**	-.587**	.533**	.444**	-.310**	-.362**	.525**
	Sig. (2-tailed)	.	.000	.000	.000	.000	.000	.000	.000
	N	201	198	199	197	197	198	196	197
Maladaptive (Hostile Detached)	Correlation Coefficient		1.000	.754**	-.459**	-.366**	.453**	.471**	-.488**
	Sig. (2-tailed)		.	.000	.000	.000	.000	.000	.000
	N		200	198	196	196	197	195	196
Maladaptive (Hostile Engaged)	Correlation Coefficient			1.000	-.541**	-.454**	.498**	.507**	-.573**
	Sig. (2-tailed)			.	.000	.000	.000	.000	.000
	N				197	197	198	197	197
Level of Commitment	Correlation Coefficient				1.000	.699**	-.487**	-.561**	.740**
	Sig. (2-tailed)				.	.000	.000	.000	.000
	N				200	197	198	196	197
Commitment Cohesion (CC)	Correlation Coefficient					1.000	-.488**	-.541**	.727**
	Sig. (2-tailed)					.	.000	.000	.000
	N					200	198	196	198
Quality of Alternatives Loyalty (QL)	Correlation Coefficient						1.000	.572**	-.557**
	Sig. (2-tailed)						.	.000	.000
	N						201	197	198
Quality of Alternatives – Independence (QI)	Correlation Coefficient							1.000	-.579**
	Sig. (2-tailed)							.	.000
	N							199	196
Commitment Meaningfulness (CM)	Correlation Coefficient								1.000
	Sig. (2-tailed)								.
	N								200

**. Correlation is significant at the 0.01 level (2-tailed).
*p< .05; **p<.01; ***p< .001

All correlations between family conflict style and family commitment were found to be significant at the .01 level. It should also be noted that the direction of the correlations were in the expected directions. Thus, the Adaptive Validator style was positively correlated with Level of Commitment (CL), Connectedness (CSS) and Meaningfulness (CM) and negatively correlated with the Quality of Alternatives scales (QAL and QAI). On the other hand, the Maladaptive Hostile-Engaged and Hostile-Detached Scales were found to negatively correlate with Level of Commitment (CL), Connectedness (CSS) and Meaningfulness (CM) and positively correlate with the Quality of Alternatives scales (QAL and QAI). Therefore construct-related validity of the scale is supported.

3.7 CONCLUSION

Throughout this chapter quantitative research enabled me to answer my research question as to whether a theoretical relationship exists between family conflict styles and commitment to the family of origin. The criteria (validity and reliability) used in a quantitative study was discussed in depth as well as the process of scale development in order to understand the steps involved in constructing the Family Conflict Scale (FCS). The items of the scale were then piloted and item analysis was used to assess internal consistency of the initial item pool. Piloting the scale resulted in a more refined and reliable scale thus being used in the main study. The main study was conducted to reassess the reliability of the scale, to assess construct validity, as well as to answer the research questions by testing certain hypotheses.

The scale properties of the Family Conflict Scale (FCS) were examined and the alpha for the full scale proved to be acceptable at 0.75. Factor analysis was used to assess dimensionality and construct validity. Variables were then grouped together to determine a number of constructs which had something in common and to explain patterns in item correlations. The Kaiser criterion and the Cattell criteria both suggested a three factor solution would fit the data well. Factor one corresponded to the Adaptive Validator style, factor two corresponded to the Maladaptive Hostile-engaged style and factor three corresponded to the Maladaptive Hostile-detached style.

Next, the scale scores were calculated to assess the normality of the score distributions. The data proved to be skewed and therefore non-parametric equivalents were used to assess the hypotheses. The Mann Whitney U test was used to assess the first set of hypotheses. No

significant differences were reported for any subgroup analyses. The null hypotheses was accepted thus indicating that subgroups (gender, age and relationship status) analysed in the study did not differ significantly in terms of conflict styles. The Kruskal – Wallis H test was used to assess the second set of hypotheses. The analyses carried out for the marital status of parents proved non-significant for all groups on the scale. Therefore, the null hypotheses was retained indicating that a comparison of various subgroups (marital status, language, qualifications) did not differ significantly in terms of conflict styles. The relationship of the parents however, proved to show significant differences, therefore the null hypotheses was rejected in favour of the alternative hypotheses.

Lastly, Spearman's Rho was used to assess the third set of hypotheses which tests the linear relationship between the main variables under study (conflict styles and commitment to the family). The null hypotheses was rejected in favour of the alternative hypotheses thus indicating statistically significant relationships between conflict style and commitment level. The Adaptive Validator style proved to be positively correlated with level of commitment, connectedness and meaningfulness and negatively correlated with the quality of alternatives scales. On the other hand, the Maladaptive Hostile-Engaged and Hostile-Detached Scales were found to negatively correlate with level of commitment, connectedness and meaningfulness and positively correlate with the quality of alternatives scales.

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CHAPTER 4

Discussion of Results, Interpretation, Contributions, Limitations and Recommendations

4.1 INTRODUCTION

The aim of the present exploratory study was to examine family conflict style as a correlate of commitment to the family of origin and to develop a scale which measures conflict style within one's family of origin. The relationship between conflict style and family commitment was investigated with the primary research question being asked: *What is the relationship between family conflict style and commitment to the family of origin?* The primary research question also consisted of several sub questions which will be answered later in the chapter:

1. *How can family conflict styles be measured?*
2. How do demographic variables such as gender, age and relationship status differ in terms of young adults' experience of family conflict?
3. How do family factors such as parent's marital status and relationship with parents' differ in terms of family conflict?
4. How are adaptive and maladaptive family conflict styles related to family commitment?

A quantitative research approach was the methodological paradigm that framed the present study in order to explore the association between family conflict style and commitment to the family of origin through the formulation of three hypotheses. In Chapter Two, I argued that family conflict and commitment were theoretically related. Quantitative research enabled me answer the research questions by exploring statistical relationships between the two constructs, family conflict style and commitment to the family of origin.

My sample consisted of young adults, between the ages of 18 and 25, living within Pretoria and studying at a university. Young adults best represented the sample for the present study as I argued that young adults strived to attain self-differentiation while still maintaining healthy associations with their family of origin (McGoldrick & Shibusawa, 2012). The sample was selected using a one-stage random cluster as it proved to be more practical and cost-effective

(Nieuwenhuis, 2007). A cluster represented an undergraduate model at the university and the clusters were selected at random until sample size requirements were met (N = 200).

Surveys were utilised to collect the data in the present study which comprised of two scales, namely the Family Conflict Scale (development of this scale can be found in the next section 4.2) and the Family Commitment Scale (adapted from Rusbult's Investment Model and can be found in a study presented by Human-Vogel, 2013). SPSS was used in the present study to analyse the data collected. The results yielded significant results which will be further discussed in the present study (section 4.3).

As argued in Chapter One, the figure below (Figure 4.1) provided the conceptual framework and outlined the expected relationships among the constructs under study (family conflict style and level of commitment). Commitment to one's family could be negatively affected should the family develop a maladaptive conflict style, whereas a positive association was hypothesized with adaptive conflict styles.

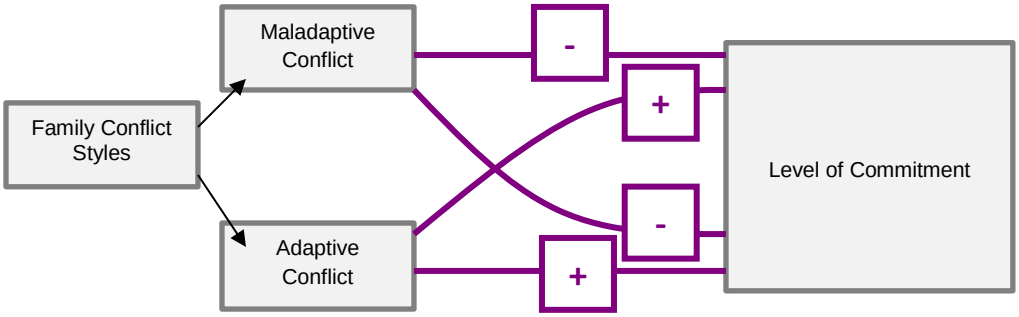

Figure 4.1: Conceptual Framework

4.2 DISCUSSION OF MAIN FINDINGS

4.2.1 Development of the Family Conflict Scale (FCS)

Two scales were used in the present study to collect data namely, the Family Conflict Style Scale (FCS) and the Family Commitment Scale (FC). The Family Conflict Scale (FCS) was derived from Gottman's (1993) definitions of couple conflict styles (as discussed in Chapter

Two). The Family Conflict Scale (FCS) was initially piloted in 2009 which consisted of seven items for each of the five conflict styles (validator, avoidant, volatile, hostile-engaged and hostile-detached) thus reflecting a total of 35 items. Findings from the pilot study resulted in a more refined questionnaire; six items were selected for deletion from the initial pool of 35 items (Annexure 2). The remaining 29 items resulted in good overall alpha coefficients (α = 0.75) for the main study. Specifically, the Avoidant scale showed unacceptably low item-total correlations, thus it was decided to omit the whole scale (Avoidant) from the main study as it proved to demonstrate low reliability and low item total correlations (as per findings from the pilot study). The new adapted scale was then utilised for the main study (29 items, n = 190) and the alpha (α = 0.75) proved to be acceptable (.80>α ≥ .70) according to the recommendations in the literature (Fabrigar & Wegener, 2012).

The Family Commitment Scale (FC) is an adaptation of Rusbult's (1998) Investment Model Commitment scale. The scale consisted of four subscales, namely Commitment Level (7 items), Commitment Satisfaction (5 items), Commitment Quality of Alternatives (5 items) and Commitment Investment (5 items). The total scale consisted of 22 items. The reliability of the Family Commitment Scale (FC) was found to be generally acceptable, with results indicating a Cronbach's alpha of 0.837 (*N = 204)*. The Family Commitment Scale (FC) is described in Human-Vogel (2013).

4.2.2 Hypotheses

In the main study three sets of hypotheses were formulated with the aim of investigating the research questions thus testing subgroup differences on scale means in the study, and examining the statistical relationship between family conflict style and commitment to the family of origin. The following hypotheses were formulated to answer the research questions:

Hypotheses formulated to test the independence of two subgroups in the sample for gender and relationship status (Mann-Whitney U Test).

- Sub question 2: *How do demographic variables such as gender, age and relationship status differ in terms of young adults' experience of family conflict?*

Hypotheses formulated to test analysis of variance by testing sub-group differences in scale means for three or more subgroups, including marital status of parents, and relationship with parents (Kruskal-Wallis H).

- Sub question 3: *How do family factors such as parent's marital status and relationship with parents differ in terms of family conflict?*

Hypotheses formulated to test the linear relationship between the constructs, in the study (Spearman's Rho).

- Sub question 4: *How are adaptive and maladaptive family conflict styles related to family commitment?*

The following paragraphs will discuss the findings according to the research questions and explain their theoretical meaning. Finally, the limitations, contributions and recommendations for further research will be discussed.

4.2.3 Demographic findings

The Mann-Whitney U Test was used to analyse sub question one: *How do demographic variables such as gender, age and relationship status differ in terms of young adults' experience of family conflict?*

Firstly, demographic information obtained indicated that gender (being male or female) proved to have no significant differences with regards to the conflict style the family adopted (adaptive or maladaptive) which appear to contradict findings reported in the literature (Larson, Taggart-Reedy & Wilson, 2001; Holt & DeVore, 2005; Kim-Jo, Benet-Martinez, & Ozer, 2010; Simon & Furman, 2010). Larson et al. (2001) examined perceived dysfunctional family of origin rules on dating relationships of young adults between the ages of 17-25 and studying at a university (thus similar to the sample in the present study) and found that gender differences in young adults' relationship development and conflict style arose due to basic differences in the identity for men and women. Additionally, a study on interparental conflict and adolescents' romantic relationship conflict indicated that differences in gender socialisation could lead men and women to react differently when confronted with conflict (Simon & Furman, 2010). Kim-Jo et al. (2010) further elaborate on gender and cultural differences as they examined cultural and gender variations in conflict resolution styles. Males were more likely than females to engage in a competing conflict resolution style.

Despite all the gender differences found in existing literature, I argue that family conflict style is more dependent on the parents (marital spillover hypothesis) rather than personal experience of men and women. Thus, despite the various differences reported in literature, my findings

showed no gender differences in how the respondents reported their family conflict style, therefore providing support for the fact that they (respondents) reported on family conflict style, not personal experience of interpersonal conflict or even personal conflict style. Therefore, in essence I argue that their experiences were not coloured as being male or female but rather was reported as an objective experience of family conflict.

When looking at age as a demographic variable, the findings in the present study indicated that age was not a factor in how the respondents experienced family conflict style within their family of origin. Most of the literature reviewed (Jaycox & Repetti, 1993; Katz & Gottman, 1997; Gerard, Krishnakumar, & Buehler, 2006; Chung, Flook & Fulingi, 2009; Lee, Lun, Cheung & Yung, 2010) extensively studied the spillover effects of marital and family conflict on children (ages 5-11 years) and adolescents (11-16 year olds). Jaycox and Repetti (1993) examined the correlation between conflict in families and child psychological adjustment and found that preadolescent children that were openly exposed to anger and conflict appeared to be less adjusted and displayed externalising behaviour. Further research conducted to investigate buffering strategies for children exposed to extreme conflict within the family found that regardless of the strategies, maladaptive conflict continues to be associated with detrimental outcomes for the children involved (Katz & Gottman, 1997). Marital conflict, parent-child relations and spillover effects to youth maladjustment further supported the preceding argument (Gerard et al. 2006). Chung, Flook and Fuligni (2009) build on studies investigating ethnic variations in family conflict and found that regardless of age and ethnicity, low family cohesion and conflict negatively impacted a child's well-being. However, limited research, to my knowledge, exists with regards to specific age groups as a correlate to family conflict. In a comparable study conducted by Larson et al. (2001), 83% of the respondents (young adults, between the ages of 17 and 25, studying at a university) reported not living at home anymore. Consequently, most of them were experiencing a new lifestyle away from their family of origin and possible dysfunctional environments. Therefore it should be noted that the target population in the present study also consisted of young adults, studying at a university, and possibly differentiating themselves from their family or origin.

