

James Madison University
JMU Scholarly Commons

Dissertations

The Graduate School

Summer 2018

Contributory factors of well-being in new mothers: An exploratory study

Molly Bowman
James Madison University

Follow this and additional works at: <https://commons.lib.jmu.edu/diss201019>

 Part of the [Clinical Psychology Commons](#)

Recommended Citation

Bowman, Molly, "Contributory factors of well-being in new mothers: An exploratory study" (2018). *Dissertations*. 184.
<https://commons.lib.jmu.edu/diss201019/184>

This Dissertation is brought to you for free and open access by the The Graduate School at JMU Scholarly Commons. It has been accepted for inclusion in Dissertations by an authorized administrator of JMU Scholarly Commons. For more information, please contact dc_admin@jmu.edu.

Contributory Factors of Well-Being in New Mothers; An Exploratory Study

Molly J. Bowman

A dissertation Submitted to the Graduate Faculty of

James Madison University

In

Partial Fulfillment of the Requirements

for the Degree of

Doctor of Psychology

Department of Graduate Psychology

August 2018

FACULTY COMMITTEE:

Committee Chair: Kenneth Critchfield, PhD

Committee Members:

Elena Savina, PhD

Anne Stewart, PhD

Acknowledgements

The faculty within the C-I program have inspired me to think deeply, challenge myself, and tirelessly pursue my dreams. Ken, during my time at JMU, you have contributed to both my professional and personal development in such a way I find it hard to put into words. Through tears, quibbles, and obstacles, you continued to mentor me. You also reminded me of the power of patience. I'm still working on that. Elena you taught me the power of truth. Your warm presence and commitment to teaching is beautiful. Please know that I remind myself of those things often. Anne, you changed my life by teaching me to see and intervene with an entire system rather than the individual. This project may have begun with the scope of a new mother, but ended with the scope of an entire community.

Table of Contents

Acknowledgements.....	ii
List of Tables.....	vi
List of Figures.....	vii
Abstract.....	ix
Chapters 1 & 2 Introduction and Review of the Literature.....	1
Study Aims.....	1
Attachment.....	1
Intergenerational Transmission of Attachment through Copy Process Theory.....	6
Well-Being.....	9
Ryff Model of Well-Being.....	9
Nested Model of Well-Being.....	10
Factors Impacting New Mothers.....	13
Health Screening in New Mothers.....	15
Identifying new Initiatives in Postpartum care.....	17
Factors Specific to New Mothers.....	18
Parenthood and Mediating Factors Related to Well-Being.....	18
Existing Measures for Parental Well-Being.....	19
Summary.....	20
Project Aim.....	21
Chapter 3: Method.....	22
Participants.....	22
Inclusion and Exclusion Criteria.....	22

Recruitment.....	23
Instruments.....	23
Maternal Well-Being Measure (MaWM).....	24
Intrex Questionnaire.....	25
Copy Process Analysis.....	28
Adverse Childhood Experiences Questionnaire Short Form (ACE-Q).....	30
Statistical Analysis.....	30
Chapter 4: Results.....	31
Maternal Well-being Measure.....	32
Comparison of Quantitative and Qualitative Responses.....	39
Concurrent Validity using the Intrex Survey	45
Analysis of Relationship Patterns with Infants.....	47
Adverse Childhood Experiences Survey.....	48
Intrex-based, Qualitative Analysis of 6 cases.....	49
Lucy.....	51
Natalie.....	56
Amy.....	61
Rachel.....	64
Lauren.....	67
Matilda.....	70
Intrex Specific Case Summary.....	75
Chapter 5: Discussion.....	76
Validity of the Maternal Well-Being Measure	77
Concurrent Validity Evidenced by Intrex.....	80
Areas for Growth.....	83

Future Directions and Implications.....	85
Post-Script.....	87
References.....	88
Appendix A Recruitment Flyer.....	98
Appendix B Maternal Well-Being Measure.....	99
Appendix C Cluster Graphs for Sample.....	102

List of Tables

Total Participants Completing Measure.....	32
Table 2: Wellness Assessed from Before Pregnancy (Retrospective Rating) to After Childbirth for MaWM domains.....	33
Table 3: Concerns Endorsed by MaWM Domain.....	35
Table 4: Pearson Correlations for Well-Being Before Pregnancy.....	36
Table 5: Pearson Correlations for Well-Being After Childbirth.....	36
Table 6: Correlations as Remembered Prior to Childbirth to After Birth.....	39
Table 7: Selected Qualitative Responses By Domain, Including Quantitative Scale Rating.....	40
Table 8: MaWM Domains Correlated with Maternal Self-Affiliation on the Intrex.....	46