The way conflict is resolved is central to understanding the functioning, quality and maintenance of romantic relationships (Gottman, 1994). In relation to demographic variables such as relationship status, the majority of young adults in the present study reported being involved in a relationship, however, the respondents' experience of family conflict was not associated with the

way conflict was solved in the family of origin. An interesting finding however, was that it mattered whether the respondents' described their relationship as either casual or committed. Those who were involved in casual relationships were more likely to report maladaptive family conflict styles, possibly suggesting that young adults who experience maladaptive conflict at home, might avoid long term commitments. The study conducted by Larson et al. (2001) adds credence to this finding by reporting a significant relation between dysfunctional family conflict and relationship commitment. Larson et al.'s (2001) findings indicated lower levels of commitment and relationship satisfaction when exposed to dysfunctional family rules and conflict. Similarly, functional family conflict resulted in higher levels of commitment and better relationship satisfaction (Larson et al., 2001). Salvatore, Kuo, Steele, Simpson and Collins (2011) studied romantic relationships with a population of 73 young adults, furthermore, investigating exposure to conflict and its implications. Their findings indicated that failing to effectively disengage from a conflicting situation could have negative and detrimental implications on relationship functioning. Various literature (Larson et al. 2001; Weigel et al. 2003; Simon & Furman, 2010; Gubbins, Perosa & Bartle-Haring, 2010) further indicate correlations between conflict and relationship functioning.

Therefore, in answering sub question one (*how do demographic variables such as gender, age and relationship status differ in terms of young adults' experience of family conflict)* results indicated that gender and age played no role in how the respondents reported conflict within their family of origin. However, whether they were involved in a relationship (committed or casual) did appear to be related to the family conflict styles, so that respondents in casual relationships were more likely to report maladaptive conflict style within their family.

The Kruskal-Wallis H Test was used to answer sub question two: *How do family factors such as parent's marital status and relationship with parents' differ in terms of family conflict?*

Analyses were carried out in the present study to assess whether the marital status of parents impacted the conflict style the respondents experienced. Results indicated that the marital status did not appear to influence the conflict style the family adopted. This is a perplexing finding as literature reviewed in Chapter Two indicated otherwise. Gottman (1993), Gottman (1998) and Marchand (2004), focused solely on the effects of divorce on children and their adjustment and reported that children from divorced families were more likely to be exposed to a highly conflicted environment. However puzzling the finding, I argue that exposure to more

adaptive conflict styles within a committed marriage could aid in buffering children from the difficulties of family conflict. The insignificant difference could also be argued to relate to the unequal distribution of the sample population, subsequently influencing the comparison.

According to Gerard et al. (2009), parent-child relationships can be seen as "a key linking mechanism in the association between marital conflict and children's maladjustment" (p. 953). Similarly, the findings in the present study indicated that parent-child relationships impacted how the respondents reported conflict style within their family. Therefore, a comparison of the various relationship groups (uncomplicated supportive, complicated tense, distant uninvolved, and close involved) indicated significant findings in how family conflict was experienced. Marital hostility and maladaptive conflict lead to the transfer of anger and tension to the parent-child relationship thus resulting in a complicated, tense, distant and uninvolved relationship. Moreover, it is reported in the literature review in Chapter Two that the marital spillover hypothesis (Gerard et al. 2009) plays a vital role in understanding how marital hostility and conflict can be transferred to the entire family unit. Thus, taking into consideration the marital spillover hypothesis, maladaptive conflict and marital hostility influence the parent-child relationship and could potentially lead to a complicated, tense, distant and uninvolved relationship. Similarly, findings indicated that an adaptive conflict style resulted in a supportive, uncomplicated, close and involved relationship which in turn leads to higher satisfaction and commitment within one's family of origin. The family resilience framework (Walsh, 2003) discussed in Chapter Two further supports the interpretation that adaptive conflict resolution strategies that a family adopts, further fosters resilience. Marchand and Hock (2003) supported these findings by reporting that resiliency and positive parent-child relationships could act as a buffer against maladaptive child outcomes.

Thus, when looking at sub question two (*how do family factors such as parent's marital status and relationship with parents' differ in terms of family conflict)* the findings in the present study indicated that marital status of the parents played no role in how family conflict was experienced however, significant differences were found in terms of the parent- child relationship. The marital spillover hypothesis and the family resilience framework, as discussed in Chapter Two, serves as foundations in a better understanding of the findings. Maladaptive conflict style was found to be associated to a complicated, tense, distant and uninvolved relationship whereas an adaptive conflict style was found to be associated to an uncomplicated, supportive, close and involved

relationship. The following paragraphs will discuss how family conflict styles are related to family commitment.

4.2.4 Family conflict style and family commitment

The Spearman's Rho was used to answer sub question three: *How are adaptive and maladaptive family conflict styles related to family commitment?*

The findings in the present study indicated that all the patterns of correlations between family conflict and family commitment that were hypothesised in Chapter One, were supported and in the expected directions. Therefore, the scale measured what it intended to measure and conclusions can be drawn from the findings of the present study.

In the present study, the relationship between family conflict and family commitment was perceived as significant, thus, adaptive conflict style was observed to have a negative association to loyalty and independence (both previous quality of alternative scales) and a positive association to level of commitment, cohesion and meaningfulness. In essence, young adults who reported that they felt very committed to their family of origin were also likely to indicate high cohesiveness and generally felt that their families added meaning to their lives. Likewise, they were less likely to feel the need to spend time away from their family of origin and were not likely to report maladaptive family conflict styles. The findings additionally indicated that maladaptive conflict style had a positive association to loyalty and independence and a negative association to level of commitment, cohesion and meaningfulness. In essence, the more maladaptive conflict styles adopted by the family, the greater the desirability to spend time away from their family of origin, the lower the levels of commitment, and less likely to report high cohesiveness and meaningfulness. Rusbult et al.'s (1998) findings support the above mentioned associations as they reported that high levels of commitment were negatively associated to quality of alternatives and positively associated to satisfaction and investment. Furthermore, extensive review of the literature (Powell, 2009; Weigel et al. 2003; Etcheverry & Le, 2005) further lends credence in support of my findings by discussing how commitment and conflict are related. Weigel et al. (2003) studied family influences on commitment and stated that individuals from non-committed, divorced families were more likely to report problems, experience higher levels of conflict and displayed a lack of trust in their own personal relationships. Additionally, Powell (2009) conducted research on commitment in a marriage and found that commitment was highly associated to conflict within a marriage and a strong dedication in working through the conflict. Powell (2009) further highlighted the importance of positive (adaptive) conflict

resolution which in turn fosters higher levels of empathy, satisfaction and commitment. Therefore, as argued in Chapter Two, conflict within a family is inevitable, however high levels of commitment to one's family of origin are possible given more adaptive conflict styles.

Based on the conceptual framework (as seen in Figure 4.1 above), family conflict style and level of commitment to one's family of origin produced significant correlations. The more young adults reported high commitment to their family of origin, the less likely they were to report maladaptive conflict styles. Similarly, the more young adults reported low commitment to their family of origin, the less likely they were to report adaptive conflict styles. Thus, young adults reporting maladaptive conflict style within their family of origin will consequently report low commitment. On the other hand, adaptive conflict style would foster high levels of commitment and satisfaction in one's family of origin. In essence, maladaptive conflict (Hostile-engaged and Hostile-detached) was found to be associated with low levels of commitment whereas adaptive conflict (Validator) proved to be associated to high levels of commitment within one's family of origin.

In the sections to follow I will discuss the contributions of the present study, the limitations as well as recommendations for future studies.

4.3 CONTRIBUTIONS OF THE PRESENT STUDY

The findings generated in the present study provide us with an understanding of family conflict style and commitment to one's family of origin furthermore; demonstrating how family conflict style and commitment are correlated. Powell (2009) argues that family commitment is directly associated with the extent to which members dedicate themselves to making things work and to solve conflicts therefore, in essence the findings in the present study proved to be significant as adaptive family conflict style was highly correlated to level of commitment to one's family of origin. The results in the present study further contribute to certain literature on family commitment (Weigel et al. 2003; Larson et al. 2001) and family conflict (Gottman, 1993, 1994, 1998; Larson et al. 2001; Gubbins et al. 2010; Fincham, 2003) in several ways. Firstly, Weigel et al. (2003) conducted research on family of origin influences on commitment and found that individuals' perceptions of commitment are influenced by their experiences in their family of origin. Whether individuals persist in a relationship or not was determined by their perceptions of commitment in their family (Weigel et al. 2003). Noteworthy results were found in the present study reporting that relationship status (casual or committed) highly correlated to family conflict

and family commitment, thus individuals involved in casual relationships were more likely to report maladaptive family conflict styles and lowered levels of commitment. A similar study conducted by Larson et al. (2001) adds credence to these findings by reporting a significant relation between dysfunctional family conflict and relationship commitment. Dysfunctional family conflict was found to be associated to lower levels of commitment and relationship satisfaction; similarly, functional family conflict resulted in higher levels of commitment and better relationship satisfaction (Larson et al. 2001). Therefore, in essence, these significant findings highlight the fundamental influence that the family has on an individual – thus supporting the marital spillover hypothesis (Gerard et al. 2009) as argued in Chapter Two. The findings in the present study are suggestive of the fact that marital hostility and conflict have the potential to spill over to the entire family unit. The findings therefore support the premise that the transfer of anger and tension influences the overall parent-child interaction and impacts the way conflict is handled in the family as a unit. Similarly, the findings in the present study further contribute to the literature on the Family Resilience Framework (Walsh, 2003) as the results showed that an adaptive family conflict style fosters resilience which in turn improves the family's communication, commitment, cohesion and problem solving skills.

Secondly, the findings in the present study provide tentative evidence to suggest that Gottman's (1993) research on couple conflict can be extended beyond the marital dyad to reliably study conflict within the family unit. As argued in my literature review, Gottman (1993) defines couple conflict as either regulated (adaptive) or non-regulated (maladaptive), similarly Cummings et al. (2000) describes marital conflict as being normal and abnormal. However, extensive research (Gottman, 1993, Gottman, 1994, Gottman, 1998; Cummings, et al. 2000) on conflict omits to address certain aspects of family conflict, thus solely focusing on conflict within the marital dyad. The findings in the present study have contributed methodologically as conflict can now be studied and understood within a family structure, consequently contributing to existing literature on conflict (Gottman, 1993, Gottman, 1994, Gottman, 1998; Cummings, et al. 2000). Hence, in essence the present study additionally makes a significant contribution as the Family Conflict Scale (FCS) proposed and tested can be seen as a step towards a better understanding of conflict style within one's family of origin.

Thirdly, the present study has made a significant theoretical contribution to the measurement of family conflict style and can inform further developments as a new scale (Family Conflict Scale FCS) was developed to measure conflict style within the family context. Research on existing

family scales yielded either outdated measures; the McMaster Model of Family Functioning (Walsh, 2003) and the Family Assessment Measure (Skinner, Steinhauer & Sitarenios, 2000) or scales measuring family conflict within an organisational context; the Family Climate Scale (Björnberg & Nicholson, 2007) however, these measures are still largely supported by high reliability and validity estimates. The McMaster Model of Family Functioning (Walsh, 2003) focuses on dimensions of family functioning, specifically problem solving, communication, roles, affective responsiveness, affective involvement, behavioural control and general functioning. The McMaster Model of Family Functioning (Walsh, 2003) has been used broadly in a variety of family practice clinics (Walsh, 2003), and is also based on the systems approach. The Family Assessment Measure (Skinner et al. 2000) assesses family functioning according to seven key dimensions namely; task accomplishment, role performance, communication, affective expression, involvement, control, vales and norms. The reliability of this scale has proved to be very good in most contexts and provides significant information regarding family functioning. The Family Climate Scale (Björnberg & Nicholson, 2007) was designed to measure family processes particularly in the context of family business. The scale measures six areas of family processes namely, open communication, adaptability, intergenerational authority, intergenerational attention to needs, emotional cohesion, and cognitive cohesion (Björnberg & Nicholson, 2007). Looking at the preceding discussion on scales measuring family functioning, no scale to my knowledge exists that measures conflict styles within one's family or origin. Therefore, the high reliability and validity of Family Conflict Scale (FCS) reported in Chapter Three proves that the scale developed in the present study significantly contributes methodologically and practically to better understanding processes of family functioning.

Fourthly, the findings in the present study offers a strength based approach to the measurement of family conflict in that it demonstrates that not all conflict is negative, and offers a way of measuring family conflict. The findings in the present study support Gottman's (1993) essential argument that conflict can be adaptive and not only maladaptive, and extends Gottman's (1993) work by showing that adaptive conflict styles can be used to measure conflict within the family unit in addition to a marital dyad. For example, the positive association between the validator conflict style and meaningfulness suggests that family members can foster meaningful connections with their family members when adopting adaptive conflict styles that emphasise understanding, acceptance and compromise. In addition, other aspects of family functioning such as cohesion and feelings of connectedness can also be fostered in the presence of adaptive conflict. The implications of these findings are that professionals such as psychologists

and more specifically family therapists should pay close attention to the particular style of conflict that a family adopts. We know for example that the presence of conflict is often an indicator of difficult clinical families (Walsh, 2003), the findings of the present study suggests that therapists should not be too quick to assume pathology in the presence of conflict.

Lastly, the present study helps us to understand how family conflict styles can influence family commitment, as well as the likelihood that adults will be able to maintain their ties to the family of origin while leading independent lives. The sample population was specifically selected for the present study which consisted of young adults (between the ages of 18 and 25), living within Pretoria and studying at a university, thus possibly differentiating themselves from their family of origin however, still maintaining ties. Gubbins et al. (2010) conducted research looking at the relationships between marital couples' self-differentiation and Gottman's model of marital interactions and found that the couples' levels of self-differentiation from their families of origin were correlated with their levels of satisfaction experienced in the marriage. The findings from the present study expand on this existing literature by maintaining that an individual's self-differentiation from their family or origin (given the age of the sample population in the present study) is correlated to levels of commitment. Consequently, most of the respondents in the present study were experiencing a new lifestyle away from their family of origin and possible dysfunctional environments thus reported higher levels of commitment.

4.4 LIMITATIONS OF THE PRESENT STUDY

The aim of the present exploratory study was to examine family conflict style as a correlate of commitment to the family of origin and to develop a scale which measures conflict style within one's family of origin. Although the present study found encouraging and significant results, it is important to discuss the study's limitations. One of the limitations in the present study can be seen in the development a new scale to measure family conflict. Although the overall measure administered is promising (demonstrated good reliability and validity), more work can still be done to improve the scale. The one conflict subscale (Avoidant scale) showed fairly low reliability and low item-total correlations, thus had to be omitted from the main study. The items in this scale were written to be short and concise, therefore, a possible explanation for the results is that the items could perhaps have been ambiguous, rather than not being understood by the participants.

Another potential limitation in the present study is the data collection strategy. A one-stage random cluster sampling was used, which was more practical and cost-effective however, a notable limitation was the lack of representativeness. Descriptive results of the overall sample population (n = 204) indicated that the majority of the respondents were females (n = 166) – thus an unequal distribution, living within Pretoria, studying at a university with ages ranging between 18 and 25, of which the mean (*M*) age was calculated at 20.6.

Furthermore, the present study primarily focused on the marital sub system as having a significant influence on the whole system; however, I acknowledge that there are other fundamental aspects such as the life stage of the family, the developmental stages of the family members, and individual personalities (Walsh, 2003) which influence the system as a whole. This delimitation imposes further limitations to my study.

In the present study I examined the Family Conflict Scale (FCS) and the meaning of its constructs by correlating them with other constructs, thus the study was correlational and only included construct-related validity evidence. In order to strengthen the promising results, further validation on the Family Conflict Scale (FCS) is essential and future studies should consider other types of evidence (presented in the recommendations section below).

4.5 RECOMMENDATIONS FOR FUTURE STUDIES

Some direction for future research is recommended in light of the present findings:

- The present study proved to highlight some significant findings with regards to the demographic variables such as relationship status and parent-child relationships. However, the unequal distribution of subgroups in the present study rendered comparisons as faltering. Although the correlations between the study variables were high, a larger and more demographically balanced sample would increase the reliability and validity of the study.
- In the present study I examined the new Family Conflict Scale (FCS) and the meaning of its constructs by correlating them with other constructs without making generalisations to the wider population, thus using construct-related validity (Kaplan & Saccuzzo, 2012). Therefore, as a researcher I thoroughly reviewed existing literature on the construct under study, defined the construct (family conflict) and subsequently developed an instrumentation to measure the construct (Family Conflict Scale FCS). However, the

Family Conflict Scale (FCS) is not perfect and yielded some limitations in the sense that a sub scale (Avoidant Scale) was omitted due to the ambiguity of the items. Kaplan and Saccuzzo (2012) argue that gathering construct related validity is an ongoing process therefore; future studies could make use of other types of validity to better improve the scale. Content related validity could be used which refers to the degree to which a measure represents all possible aspects of the given constructs (Hoyt & Chu, 2006). In this instance, future researchers could reconsider the wording of the items written for the Family Conflict Scale (FCS) thus improving the validity and reliability of the scale.

- The sample population was also limited to specific criteria (university students between the ages of 18 and 25); therefore in order to improve statistical power and interpretations, a more diverse sample population, including individuals outside of a university context, could be considered.
- Questions developed for the Family Conflict Scale (FCS) can be reworked and written in a way that does not appear to be ambiguous or too concise in order to better define each conflict style thus eliminating any faltering scales (such as the Avoidant Scale in the present study). Furthermore, extending the scale with qualitative open ended questions, for example a question such as *"How is conflict handled within your family of origin?"* will provide insight into one's family structure and their personal experiences of conflict within their family of origin.

4.6 CONCLUSION

The purpose of the present exploratory study was to investigate family conflict styles as a correlate of commitment to one's family of origin and to develop a scale that would measure family conflict styles. The proposal stemmed from an Honours study conducted in 2009 to better provide insight into why adults choose to maintain family ties irrespective of the difficulties they face. A thorough literature review on conflict styles and family commitment led to the primary suggestion of the current study: family conflict style influences and is correlated to one's level of commitment to their family of origin.

The research questions and the tested hypotheses presented in Chapter One supported many of the outcomes that were predicted. The overall argument in the present study was that more adaptive conflict styles would correlate to higher levels of commitment to one's family of origin and better satisfaction and vice versa for maladaptive conflict styles (lower levels of commitment and less satisfaction within the family of origin).

The current study expanded on existing literature (Gottman, 1993; Gottman, 1994; Gottman, 1998; Cann et al. 2008) by offering a scale that measures conflict within a family, thus expanding the research on couple conflict beyond the marital dyad and reliably studies conflict within the family unit.

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ANNEXURE 1

(Demographic Information)

DEMOGRAPHIC INFORMATION

1. What is your sex? Male [1] Female [2] V1

2. How old are you (completed years)? _____ years V2

3. What is your home language? (If more than one, choose language spoken most) V3

Afrikaans	1	English	2	Sepedi	3	IsiZulu	4
Sesotho	5	SiSwati	6	IsiXhosa	7	IsiNdebele	8
Setswana	9	Tshivenda	10	Xitsonga	11	Other	12

If other, please specify: _____

4. What is the highest qualification you have completed? V4

Grade 10	1	Grade 11	2	Grade 12/Senior Certificate	3	Degree/ Diploma (Matric + 3 years)	4
Honours (Matric + 4 years)	5	Masters (Matric + 5 years)	6	Doctoral	7		

5. Are you involved in a relationship? Yes [1] No [2] V5

If yes, how would you describe this relationship? Casual [1] Committed [2] V6

6. What is your parents' marital status? V7

Married	1	Separated	2	Divorced	3	Remarried	4
Deceased	5						

7. How would you describe your relationship with your parents in general? V8

Uncomplicated Supportive	1	Complicated Tense	2	Distant Uninvolved	3	Close Involved	4

ANNEXURE 2

(Revised Piloted Scale)

Please indicate whether you agree with the following statements. Make sure that you circle an **answer for each item**. Pay **close attention** because the meaning of some items are **reversed**.

	Strongly disagree	Disagree	Slightly disagree	Slightly Agree	Agree	Strongly Agree	
In my family we...							
talk through differences respectfully.	☐	☐	☐	☐	☐	☐	V30
largely ignore each other except for occasional attacks.	☐	☐	☐	☐	☐	☐	V31
attack each other personally in an argument.	☐	☐	☐	☐	☐	☐	V32
value arguing as a way of resolving issues.	☐	☐	☐	☐	☐	☐	V33
accept someone else's point of view even if we don't agree.	☐	☐	☐	☐	☐	☐	V34
try hard to persuade each other of our own point of view.	☐	☐	☐	☐	☐	☐	V35
try to inflict pain on each other during arguments.	☐	☐	☐	☐	☐	☐	V36
are emotionally uninvolved with each other.	☐	☐	☐	☐	☐	☐	V37
we love each other even though we have strong arguments.	☐	☐	☐	☐	☐	☐	V38
express our differences loudly.	☐	☐	☐	☐	☐	☐	V39
are aggressive (verbally/physically) during disagreements.	☐	☐	☐	☐	☐	☐	V40
can't stand each other so we prefer to avoid each other.	☐	☐	☐	☐	☐	☐	V41
are comfortable with having heated arguments.	☐	☐	☐	☐	☐	☐	V42
disrespect and insult each other when disagreeing.	☐	☐	☐	☐	☐	☐	V43
prefer not to be involved in each other's lives.	☐	☐	☐	☐	☐	☐	V44
believe in openly discussing issues to resolve them.	☐	☐	☐	☐	☐	☐	V45
we show understanding for each other even when we disagree.	☐	☐	☐	☐	☐	☐	V46
we can argue passionately about our differences.	☐	☐	☐	☐	☐	☐	V47

criticise or blame each other during disagreements.	☐	☐	☐	☐	☐	☐	V48
ignore each other during times of conflict.	☐	☐	☐	☐	☐	☐	V49
In my family we…	Strongly disagree	Disagree	Slightly disagree	Slightly Agree	Agree	Strongly Agree	
discuss matters calmly and listen to each other.	☐	☐	☐	☐	☐	☐	V50
enjoy having a good argument.	☐	☐	☐	☐	☐	☐	V51
have to continually defend ourselves strongly in arguments.	☐	☐	☐	☐	☐	☐	V52
try to hurt people by ignoring what is important to them.	☐	☐	☐	☐	☐	☐	V53
try to find a compromise that suits all of us.	☐	☐	☐	☐	☐	☐	V54
we don't feel intimidated by strong arguments.	☐	☐	☐	☐	☐	☐	V55
never really address the contempt we feel for each other.	☐	☐	☐	☐	☐	☐	V56
we feel energised when we have strong disagreements.	☐	☐	☐	☐	☐	☐	V57
listen to each other's point of view during an argument.	☐	☐	☐	☐	☐	☐	V58

ANNEXURE 3

(Family Commitment Scale)

	Strongly disagree	Disagree	Slightly disagree	Slightly Agree	Agree	Strongly Agree	
I feel very involved with my family of origin – I put a lot of time into my relationships with family members.	☐	☐	☐	☐	☐	☐	V72
Compared to other people I know, I have invested a lot in my family.	☐	☐	☐	☐	☐	☐	V73
I am committed to keeping my family together.	☐	☐	☐	☐	☐	☐	V74
I feel very attached to my family – very strongly linked together.	☐	☐	☐	☐	☐	☐	V75
My family makes me very happy.	☐	☐	☐	☐	☐	☐	V76
I want relationships with my family to last forever.	☐	☐	☐	☐	☐	☐	V77
I have invested a lot in family relationships that I would lose if my family were to fall apart.	☐	☐	☐	☐	☐	☐	V78
In my family we can depend on each other for love and support.	☐	☐	☐	☐	☐	☐	V79
I feel like I belong in my family.	☐	☐	☐	☐	☐	☐	V80
In my family we feel committed to other family members.	☐	☐	☐	☐	☐	☐	V81
In my family we can always count on each other.	☐	☐	☐	☐	☐	☐	V82

	Strongly disagree	Disagree	Slightly disagree	Slightly Agree	Agree	Strongly Agree	
I would be as happy with any other family than my own.	☐	☐	☐	☐	☐	☐	V83
It is likely that I will break contact with my family members within the next year.	☐	☐	☐	☐	☐	☐	V84
My needs for support and belonging could easily be fulfilled by any other family than my own.	☐	☐	☐	☐	☐	☐	V85
I would not feel very upset if I were to lose my family.	☐	☐	☐	☐	☐	☐	V86

Another family could have done a much better job of raising me.	☐	☐	☐	☐	☐	☐	V87
If I could, I would choose to have a different family.	☐	☐	☐	☐	☐	☐	V88
I would be much better off with another family.	☐	☐	☐	☐	☐	☐	V89

	Strongly disagree	Disagree	Slightly disagree	Slightly Agree	Agree	Strongly Agree	
The alternatives to my family are close to ideal.	☐	☐	☐	☐	☐	☐	V90
My alternatives to my family are attractive to me (work, spending time with friends or on my own, etc.)	☐	☐	☐	☐	☐	☐	V91
I prefer to spend time with friends rather than with my family.	☐	☐	☐	☐	☐	☐	V92
The prefer the company of my friends to that of my parents.	☐	☐	☐	☐	☐	☐	V93
I would rather spend more time getting to know other people than spending time with my family.	☐	☐	☐	☐	☐	☐	V94
I rather want to pursue my own interests than spend time with my family.	☐	☐	☐	☐	☐	☐	V95

	Strongly disagree	Disagree	Slightly disagree	Slightly Agree	Agree	Strongly Agree	
My relationships with my family would be complicated if my family were to fall apart.	☐	☐	☐	☐	☐	☐	V96
My family is much better than others' family.	☐	☐	☐	☐	☐	☐	V97
Many aspects of my life are linked to my family (recreational activities, etc) and I would lose all this if I were to lose my family.	☐	☐	☐	☐	☐	☐	V98
I rely a lot on my family members for love and support.	☐	☐	☐	☐	☐	☐	V99

If I lost my family, I would lose my greatest source of support and belonging.	☐	☐	☐	☐	☐	☐	V100
I can hardly imagine my life without the love and support of my family.	☐	☐	☐	☐	☐	☐	V101
My daily life is so connected to my family, I would feel empty without them.	☐	☐	☐	☐	☐	☐	V102
Hardly a day goes by that I do not talk to one of my family members.	☐	☐	☐	☐	☐	☐	V103
My family members are my greatest supporters.	☐	☐	☐	☐	☐	☐	V104

ANNEXURE 4

(Informed Consent)

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Education

Dear Participant,

We would like to invite you to participate in a study about justice, family commitment and relations, meaningfulness and personal well-being. We are student-researchers who are conducting research to fulfill the requirements for completion of a dissertation in the MEd (Educational Psychology) degree. We are interested in understanding how personal beliefs, family experiences and family functioning can impact on the way young adults perceive relationships with their family of origin. The results of this study will be presented in a mini-dissertation and may be submitted for publication in an academic journal.