List of Figures

Figure 1 Nested Model of Well-Being.....	12
Figure 2 Simplified SASB Model.....	26
Figure 3 Intrex Ratings Used to Define Each Copy Process Profile.....	29
Figure 4. Lucy: Introject at Best and Mother’s Input.....	52
Figure 5. Lucy: Introject at Worst and Father’s Input.....	53
Figure 6. Lucy: Response to Infant At Best and Mother’s Input.....	54
Figure 7. Lucy: Response to Infant At Worst and Father’s Input.....	55
Figure 8. Natalie: Introject At Best and Mother.....	57
Figure 9. Natalie: Introject At Worst and Mother.....	58
Figure 10. Natalie: Father’s Pattern of Behavior Does Not Appear to be Copied.....	59
Figure 11. Natalie: Identification with Mother	60
Figure 12. Amy: Introject at Best and Father.....	61
Figure 13. Amy: Introject at Best and Mother.....	62
Figure 14. Amy: Identification with Father when At Best.....	63
Figure 15. Rachel: Introject At Best and Worst.....	64
Figure 16. Rachel: Identification with Mother.....	65
Figure 17. Rachel: Identification with Father.....	66
Figure 18. Lauren: Self-Treatment at Best and Worst.....	67
Figure 19. Lauren: Identification with Father.....	68
Figure 20. Lauren: Identification with Father.....	68
Figure 21. Lauren: Relationship Between Mother and Daughter Not Copied.....	69
Figure 22. Matilda; Introject at Best and Mother’s Input.....	71
Figure 23. Matilda Introject at Worst and Father’s Input.....	72
Figure 24. Infant’s focus At Worst and Matilda’s Response to Father in Childhood.....	73

Figure 25. Matilda: Recapitulation (Opposite): Matilda Focuses on Infant At Worst and Her
Response to Father in Childhood.....74

Abstract

The focus of maternal postpartum care has shifted in the past fifty years. Initially, medical doctors analyzed the physical well-being of the infant, and little attention was paid to the mother's recovery outside of physical wellness. Although knowledge of postpartum ailments, both psychological and physical are now pervasive, there are few measures that directly assess the factors that contribute to a mother's well-being and/or speak to her approach to parenting from the initial stages. Specific links from childhood, psychosocial factors, current relationship with spouses, and pain experienced as a result of childbirth are just a few examples of the elements having contributory influence on a mother's general wellness. However, it remains that during the immediate postpartum period that well-being is often under-discussed or not discussed with the mother by her physician. A specific well-being tool was created to assess well-being in a way that addresses the specific needs and experiences of new mothers after giving birth, and provide a straightforward basis for conversation with medical professionals. This tool, the Maternal Well-Being Measure (MaWM) was designed in the present study to assess mothers' well-being across domains: physical, emotional, relationship with self, relationship with others, access to resources, and meaning of parenthood. Paired with the Intrex, an assessment measure developed to analyze early relationships and how they impact adult functioning, the goal of this study was to develop what factors may contribute to maternal well-being on a global level in primiparous mothers. Initial psychometric properties, concurrent validity, and utility of the measure are explored in a small sample of $N = 21$ postpartum mother

Introduction

The focus of this project is on contributing factors to total well-being in postpartum mothers. In order to assess unique needs associated with the important life transition of becoming a mother, a new measure has been developed and tested that may also have clinical utility for this population. The field of psychology has contributed a long history of the exploration between mother and infant, and this study sought to build off existing work and contribute a short, accessible postpartum well-being tool that could be used to understand early stages in motherhood more completely.

This introduction seeks to contextualize the major findings of attachment literature to make a case for the key role that motherhood plays, and how its unique features and functions require special attention brought to maternal well-being. Copy Process Theory (Critchfield & Benjamin, 2008) will also be reviewed to the degree that it applies a specific lens to how attachments are formed and with what degree of specificity they are transferred to the next generation. From there, an analysis of current approaches to well-being research will be reviewed. Finally, an analysis of the pragmatics of maternal wellness check-ups will be considered in how a more integrated approach may benefit integrative care practices in the future.