Although we will ask you questions about your gender, age and other personal information, it is very important for you to note that this study is completely anonymous and we will not gather any information that will allow you to be identified by anyone. You do not have to record your name anywhere on the questionnaire your identity will remain anonymous to us, or anyone else at the University. We analyse the data statistically and therefore we can assure you of complete anonymity.

Your participation remains voluntary, meaning you do not have to participate if you don't want to. If you decide not to participate, you can simply return an empty questionnaire so it can be used at another time for another participant, but we hope you will assist us with this study. If you agree to assist us with this study, please complete the attached questionnaire carefully. It should take about 40 minutes of your time. We are not aware of any risk related to participating in this anonymous study, and completing this questionnaire does not carry any significant risk beyond that which you may encounter as a result of daily life.

There are some questions that are more personal than others, and that may trigger negative emotions. If you find this to be the case, please write down your **cellphone number only** on the questionnaire before returning it, and we will sms you the name and contact number of the campus counsellor.

This study was reviewed and has received approval from the Faculty of Education Ethics Committee. If you have any questions about the study, you are welcome to contact the Ethics committee (ethics.education@up.ac.za).

Yours Sincerely

Dr Salomé Human-Vogel

ANNEXURE 5

(Statistical Data)

Reliability

Notes

Output Created		28-Nov-2011 11:16:12
Comments		
Input	Data	C:\Users\User\Documents\Researchsupervision\MikhailJansen\2011\Mikelinadata.sav
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	Split File	<none>
	N of Rows in Working Data File	204
	Matrix Input	
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	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=VA_1 HD_1 HE_1 VO_1 VA_2 VO_2 HE_2 HD_2 VA_3 VO_3 HE_3 HD_3 VO_4 HE_4 HD_4 VA_4 VA_5 VO_5 HE_5 HD_5 VA_6 VO_6 HE_6 HD_6 VA_7 VO_7 HD_7 VO_8 VA_8 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA /STATISTICS=DESCRIPTIVE SCALE /SUMMARY=TOTAL.
Resources	Processor Time	00 00:00:00.016
	Elapsed Time	00 00:00:00.013

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	190	93.1
	Excluded[a]	14	6.9
	Total	204	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.748	29

Item Statistics

	Mean	Std. Deviation	N
VA_1	4.61	1.304	190
HD_1	2.02	1.279	190
HE_1	2.06	1.344	190
VO_1	2.99	1.510	190
VA_2	4.29	1.343	190
VO_2	3.69	1.335	190
HE_2	2.11	1.384	190
HD_2	2.26	1.557	190
VA_3	5.22	1.079	190
VO_3	3.86	1.413	190
HE_3	2.09	1.371	190
HD_3	1.63	1.084	190
VO_4	2.29	1.401	190
HE_4	1.79	1.152	190
HD_4	1.82	1.240	190
VA_4	4.66	1.437	190
VA_5	4.63	1.222	190
VO_5	4.09	1.369	190
HE_5	2.66	1.524	190
HD_5	2.79	1.461	190
VA_6	4.57	1.282	190
VO_6	3.37	1.557	190
HE_6	2.92	1.485	190
HD_6	1.82	1.136	190
VA_7	4.48	1.344	190
VO_7	3.76	1.442	190
HD_7	2.82	1.395	190
VO_8	2.26	1.248	190
VA_8	4.57	1.265	190

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
VA_1	87.52	193.986	-.152	.764
HD_1	90.11	175.644	.380	.735
HE_1	90.06	173.181	.429	.731
VO_1	89.13	172.803	.380	.734
VA_2	87.84	189.502	-.031	.758
VO_2	88.44	176.141	.345	.736
HE_2	90.02	170.804	.482	.728
HD_2	89.87	176.443	.273	.741
VA_3	86.91	187.489	.051	.751
VO_3	88.27	174.261	.373	.734
HE_3	90.04	171.856	.457	.730
HD_3	90.49	177.955	.381	.736
VO_4	89.84	173.132	.408	.732
HE_4	90.33	174.053	.486	.730
HD_4	90.31	174.903	.418	.733
VA_4	87.46	192.356	-.107	.763
VA_5	87.49	194.569	-.173	.763
VO_5	88.03	179.724	.233	.743
HE_5	89.47	167.594	.513	.724
HD_5	89.34	176.637	.293	.739
VA_6	87.55	190.841	-.066	.759
VO_6	88.75	176.378	.274	.741
HE_6	89.21	167.405	.535	.723
HD_6	90.31	175.060	.459	.732
VA_7	87.64	191.279	-.079	.760
VO_7	88.37	173.599	.381	.734
HD_7	89.31	176.457	.317	.738
VO_8	89.87	170.051	.570	.724
VA_8	87.56	192.872	-.123	.762

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
92.13	190.153	13.790	29

Factor Analysis

Notes

Output Created		28-Nov-2011 11:18:34
Comments		
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	Split File	<none>
	N of Rows in Working Data File	204
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES VA_1 HD_1 HE_1 VO_1 VA_2 VO_2 HE_2 HD_2 VA_3 VO_3 HE_3 HD_3 VO_4 HE_4 HD_4 VA_4 VA_5 VO_5 HE_5 HD_5 VA_6 VO_6 HE_6 HD_6 VA_7 VO_7 HD_7 VO_8 VA_8 /MISSING LISTWISE /ANALYSIS VA_1 HD_1 HE_1 VO_1 VA_2 VO_2 HE_2 HD_2 VA_3 VO_3 HE_3 HD_3 VO_4 HE_4 HD_4 VA_4 VA_5 VO_5 HE_5 HD_5 VA_6 VO_6 HE_6 HD_6 VA_7 VO_7 HD_7 VO_8 VA_8 /PRINT INITIAL KMO EXTRACTION ROTATION /FORMAT SORT BLANK(.30) /PLOT EIGEN /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) /ROTATION PROMAX(4) /METHOD=CORRELATION.
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KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.890
Bartlett's Test of Sphericity	Approx. Chi-Square	2634.430
	df	406
	Sig.	.000

Communalities

	Initial	Extraction
VA_1	1.000	.612
HD_1	1.000	.489
HE_1	1.000	.711
VO_1	1.000	.556
VA_2	1.000	.647
VO_2	1.000	.709
HE_2	1.000	.712
HD_2	1.000	.514
VA_3	1.000	.594
VO_3	1.000	.551
HE_3	1.000	.692
HD_3	1.000	.702
VO_4	1.000	.662
HE_4	1.000	.720
HD_4	1.000	.640
VA_4	1.000	.486
VA_5	1.000	.722
VO_5	1.000	.624
HE_5	1.000	.644
HD_5	1.000	.563
VA_6	1.000	.801
VO_6	1.000	.717
HE_6	1.000	.662
HD_6	1.000	.658
VA_7	1.000	.662
VO_7	1.000	.636
HD_7	1.000	.656
VO_8	1.000	.641
VA_8	1.000	.740

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings	
Component	Total	% of Variance	Cumulative %	Total	% of Variance
1	9.248	31.889	31.889	9.248	31.889
2	3.333	11.494	43.383	3.333	11.494
3	1.585	5.464	48.847	1.585	5.464
4	1.265	4.362	53.209	1.265	4.362
5	1.198	4.131	57.339	1.198	4.131
6	1.088	3.753	61.092	1.088	3.753
7	1.006	3.470	64.562	1.006	3.470
8	.900	3.104	67.666		
9	.833	2.872	70.537		
10	.776	2.677	73.214		
11	.752	2.592	75.806		
12	.643	2.218	78.024		
13	.592	2.042	80.066		
14	.574	1.979	82.044		
15	.528	1.822	83.867		
16	.522	1.802	85.668		
17	.483	1.664	87.332		
18	.464	1.601	88.933		
19	.424	1.460	90.393		
20	.395	1.363	91.756		
21	.376	1.295	93.051		
22	.358	1.235	94.286		
23	.295	1.018	95.304		
24	.292	1.006	96.310		
25	.246	.849	97.159		
26	.239	.824	97.983		
27	.237	.817	98.800		
28	.188	.649	99.449		
29	.160	.551	100.000		

Total Variance Explained

Component	Extraction Sums of Squared Loadings	Rotation Sums of Squared Loadings[a]
	Cumulative %	Total
1	31.889	8.374
2	43.383	6.342
3	48.847	5.673
4	53.209	3.367
5	57.339	2.632
6	61.092	1.648
7	64.562	1.592
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
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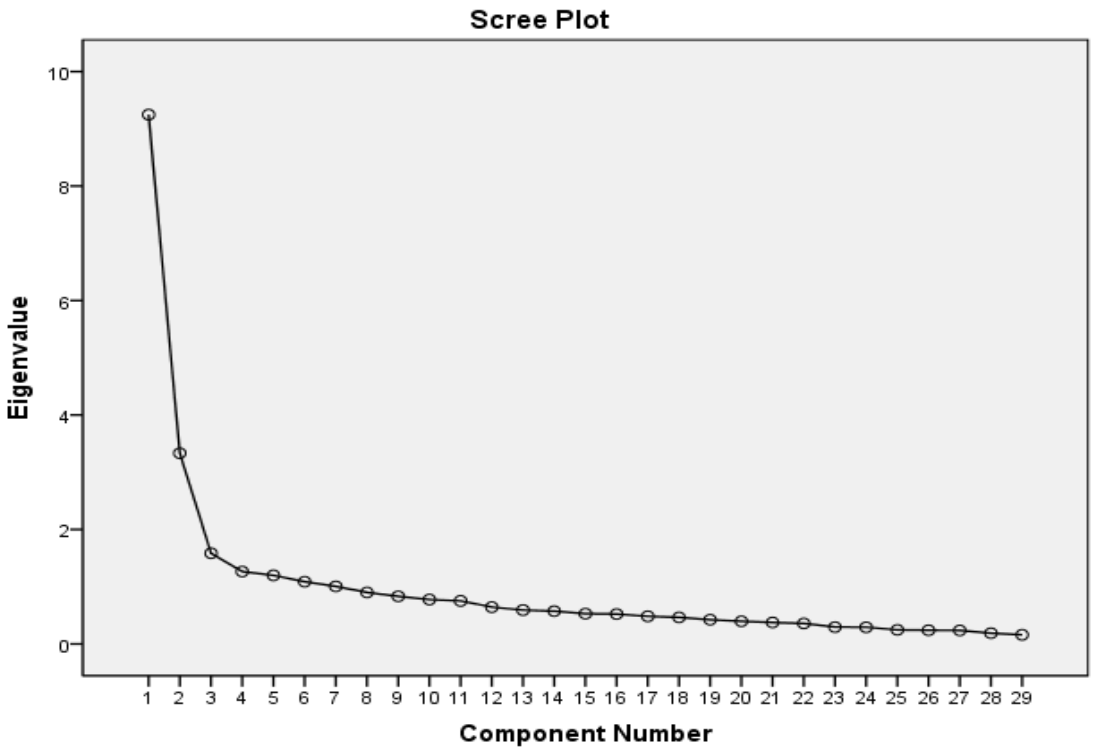
21		
22		
23		
24		
25		
26		
27		
28		
29		

Extraction Method: Principal Component Analysis.
a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.



Component Matrix[a]

	Component						
	1	2	3	4	5	6	7
HD_6	.778						
HE_1	.773						
HE_4	.760						
VA_5	-.745	.333					
HD_4	.715						
HE_5	.707						
HE_3	.706				.328		
HD_3	.704			.388			
VA_8	-.696	.369					
HE_2	.695				.322		
HD_1	.648						
HE_6	.628	.339					
HD_5	.623						.312
HD_2	.618						
VA_1	-.609	.309				-.322	
VA_6	-.597	.368	.456				
VA_4	-.533						
HD_7	.503		.365				.436
VA_2	-.479	.338			.325		.345
VA_7	-.466			.355		.364	
VO_5		.639					
VO_7		.623		.345			
VO_8	.404	.581					
VO_6		.563	.446				
VO_4		.497		.390	-.318		
VO_1		.479	-.448				
VO_3	.304	.390				.373	
VA_3	-.319	.352	-.440			.364	
VO_2		.342	-.373				.441

Extraction Method: Principal Component Analysis.
a. 7 components extracted.

Pattern Matrix[a]

	Component						
	1	2	3	4	5	6	7
HE_3	.972						
HE_2	.902						
HE_1	.796						
HD_2	.712						
HE_4	.692			.313			
HD_3	.674			.303			
HD_4	.629						
HD_6	.608						
HE_5	.546						
HD_1	.516						
VA_7		.904			-.386		
VA_8		.687					
VA_6		.657			.400		
VA_2		.652				.515	
VA_5		.601					
VO_7		.599	.458	.446			
VA_4		.570					
HD_7			.906				
HD_5			.639				
HE_6	.321		.457		.338		
VA_1		.319	-.404				
VO_4				.848			
VO_8				.559	.369		
VO_1				.554		.338	
VO_6					.868		
VO_5					.602		
VO_2						.823	
VO_3							.641
VA_3		.325					.640

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.
a. Rotation converged in 10 iterations.

Structure Matrix

	Component						
	1	2	3	4	5	6	7
HE_1	.800	-.533	.447				
HE_3	.797	-.408	.346	.303			
HD_6	.776	-.469	.590	.431			
HE_4	.776	-.440	.471	.547			
HE_2	.776	-.414	.372				
HD_4	.738	-.402	.544	.375			
HD_3	.736	-.396	.478	.477			
HE_5	.700	-.448	.572				.373
HD_2	.666	-.415	.440				
HD_1	.652	-.415	.567				
VA_8	-.548	.815	-.370		.480		
VA_5	-.599	.796	-.507		.439		
VA_6	-.397	.769	-.346		.615		
VA_7	-.372	.691					
VA_2	-.358	.628	-.376			.505	
VA_1	-.501	.613	-.586				
VA_4	-.394	.605	-.450				
HD_7	.417		.786				
HD_5	.496	-.493	.688				
HE_6	.611	-.350	.677				
VO_4				.795			
VO_8	.402		.428	.663	.334		
VO_1				.573		.481	.324
VO_7		.419	.305	.522			
VO_6					.823		

VO_5		.336			.662	.395	
VO_2						.778	
VO_3	.320						.644
VA_3		.342					.615

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

Component Correlation Matrix

Component	1	2	3	4	5	6	7
1	1.000	-.576	.624	.368	-.136	-.011	.086
2	-.576	1.000	-.434	-.084	.366	.071	-.115
3	.624	-.434	1.000	.341	-.063	-.133	.085
4	.368	-.084	.341	1.000	-.016	.141	.107
5	-.136	.366	-.063	-.016	1.000	.168	-.011
6	-.011	.071	-.133	.141	.168	1.000	.214
7	.086	-.115	.085	.107	-.011	.214	1.000

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

Factor Analysis

Notes

Output Created		28-Nov-2011 11:22:18
Comments		
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	Split File	<none>
	N of Rows in Working Data File	204
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.

Syntax		FACTOR /VARIABLES VA_1 HD_1 HE_1 VO_1 VA_2 VO_2 HE_2 HD_2 VA_3 VO_3 HE_3 HD_3 VO_4 HE_4 HD_4 VA_4 VA_5 VO_5 HE_5 HD_5 VA_6 VO_6 HD_6 VA_7 HD_7 VO_8 VA_8 /MISSING LISTWISE /ANALYSIS VA_1 HD_1 HE_1 VO_1 VA_2 VO_2 HE_2 HD_2 VA_3 VO_3 HE_3 HD_3 VO_4 HE_4 HD_4 VA_4 VA_5 VO_5 HE_5 HD_5 VA_6 VO_6 HD_6 VA_7 HD_7 VO_8 VA_8 /PRINT INITIAL KMO EXTRACTION ROTATION /FORMAT SORT BLANK(.30) /PLOT EIGEN /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) /ROTATION PROMAX(4) /METHOD=CORRELATION.
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	Elapsed Time	00 00:00:00.407
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KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.890
Bartlett's Test of Sphericity	Approx. Chi-Square	2404.349
	Df	351
	Sig.	.000

Communalities

	Initial	Extraction
VA_1	1.000	.603
HD_1	1.000	.516
HE_1	1.000	.695
VO_1	1.000	.550
VA_2	1.000	.591
VO_2	1.000	.711
HE_2	1.000	.679
HD_2	1.000	.547
VA_3	1.000	.589
VO_3	1.000	.553
HE_3	1.000	.620
HD_3	1.000	.687
VO_4	1.000	.691
HE_4	1.000	.741
HD_4	1.000	.643
VA_4	1.000	.483
VA_5	1.000	.730
VO_5	1.000	.627

HE_5	1.000	.623
HD_5	1.000	.423
VA_6	1.000	.801
VO_6	1.000	.686
HD_6	1.000	.667
VA_7	1.000	.504
HD_7	1.000	.365
VO_8	1.000	.641
VA_8	1.000	.752

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings	
Component	Total	% of Variance	Cumulative %	Total	% of Variance
1	8.858	32.806	32.806	8.858	32.806
2	2.924	10.831	43.637	2.924	10.831
3	1.526	5.651	49.287	1.526	5.651
4	1.200	4.446	53.733	1.200	4.446
5	1.166	4.318	58.050	1.166	4.318
6	1.045	3.870	61.921	1.045	3.870
7	.993	3.676	65.597		
8	.862	3.193	68.790		
9	.823	3.049	71.839		
10	.720	2.666	74.505		
11	.678	2.513	77.018		
12	.617	2.286	79.304		
13	.584	2.164	81.468		
14	.564	2.087	83.555		
15	.519	1.923	85.477		
16	.481	1.782	87.260		
17	.465	1.722	88.981		
18	.428	1.586	90.567		
19	.414	1.535	92.102		
20	.378	1.399	93.501		
21	.349	1.294	94.795		
22	.307	1.136	95.932		
23	.258	.957	96.888		
24	.246	.909	97.798		
25	.241	.891	98.689		
26	.192	.711	99.399		
27	.162	.601	100.000		

Total Variance Explained

	Extraction Sums of Squared Loadings	Rotation Sums of Squared Loadings[a]
Component	Cumulative %	Total
1	32.806	8.099
2	43.637	6.606
3	49.287	2.433
4	53.733	3.191
5	58.050	1.722
6	61.921	1.437
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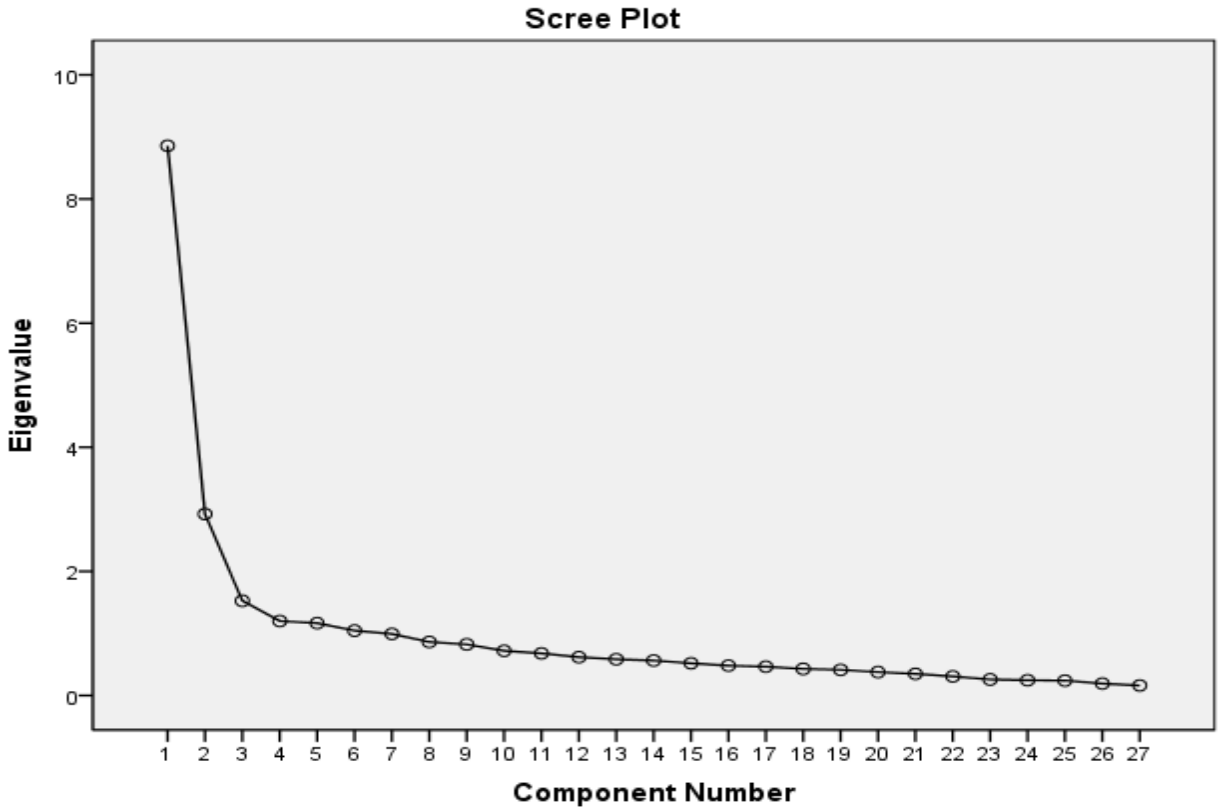
Extraction Method: Principal Component Analysis.
a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.



Component Matrix[a]

	Component					
	1	2	3	4	5	6
HD_6	.775					
HE_1	.774					
HE_4	.761					
VA_5	-.754	.315				
HD_4	.714					
VA_8	-.711	.332				
HE_3	.704					
HD_3	.701				-.355	
HE_5	.698					
HE_2	.691					
HD_1	.646					
HD_5	.621					

HD_2	.619					
VA_6	-.615	.324	.497			
VA_1	-.605	.331				
VA_4	-.539			.302		
HD_7	.493		.325			
VA_2	-.479	.355		.314		-.338
VA_7	-.471			.379		
VO_5		.633		-.316		
VO_8	.382	.571				
VO_6		.543	.512	-.303		
VO_1		.538	-.375			
VA_3	-.326	.384	-.440			.334
VO_4		.516			-.518	
VO_2		.386	-.345			-.535
VO_3		.397			.300	.443

Extraction Method: Principal Component Analysis.
a. 6 components extracted.

Pattern Matrix[a]

	Component					
	1	2	3	4	5	6
HE_3	.850					
HE_2	.839				.336	
HE_1	.759					
HD_2	.744			-.332		
HE_5	.699					
HD_6	.682					
HD_4	.679					
HD_1	.673					
HE_4	.670			.344		
HD_3	.646			.308		
HD_7	.383					
VA_7		.767				
VA_6		.694	.399			
VA_2		.688			.431	
VA_4		.687				
VA_8		.667	.315			
VA_5		.661				
VA_1		.541				
HD_5		-.415				
VO_6			.844			
VO_5			.596			
VO_4				.858		
VO_8			.475	.558		
VO_1				.501	.372	
VO_2					.827	
VO_3	.303					.666
VA_3		.381				.619

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.
a. Rotation converged in 9 iterations.

Structure Matrix

	Component					
	1	2	3	4	5	6
HD_6	.789	-.511		.471		
HE_1	.781	-.534		.334		
HE_4	.771	-.450		.606		
HE_3	.760	-.406		.309		
HD_4	.752	-.457		.391		
HE_2	.749	-.408			.332	
HD_3	.734	-.428		.507		
HE_5	.712	-.479				
HD_1	.683	-.471				
HD_2	.666	-.466				
HD_7	.507	-.401				
VA_5	-.599	.816	.422			

VA_8	-.533	.795	.507			
VA_6	-.398	.756	.608	-.309		
VA_1	-.523	.688				
VA_4	-.418	.655				
VA_2	-.355	.649			.405	
VA_7	-.342	.633				
HD_5	.557	-.578				
VO_6			.807			
VO_5		.316	.630		.422	
VO_4				.809		
VO_8	.411		.386	.618		
VO_1				.564	.530	.326
VO_2					.810	
VA_3		.390				.639
VO_3						.621

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

Component Correlation Matrix

Component	1	2	3	4	5	6
1	1.000	-.621	-.132	.391	.043	-.039
2	-.621	1.000	.303	-.201	.030	-.013
3	-.132	.303	1.000	-.092	.085	-.064
4	.391	-.201	-.092	1.000	.204	.052
5	.043	.030	.085	.204	1.000	.249
6	-.039	-.013	-.064	.052	.249	1.000

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

Factor Analysis

Notes

Output Created		28-Nov-2011 11:24:27
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	Split File	<none>
	N of Rows in Working Data File	204
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES VA_1 HD_1 HE_1 VA_2 VO_2 HE_2 HD_2 VA_3 VO_3 HE_3 HD_3 VO_4 HE_4 HD_4 VA_4 VA_5 VO_5 HE_5 HD_5 VA_6 VO_6 HD_6 VA_7 HD_7 VA_8 /MISSING LISTWISE /ANALYSIS VA_1 HD_1 HE_1 VA_2 VO_2 HE_2 HD_2 VA_3 VO_3 HE_3 HD_3 VO_4 HE_4 HD_4 VA_4 VA_5 VO_5 HE_5 HD_5 VA_6 VO_6 HD_6 VA_7 HD_7 VA_8 /PRINT INITIAL KMO EXTRACTION ROTATION /FORMAT SORT BLANK(.30) /PLOT EIGEN /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) /ROTATION PROMAX(4) /METHOD=CORRELATION.
Resources	Processor Time	00 00:00:00.405

Elapsed Time	00 00:00:00.455
Maximum Memory Required	74020 (72.285K) bytes

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.893
Bartlett's Test of Sphericity	Approx. Chi-Square	2225.845
	Df	300
	Sig.	.000

Communalities

	Initial	Extraction
VA_1	1.000	.608
HD_1	1.000	.521
HE_1	1.000	.699
VA_2	1.000	.605
VO_2	1.000	.752
HE_2	1.000	.676
HD_2	1.000	.544
VA_3	1.000	.601
VO_3	1.000	.602
HE_3	1.000	.637
HD_3	1.000	.693
VO_4	1.000	.766
HE_4	1.000	.764
HD_4	1.000	.658
VA_4	1.000	.488
VA_5	1.000	.729
VO_5	1.000	.610
HE_5	1.000	.614
HD_5	1.000	.442
VA_6	1.000	.781
VO_6	1.000	.743
HD_6	1.000	.668
VA_7	1.000	.507
HD_7	1.000	.376
VA_8	1.000	.744