Attachment

The importance of the mother-infant relationship on later development and health of the infant has been documented by many theorists of psychology and human development, dating back to Freud's writing in the early 20th century (Freud, 1914). The relationship between mother and child has been written about extensively and has been recognized as contributing to an

individual's long-term functioning. Initially, the theory of attachment grew out of Sigmund Freud's analysis of the Instinct Theory. Freud was specific in noting that a mother's breast is a child's first love object. Freud wrote that when a mother kisses, strokes, and rocks the baby while nursing, she fulfills her task "in teaching him to love" (Freud [1914] 1957). But it was not until the 1930's that Freud recognized the enduring importance of the mother-infant relationship. In 1938, he stated that a mother's importance was "unique, without parallel, established unalterably for a whole lifetime as the first and strongest love-object and as the prototype of all later love relations" (1938, p. 188). From Freud's early writings sprang forth a series of theorists who sought to build off of his hypotheses and further analyze the mother-infant relationship. Although Freud was not without criticism, his theories drove the effort to provide evidence that relationships can fuel healthy and pathological developmental trajectories.

Over the course of psychology's development, the attachment process was more widely accepted by the developmental science community. For decades, many theorists and researchers analyzed questions to test hypotheses that developed out of a response to Freud's psychoanalytic theories. Harry Harlow analyzed the developing relationship between neonate macaque monkeys and an artificial, inanimate mother (Harlow, 1958). For Harlow's first publication, he spent three years observing infant macaque monkeys and their learned relationships with artificial cloth and wire mothers. Harlow's findings suggested that infant macaques preferred contact comfort so deeply that it overshadowed the variable of nursing on a wire mother (Harlow, 1958). Harlow quickly observed that when given the choice between a mother that can provide sustenance, or one that is manufactured to provide comfort, a macaque will spend the majority of its time with the identified comfort object, only leaving the manufactured comfort mother when necessary (Harlow, 1958). Harlow's macaque project was designed in an effort to assess whether or not

love/affection was a primary or secondary drive. His research resulted in noticing that in the context of a mother-infant relationship, affection became a primary drive (Harlow, 1958), confirming some of Freud's hypotheses that living beings have the instinct to love. Harlow's work at the University of Wisconsin was the first of its kind in its ability to scientifically observe the intimate relationship between mother and infant and the power of affection. This set the stage for further analysis of response patterns between mothers and infants across animal and human species.

Following Harlow, Social Learning Theory was introduced and offered that the social drive between infant and mother reinforced certain patterns of behavior that developed the structure of how an infant and mother interact with each other. The basis on which a mother interacts with her infant is dependent on what she perceives her baby's needs to be, and, as some attachment theory hypothesizes, how her primary caregivers met her needs (Ainsworth, 1969). Attachment theory, as outlined by Mary Ainsworth, refers to attachment as an "an affectional tie that one person forms to another specific individual" (Ainsworth, 1969). Ainsworth's conceptualization of Attachment is not a term that is applied to any transient relationship. Her analysis of Attachment found that it was designed to withstand distance and lengths of time.

John Bowlby, another important author in the attachment literature, theorized about how early separation may impact a child's long-term development. His theory asserted that people create developmental representations or internal working models based off expectations about the self, significant others, and the relationship between the two (Bowlby, 1969, 1973). Bowlby developed the internal working model and hypothesized that it included specific content about attachment figures and the self that is stored within a well-organized representational structure (Bowlby, 1980; Bretherton, 1985, 1990; Collins & Read, 1994). In other words, Bowlby

described that humans internalize the relationship with their most important caregivers and carry this with them into adulthood. Collins & Read (1994) suggested that the internal working model differs by person, but persists through adulthood and shapes cognitive, emotional, and behavioral response patterns. Other contemporary examples of the prolonged impact of the early attachment system is evidenced in Copy Process Theory (Benjamin, 2003) in which early representations of internalized relationships are manifested in adult romantic relationships (Critchfield & Benjamin, 2008). The internalized relationship is believed to include cognitive and behavioral details of the relationship, but also the emotional content within that relationship sustained across the lifespan.