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings	
Component	Total	% of Variance	Cumulative %	Total	% of Variance
1	8.690	34.760	34.760	8.690	34.760
2	2.449	9.797	44.557	2.449	9.797
3	1.417	5.668	50.224	1.417	5.668
4	1.175	4.702	54.926	1.175	4.702
5	1.078	4.313	59.239	1.078	4.313
6	1.018	4.072	63.310	1.018	4.072
7	.990	3.961	67.271		
8	.857	3.427	70.698		
9	.751	3.005	73.703		
10	.692	2.768	76.471		
11	.604	2.417	78.887		
12	.593	2.371	81.258		
13	.551	2.202	83.460		
14	.539	2.155	85.615		
15	.483	1.933	87.548		
16	.464	1.855	89.403		
17	.439	1.755	91.157		
18	.389	1.556	92.713		
19	.374	1.496	94.209		

20	.315	1.260	95.469		
21	.275	1.101	96.571		
22	.252	1.006	97.577		
23	.243	.973	98.550		
24	.196	.786	99.335		
25	.166	.665	100.000		

Total Variance Explained

	Extraction Sums of Squared Loadings	Rotation Sums of Squared Loadings[a]
Component	Cumulative %	Total
1	34.760	7.947
2	44.557	6.671
3	50.224	2.604
4	54.926	2.113
5	59.239	1.400
6	63.310	1.473
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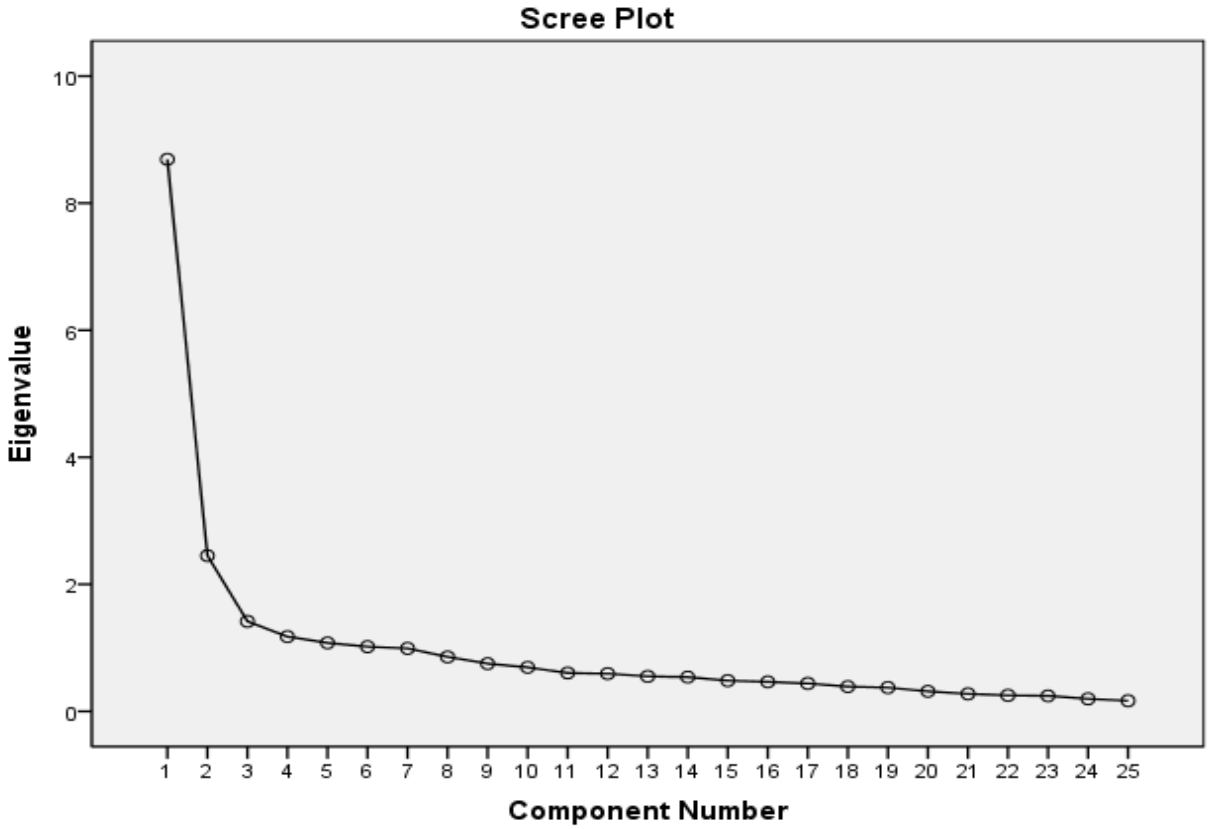
Extraction Method: Principal Component Analysis.
a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.



Component Matrix[a]

	Component					
	1	2	3	4	5	6
HE_1	.772					
HD_6	.769					
VA_5	-.765	.311				
HE_4	.754					
VA_8	-.721	.352				
HD_4	.709					
HE_3	.699					
HD_3	.697			.396		
HE_5	.691	.303				
HE_2	.684				.338	
HD_1	.642					
VA_6	-.628	.343	.445			
HD_2	.623					
VA_1	-.621					
HD_5	.619					
VA_4	-.548					
VA_2	-.491	.360			.367	
HD_7	.488		.337			
VA_7	-.478			.379		
VO_5	-.312	.591		-.347		
VO_6		.550	.530			
VA_3	-.338	.398	-.487			
VO_4		.469			-.585	
VO_2		.398	-.350		.426	-.406
VO_3		.428		-.331		.439

Extraction Method: Principal Component Analysis.
a. 6 components extracted.

Pattern Matrix[a]

	Component					
	1	2	3	4	5	6
HE_3	.871					
HE_2	.831					.320
HE_1	.783					
HD_4	.720					
HD_2	.715			-.329		
HD_6	.700					
HD_3	.692			.302		
HD_1	.690					
HE_4	.662			.388		
HE_5	.634					
HD_7	.385		.315			
VA_7		.819				
VA_4		.733				
VA_6		.706	.361			
VA_5		.669				
VA_8		.665	.321			
VA_2		.613				.467
HD_5		-.491				
VA_1		.478				
VO_6			.912			
VO_5			.659			
VO_4				.880		
VO_3					.709	
VA_3		.317			.597	
VO_2						.839

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.
a. Rotation converged in 8 iterations.

Structure Matrix

	Component					
	1	2	3	4	5	6
HE_1	.794	-.529	-.304			
HD_6	.787	-.523		.416		
HE_4	.767	-.466	-.322	.608		
HE_3	.765	-.406				
HD_4	.756	-.469		.326		
HE_2	.750	-.421				
HD_3	.734	-.436		.477		
HE_5	.706	-.492			.331	
HD_1	.686	-.471				
HD_2	.663	-.474				
HD_7	.504	-.411				
VA_5	-.605	.820	.469			
VA_8	-.541	.795	.559			
VA_6	-.409	.752	.624	-.314		
VA_1	-.531	.680				.316
VA_4	-.413	.668				
VA_7	-.345	.641				
VA_2	-.366	.633				.513
HD_5	.547	-.594				
VO_6			.827			
VO_5		.327	.655			.374
VO_4				.830		
VO_3					.693	
VA_3	-.311	.387			.600	
VO_2						.815

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

Component Correlation Matrix

Component	1	2	3	4	5	6
1	1.000	-.639	-.196	.293	.044	-.023
2	-.639	1.000	.358	-.140	-.055	.130
3	-.196	.358	1.000	-.216	-.068	.070
4	.293	-.140	-.216	1.000	.040	.133
5	.044	-.055	-.068	.040	1.000	.194
6	-.023	.130	.070	.133	.194	1.000

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

Factor Analysis

Notes

Output Created		28-Nov-2011 11:25:38
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	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	204
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES VA_1 HD_1 HE_1 VA_2 VO_2 HE_2 HD_2 VA_3 VO_3 HE_3 HD_3 VO_4 HE_4 HD_4 VA_4 VA_5 VO_5 HE_5 HD_5 VA_6 VO_6 HD_6 VA_7 HD_7 VA_8 /MISSING LISTWISE /ANALYSIS VA_1 HD_1 HE_1 VA_2 VO_2 HE_2 HD_2 VA_3 VO_3 HE_3 HD_3 VO_4 HE_4 HD_4 VA_4 VA_5 VO_5 HE_5 HD_5 VA_6 VO_6 HD_6 VA_7 HD_7 VA_8 /PRINT INITIAL KMO EXTRACTION ROTATION /FORMAT SORT BLANK(.30) /PLOT EIGEN /CRITERIA FACTORS(3) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) /ROTATION PROMAX(4) /METHOD=CORRELATION.
Resources	Processor Time	00 00:00:00.390
	Elapsed Time	00 00:00:00.409
	Maximum Memory Required	74020 (72.285K) bytes

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.893
Bartlett's Test of Sphericity	Approx. Chi-Square	2225.845
	Df	300
	Sig.	.000

Communalities

	Initial	Extraction
VA_1	1.000	.479
HD_1	1.000	.480
HE_1	1.000	.632
VA_2	1.000	.405
VO_2	1.000	.351
HE_2	1.000	.559
HD_2	1.000	.437
VA_3	1.000	.510
VO_3	1.000	.283
HE_3	1.000	.549
HD_3	1.000	.503
VO_4	1.000	.334
HE_4	1.000	.652
HD_4	1.000	.571
VA_4	1.000	.386
VA_5	1.000	.697
VO_5	1.000	.460
HE_5	1.000	.579
HD_5	1.000	.386
VA_6	1.000	.710
VO_6	1.000	.608
HD_6	1.000	.614
VA_7	1.000	.299
HD_7	1.000	.362
VA_8	1.000	.707

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings	
Component	Total	% of Variance	Cumulative %	Total	% of Variance
1	8.690	34.760	34.760	8.690	34.760
2	2.449	9.797	44.557	2.449	9.797
3	1.417	5.668	50.224	1.417	5.668
4	1.175	4.702	54.926		
5	1.078	4.313	59.239		
6	1.018	4.072	63.310		
7	.990	3.961	67.271		
8	.857	3.427	70.698		
9	.751	3.005	73.703		
10	.692	2.768	76.471		
11	.604	2.417	78.887		
12	.593	2.371	81.258		
13	.551	2.202	83.460		
14	.539	2.155	85.615		
15	.483	1.933	87.548		
16	.464	1.855	89.403		
17	.439	1.755	91.157		
18	.389	1.556	92.713		
19	.374	1.496	94.209		
20	.315	1.260	95.469		
21	.275	1.101	96.571		
22	.252	1.006	97.577		
23	.243	.973	98.550		
24	.196	.786	99.335		
25	.166	.665	100.000		

Total Variance Explained

Component	Extraction Sums of Squared Loadings	Rotation Sums of Squared Loadings[a]
	Cumulative %	Total
1	34.760	8.117
2	44.557	4.814
3	50.224	4.929
4		
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10		
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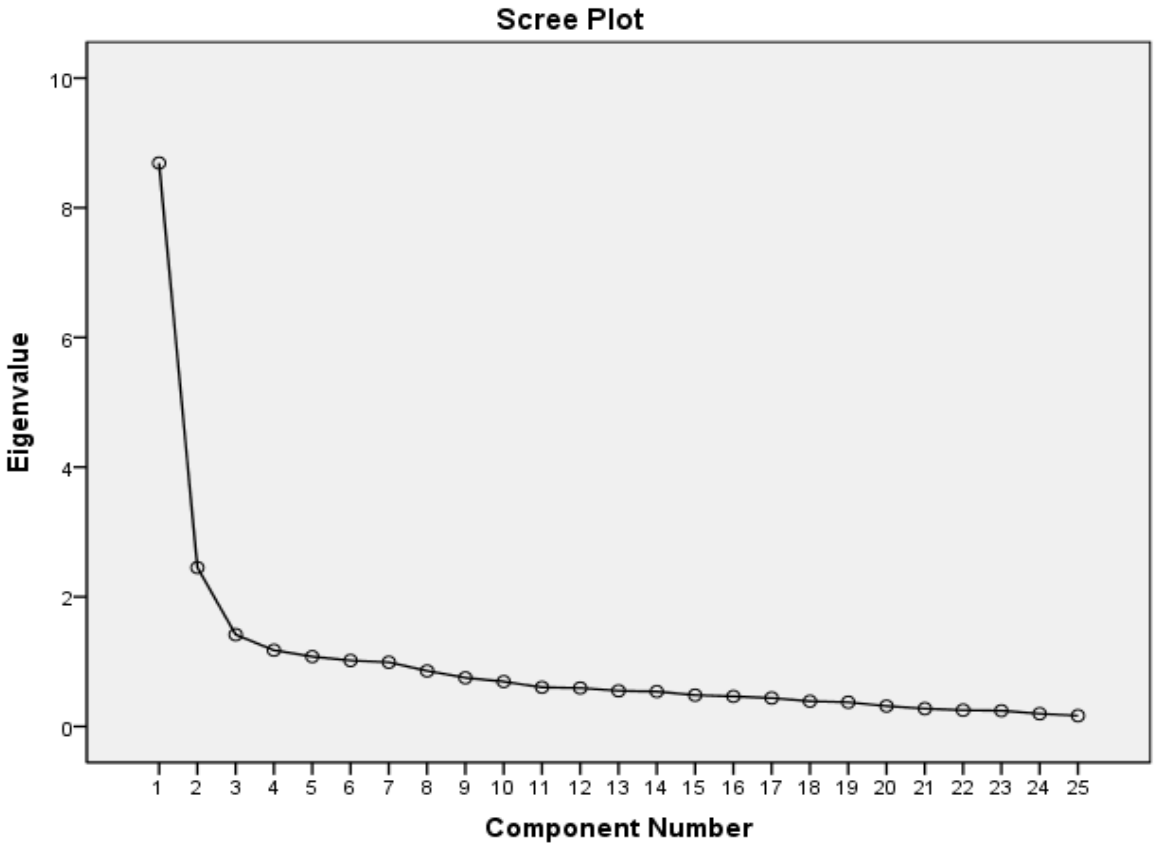
Extraction Method: Principal Component Analysis.
a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.



Component Matrix[a]

	Component		
	1	2	3
HE_1	.772		
HD_6	.769		
VA_5	-.765	.311	
HE_4	.754		
VA_8	-.721	.352	
HD_4	.709		
HE_3	.699		
HD_3	.697		
HE_5	.691	.303	
HE_2	.684		
HD_1	.642		
VA_6	-.628	.343	.445
HD_2	.623		
VA_1	-.621		
HD_5	.619		
VA_4	-.548		
VA_2	-.491	.360	
HD_7	.488		.337
VA_7	-.478		
VO_5	-.312	.591	
VO_6		.550	.530
VO_4		.469	
VO_3		.428	
VO_2		.398	-.350
VA_3	-.338	.398	-.487

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component		
	1	2	3
HE_1	.772		
HD_6	.769		
VA_5	-.765	.311	
HE_4	.754		
VA_8	-.721	.352	
HD_4	.709		
HE_3	.699		
HD_3	.697		
HE_5	.691	.303	
HE_2	.684		
HD_1	.642		
VA_6	-.628	.343	.445
HD_2	.623		
VA_1	-.621		
HD_5	.619		
VA_4	-.548		
VA_2	-.491	.360	
HD_7	.488		.337
VA_7	-.478		
VO_5	-.312	.591	
VO_6		.550	.530
VO_4		.469	
VO_3		.428	
VO_2		.398	-.350
VA_3	-.338	.398	-.487

Extraction Method: Principal Component Analysis.
a. 3 components extracted.

Pattern Matrix[a]

	Component		
	1	2	3
VA_3	-.787	.611	
HD_4	.744		
HD_7	.720		
HD_1	.698		
HD_2	.684		
HD_3	.608		
VA_1	-.577		
HD_6	.574		
VA_2	-.565	.313	
HE_2	.541	.375	
VA_4	-.537		
VA_7	-.521		
HE_3	.450	.404	
HE_1	.447	.396	
HD_5	.439		
VO_2		.656	
VO_4		.623	
VO_3		.543	
HE_4	.354	.507	
HE_5	.386	.491	
VO_6	.459		.914
VA_6			.791
VA_8			.650
VO_5		.313	.626
VA_5	-.424		.518

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

Structure Matrix

	Component		
	1	2	3
HD_6	.739	.581	-.402
HD_4	.736	.462	
HE_1	.709	.637	-.452
HD_3	.694	.463	-.360
HD_1	.672	.417	
HE_2	.661	.611	
HD_2	.656	.345	
HE_3	.651	.622	-.332
VA_1	-.636		.531
HD_5	.591	.434	-.373
VA_4	-.568		.467
HD_7	.559		
VA_2	-.534		.460
VA_7	-.509		.375
VA_3	-.473		
HE_4	.669	.703	-.425
HE_5	.627	.678	-.311
VO_2		.572	
VO_4		.557	
VO_3		.519	
VA_6	-.489	-.357	.819
VA_8	-.633	-.331	.799
VA_5	-.709	-.335	.746
VO_6			.672
VO_5			.619

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

Component Correlation Matrix

Component	1	2	3
1	1.000	.478	-.524
2	.478	1.000	-.199
3	-.524	-.199	1.000

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

Factor Analysis

Notes

Output Created		28-Nov-2011 11:33:29
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	Split File	<none>
	N of Rows in Working Data File	204
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES VA_1 HD_1 HE_1 VA_2 VO_2 HE_2 HD_2 VA_3 VO_3 HE_3 HD_3 VO_4 HE_4 HD_4 VA_4 VA_5 VO_5 HE_5 HD_5 VA_6 VO_6 HD_6 VA_7 HD_7 VA_8 /MISSING LISTWISE /ANALYSIS VA_1 HD_1 HE_1 VA_2 VO_2 HE_2 HD_2 VA_3 VO_3 HE_3 HD_3 VO_4 HE_4 HD_4 VA_4 VA_5 VO_5 HE_5 HD_5 VA_6 VO_6 HD_6 VA_7 HD_7 VA_8 /PRINT INITIAL KMO EXTRACTION ROTATION /FORMAT SORT BLANK(.30) /PLOT EIGEN /CRITERIA FACTORS(4) ITERATE(25) /EXTRACTION PC /CRITERIA ITERATE(25) /ROTATION VARIMAX /METHOD=CORRELATION.
Resources	Processor Time	00 00:00:00.406
	Elapsed Time	00 00:00:00.396
	Maximum Memory Required	74020 (72.285K) bytes

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.893
Bartlett's Test of Sphericity	Approx. Chi-Square	2225.845
	Df	300
	Sig.	.000

Communalities

	Initial	Extraction
VA_1	1.000	.526
HD_1	1.000	.481
HE_1	1.000	.639
VA_2	1.000	.435
VO_2	1.000	.406
HE_2	1.000	.560
HD_2	1.000	.440
VA_3	1.000	.532
VO_3	1.000	.393
HE_3	1.000	.574
HD_3	1.000	.660
VO_4	1.000	.352
HE_4	1.000	.738
HD_4	1.000	.629
VA_4	1.000	.427
VA_5	1.000	.711
VO_5	1.000	.580
HE_5	1.000	.593
HD_5	1.000	.430

VA_6	1.000	.752
VO_6	1.000	.680
HD_6	1.000	.662
VA_7	1.000	.443
HD_7	1.000	.365
VA_8	1.000	.725

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.690	34.760	34.760	8.690	34.760	34.760
2	2.449	9.797	44.557	2.449	9.797	44.557
3	1.417	5.668	50.224	1.417	5.668	50.224
4	1.175	4.702	54.926	1.175	4.702	54.926
5	1.078	4.313	59.239			
6	1.018	4.072	63.310			
7	.990	3.961	67.271			
8	.857	3.427	70.698			
9	.751	3.005	73.703			
10	.692	2.768	76.471			
11	.604	2.417	78.887			
12	.593	2.371	81.258			
13	.551	2.202	83.460			
14	.539	2.155	85.615			
15	.483	1.933	87.548			
16	.464	1.855	89.403			
17	.439	1.755	91.157			
18	.389	1.556	92.713			
19	.374	1.496	94.209			
20	.315	1.260	95.469			
21	.275	1.101	96.571			
22	.252	1.006	97.577			
23	.243	.973	98.550			
24	.196	.786	99.335			
25	.166	.665	100.000			

Total Variance Explained

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	5.668	22.671	22.671
2	4.118	16.471	39.142
3	2.075	8.299	47.441
4	1.871	7.485	54.926
5			
6			
7			
8			
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23			
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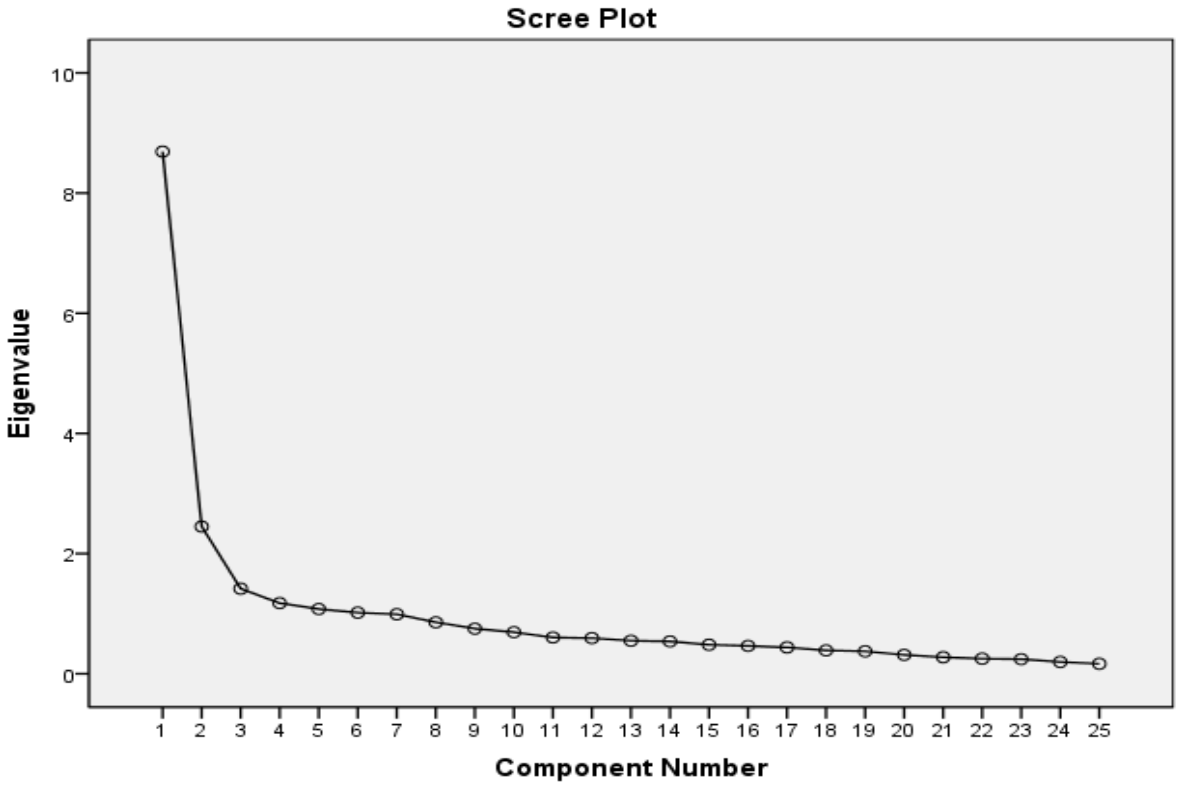
25			

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component			
	1	2	3	4
HE_1	.772			
HD_6	.769			
VA_5	-.765	.311		
HE_4	.754			
VA_8	-.721	.352		
HD_4	.709			
HE_3	.699			
HD_3	.697			.396
HE_5	.691	.303		
HE_2	.684			
HD_1	.642			
VA_6	-.628	.343	.445	
HD_2	.623			
VA_1	-.621			
HD_5	.619			
VA_4	-.548			
VA_2	-.491	.360		
HD_7	.488		.337	
VA_7	-.478			.379
VO_5	-.312	.591		-.347
VO_6		.550	.530	
VO_4		.469		
VO_3		.428		-.331
VO_2		.398	-.350	
VA_3	-.338	.398	-.487	

Extraction Method: Principal Component Analysis.
a. 4 components extracted.

Rotated Component Matrix[a]

	Component			
	1	2	3	4
HE_4	.786			
HD_3	.775			
HD_6	.754			
HD_4	.746			
HE_3	.696			
HE_1	.676	-.314		
HE_2	.655			
HE_5	.569	-.329		.401
HD_1	.561	-.389		
HD_2	.497	-.434		
HD_7	.429	-.365		
VO_4	.398			.390
VA_1		.658		
VA_7		.655		
VA_5	-.379	.636	.396	
VA_8	-.303	.607	.497	
VA_2		.605		
VA_4		.601		
HD_5	.384	-.474		
VO_6			.817	
VO_5			.602	.391
VA_6		.543	.591	
VO_2				.606
VO_3				.560
VA_3		.405		.556

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 7 iterations.

Component Transformation Matrix

Component	1	2	3	4
1	.756	-.597	-.219	.155
2	.394	.438	.567	.575
3	.143	-.248	.726	-.625
4	.504	.624	-.320	-.504

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.893
Bartlett's Test of Sphericity	Approx. Chi-Square	2225.845
	Df	300
	Sig.	.000

Communalities

	Initial	Extraction
VA_1	1.000	.467
HD_1	1.000	.433
HE_1	1.000	.622
VA_2	1.000	.371
VO_2	1.000	.229
HE_2	1.000	.557
HD_2	1.000	.391
VA_3	1.000	.273
VO_3	1.000	.255
HE_3	1.000	.547
HD_3	1.000	.494
VO_4	1.000	.278
HE_4	1.000	.624
HD_4	1.000	.525
VA_4	1.000	.371
VA_5	1.000	.682

VO_5	1.000	.446
HE_5	1.000	.570
HD_5	1.000	.386
VA_6	1.000	.512
VO_6	1.000	.326
HD_6	1.000	.614
VA_7	1.000	.275
HD_7	1.000	.248
VA_8	1.000	.644

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.690	34.760	34.760	8.690	34.760	34.760
2	2.449	9.797	44.557	2.449	9.797	44.557
3	1.417	5.668	50.224			
4	1.175	4.702	54.926			
5	1.078	4.313	59.239			
6	1.018	4.072	63.310			
7	.990	3.961	67.271			
8	.857	3.427	70.698			
9	.751	3.005	73.703			
10	.692	2.768	76.471			
11	.604	2.417	78.887			
12	.593	2.371	81.258			
13	.551	2.202	83.460			
14	.539	2.155	85.615			
15	.483	1.933	87.548			
16	.464	1.855	89.403			
17	.439	1.755	91.157			
18	.389	1.556	92.713			
19	.374	1.496	94.209			
20	.315	1.260	95.469			
21	.275	1.101	96.571			
22	.252	1.006	97.577			
23	.243	.973	98.550			
24	.196	.786	99.335			
25	.166	.665	100.000			

Total Variance Explained

	Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %
1	6.435	25.738	25.738
2	4.705	18.818	44.557
3			
4			
5			
6			
7			
8			
9			
10			
11			
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16			
17			
18			
19			
20			
21			
22			
23			
24			

Total Variance Explained

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	6.435	25.738	25.738
2	4.705	18.818	44.557
3			
4			
5			
6			
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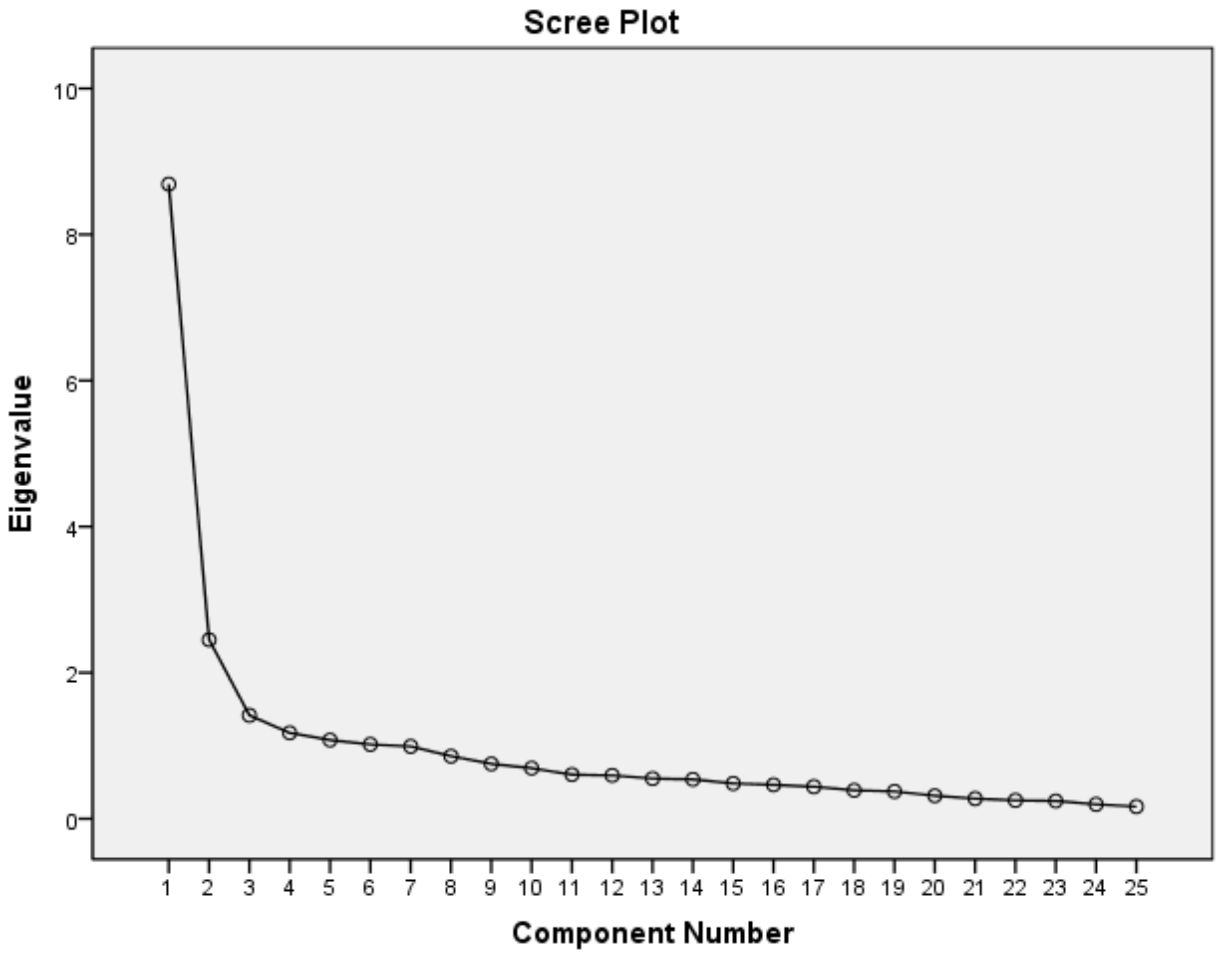
22			
23			
24			
25			

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component	
	1	2
HE_1	.772	
HD_6	.769	
VA_5	-.765	.311
HE_4	.754	
VA_8	-.721	.352
HD_4	.709	
HE_3	.699	
HD_3	.697	
HE_5	.691	.303
HE_2	.684	
HD_1	.642	
VA_6	-.628	.343
HD_2	.623	
VA_1	-.621	
HD_5	.619	
VA_4	-.548	
VA_2	-.491	.360
HD_7	.488	
VA_7	-.478	
VO_5	-.312	.591
VO_6		.550
VO_4		.469
VO_3		.428
VO_2		.398
VA_3	-.338	.398

Extraction Method: Principal Component Analysis.
a. 2 components extracted.

Rotated Component Matrix[a]

	Component	
	1	2
HE_4	.744	
HE_5	.735	
HE_2	.726	
HE_1	.714	-.336
HD_6	.706	-.340
HE_3	.704	
HD_4	.656	-.307
HD_3	.610	-.349
HD_1	.601	
HD_2	.530	-.332
HD_5	.529	-.327
VO_4	.474	
VO_3	.471	
VO_2	.451	
HD_7	.450	
VA_8	-.364	.715
VA_5	-.425	.708
VO_5		.659
VA_6		.652
VA_1	-.326	.600
VA_2		.583
VA_4		.542
VO_6		.532
VA_3		.521
VA_7		.459

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

Component Transformation Matrix

Component	1	2
1	.799	-.601
2	.601	.799

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Correlations

Correlations

		CLtot	CSStot	QALtot	QAltot	SCtot	GLStot
CLtot	Pearson Correlation	1	.773**	-.500**	-.618**	-.277**	.415**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	199	196	198	195	196	196
CSStot	Pearson Correlation	.773**	1	-.435**	-.565**	-.221**	.281**
	Sig. (2-tailed)	.000		.000	.000	.002	.000
	N	196	200	199	196	196	197
QALtot	Pearson Correlation	-.500**	-.435**	1	.622**	.160*	-.227**
	Sig. (2-tailed)	.000	.000		.000	.024	.001
	N	198	199	202	198	198	199
QAltot	Pearson Correlation	-.618**	-.565**	.622**	1	.119	-.230**
	Sig. (2-tailed)	.000	.000	.000		.096	.001
	N	195	196	198	199	195	196
SCtot	Pearson Correlation	-.277**	-.221**	.160*	.119	1	-.372**
	Sig. (2-tailed)	.000	.002	.024	.096		.000
	N	196	196	198	195	200	197
GLStot	Pearson Correlation	.415**	.281**	-.227**	-.230**	-.372**	1
	Sig. (2-tailed)	.000	.000	.001	.001	.000	
	N	196	197	199	196	197	201
MLStot	Pearson Correlation	.445**	.323**	-.201**	-.186**	-.545**	.643**
	Sig. (2-tailed)	.000	.000	.004	.009	.000	.000
	N	198	199	201	198	199	200
PBJWtot	Pearson Correlation	.268**	.251**	-.167*	-.102	-.209**	.353**
	Sig. (2-tailed)	.000	.000	.020	.160	.004	.000
	N	191	192	194	191	192	193
GBJWtot	Pearson Correlation	.201**	.204**	.036	.045	-.245**	.170*
	Sig. (2-tailed)	.005	.004	.617	.536	.001	.017
	N	195	196	198	195	195	196
CMtot	Pearson Correlation	.846**	.789**	-.531**	-.620**	-.221**	.341**
	Sig. (2-tailed)	.000	.000	.000	.000	.002	.000
	N	196	198	199	196	196	197
Hostiletot	Pearson Correlation	-.496**	-.437**	.580**	.536**	.308**	-.229**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.001
	N	192	190	192	190	191	192
Validatetot	Pearson Correlation	.630**	.484**	-.228**	-.303**	-.255**	.384**
	Sig. (2-tailed)	.000	.000	.001	.000	.000	.000
	N	196	197	199	196	197	198

Correlations

		MLStot	PBJWtot	GBJWtot	CMtot	Hostiletot	Validatetot
CLtot	Pearson Correlation	.445**	.268**	.201**	.846**	-.496**	.630**
	Sig. (2-tailed)	.000	.000	.005	.000	.000	.000
	N	198	191	195	196	192	196
CSStot	Pearson Correlation	.323**	.251**	.204**	.789**	-.437**	.484**
	Sig. (2-tailed)	.000	.000	.004	.000	.000	.000
	N	199	192	196	198	190	197
QALtot	Pearson Correlation	-.201**	-.167*	.036	-.531**	.580**	-.228**
	Sig. (2-tailed)	.004	.020	.617	.000	.000	.001
	N	201	194	198	199	192	199
QAltot	Pearson Correlation	-.186**	-.102	.045	-.620**	.536**	-.303**
	Sig. (2-tailed)	.009	.160	.536	.000	.000	.000
	N	198	191	195	196	190	196
SCtot	Pearson Correlation	-.545**	-.209**	-.245**	-.221**	.308**	-.255**
	Sig. (2-tailed)	.000	.004	.001	.002	.000	.000
	N	199	192	195	196	191	197
GLStot	Pearson Correlation	.643**	.353**	.170*	.341**	-.229**	.384**
	Sig. (2-tailed)	.000	.000	.017	.000	.001	.000
	N	200	193	196	197	192	198
MLStot	Pearson Correlation	1	.236**	.169*	.344**	-.354**	.338**
	Sig. (2-tailed)		.001	.017	.000	.000	.000

	N	203	195	198	199	193	200
PBJWtot	Pearson Correlation	.236**	1	.402**	.266**	-.076	.207**
	Sig. (2-tailed)	.001		.000	.000	.300	.004
	N	195	196	193	193	187	194
GBJWtot	Pearson Correlation	.169*	.402**	1	.189**	.030	.204**
	Sig. (2-tailed)	.017	.000		.008	.678	.004
	N	198	193	199	196	189	196
CMtot	Pearson Correlation	.344**	.266**	.189**	1	-.492**	.562**
	Sig. (2-tailed)	.000	.000	.008		.000	.000
	N	199	193	196	200	190	197
Hostiletot	Pearson Correlation	-.354**	-.076	.030	-.492**	1	-.295**
	Sig. (2-tailed)	.000	.300	.678	.000		.000
	N	193	187	189	190	194	192
Validatetot	Pearson Correlation	.338**	.207**	.204**	.562**	-.295**	1
	Sig. (2-tailed)	.000	.004	.004	.000	.000	
	N	200	194	196	197	192	201

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Reliability - Hostile Conflict style

Notes

Output Created		28-Nov-2011 12:00:27
Comments		
Input	Data	C:\Users\User\Documents\Researchsupervision\MikhailJansen\2011\Mikelinadata.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	204
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=HE_4 HE_5 HE_3 HE_2 HD_1 HD_7 VO_2 VO_3 VO_4 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA /STATISTICS=DESCRIPTIVE SCALE /SUMMARY=TOTAL.
Resources	Processor Time	00 00:00:00.000
	Elapsed Time	00 00:00:00.009

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	194	95.1
	Excluded[a]	10	4.9
	Total	204	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.795	9

Item Statistics

	Mean	Std. Deviation	N
HE_4	1.79	1.147	194
HE_5	2.66	1.526	194
HE_3	2.09	1.361	194
HE_2	2.10	1.373	194
HD_1	2.02	1.269	194
HD_7	2.83	1.395	194
VO_2	3.69	1.339	194
VO_3	3.86	1.410	194
VO_4	2.28	1.394	194

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
HE_4	21.52	45.121	.675	.754
HE_5	20.65	41.545	.659	.749
HE_3	21.23	43.824	.619	.757
HE_2	21.21	43.556	.629	.755
HD_1	21.30	46.522	.503	.773
HD_7	20.48	47.961	.359	.792
VO_2	19.63	48.659	.342	.794
VO_3	19.46	48.156	.342	.795
VO_4	21.04	49.185	.292	.801

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
23.31	56.838	7.539	9

Reliability - Validator scale

Notes

Output Created		28-Nov-2011 12:01:52
Comments		
Input	Data	C:\Users\User\Documents\Researchsupervision\MikhailJansen\2011\Mikelinadata.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	204
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=VO_5 VO_6 VA_2 VA_3 VA_4 VA_6 VA_7 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA /STATISTICS=DESCRIPTIVE SCALE /SUMMARY=TOTAL.
Resources	Processor Time	00 00:00:00.000
	Elapsed Time	00 00:00:00.008

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	201	98.5
	Excluded[a]	3	1.5
	Total	204	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.692	7

Item Statistics

	Mean	Std. Deviation	N
VO_5	4.09	1.359	201
VO_6	3.41	1.589	201
VA_2	4.27	1.352	201
VA_3	5.20	1.109	201
VA_4	4.66	1.455	201
VA_6	4.57	1.283	201
VA_7	4.46	1.360	201

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
VO_5	26.57	24.196	.450	.645
VO_6	27.25	25.000	.285	.695
VA_2	26.40	24.341	.441	.647
VA_3	25.47	27.360	.298	.682
VA_4	26.01	23.740	.437	.648
VA_6	26.09	23.436	.561	.617
VA_7	26.20	25.233	.364	.668

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
30.67	32.053	5.662	7

ANNEXURE 5

(Ethical Clearance Certificate)