The internal working model was one of the first pieces of evidence to suggest that attachment patterns begin in the early phases of bonding and are often influenced by intergenerational patterns (van Ijzendoorn, 1992). Bowlby posited that the internal working model transcends childhood, and hypothesized this to influence adult functioning and attitude toward parenting. Maternal history of attachment with key figures have been linked to current functioning in the roles of parenting and wellness in new mothers. For example, attachment patterns of both secure and insecure attachment can be present across generations, as suggested by the work of van Ijzendoorn (1995) who observed adult mental representations of early childhood through the Adult Attachment Interview in clinical and non-clinical samples found that in a meta-analysis mother's attachment representations tended to be indicative of the security of the child (van Ijzendoorn, 1995). Bowlby (1982) considered early representational models to be flexible, and able to adapt to incorporate new information coming from other relational influences. These relational influences may take the form of new caregivers, teachers, and other adult role models in childhood, and significant others, mentors, and mental health professionals into adulthood. However, over time and with repeated experience, an individual's

representational models become more fixed and less likely to be influenced by new relational experiences (Bowlby, 1969, 1979).

Ainsworth, Blehar, Waters and Wall (1978) demonstrated that different patterns of attachment are present and observable in infant-mother dyads by the age of 12 months, suggesting the importance of the mother-child relationship from the first year. Ainsworth's work (1979) was able to identify predictable patterns of behavior between mothers and infants if a mother left the room. The resultant work indicated that types of mothering would have an impact about how an infant approaches their mother for care. For example, Ainsworth's infants categorized as "securely attached" were observed at 12 months of age as being more apt to explore their surroundings and more independent than infants categorized as anxiously attached. Ainsworth (1979) observed securely attached infants as less avoidant and aggressive toward their mothers and adults generally. Further, securely attached infants were more likely to seek and receive physical comfort from their mothers when they required soothing.

Further attachment research has found that patterns of parenting can be impacted by a mother's lifetime experience. Critchfield & Benjamin's (2008) work found that multigenerational patterns of attachment are passed down with a significant amount of specificity. Patterns of adult behavior directly parallel patterns of relationships with early, influential attachment figures (Critchfield & Benjamin, 2008; 2010). In fact, specific attachment patterns can be identified for clinical and non-clinical samples, and further patterns of healthy and unhealthy attachment (Critchfield & Benjamin, 2010). Benjamin's developmental loving and learning theory (DLL; 2003) was created by Lorna Benjamin based off Bowlby's (1973) attachment theory. Benjamin's theory is grounded in the hypothesis that current, adult interpersonal relationships are often

shaped by internal working models created in early life based on important figures in childhood (Benjamin, 2003).

Intergenerational Transmission Through the Lens of Copy Process Theory

Copy Process Theory developed as a key element of Interpersonal Reconstructive Therapy (CPT; Benjamin, 1993/1996). Copy Process Theory outlined attachment processes are learned over the lifetime. Copy processes reflect the parallels between adaptive and maladaptive adult behavioral patterns developed and remembered in early formative relationships with primary attachment figures. Critchfield and Benjamin (2008) posited that both constructive and destructive experiences shape adult behavior. Throughout childhood, relational perceptions and social learning are encoded in memory and then "copied" in 3 basic ways in later relationships. Identification, or behaving as he or she behaved, Recapitulation, behaving as one behaved when with him or her, and Introjection, treating oneself as he or she was treated (Critchfield, 2008). These relational styles can be transmuted to romantic relationships, friendships, and of course, parenting. It is reasonable to posit that one learns to parent from one's own parents. Copy Process Theory indicates that healthy *and* unhealthy early attachment patterns very frequently are learned, internalized, and repeated in adult life (Benjamin & Critchfield 2008; 2010). In fact, non-clinical samples across studies tend to show the highest numbers of copy process. Copied behaviors were observed to include friendly and secure aspects of relating with self and others, and in Critchfield & Benjamin's (2008) study they were significant in both clinical and non-clinical samples.

In 2010, Critchfield and Benjamin utilized a within-persons approach to extend their investigation of Copy Processes to focus on person-specific patterns of copying. Critchfield and

Benjamin found evidence for all three copy processes among both male and female clinical and non-clinical participants. Rates of copy exhibited by study participants were compared to the rates of copy occurring in shuffled comparison datasets designed to replicate the base rates of affiliative behaviors embedded in the sample. Non-clinical participants demonstrated higher rates of affiliative copying (i.e. high in friendliness and low in hostility), while clinical participants were found to copy maladaptive interpersonal behaviors at significantly greater rates than those found in their shuffled comparison dataset. The most consistent results of Copy Processes reported by Critchfield and Benjamin (2008) was among college age women, who demonstrated all three Copy Processes At Best and Worst states, evident in relationships with parent and their significant other.

In 2010, Benjamin and Critchfield sought to further explore the copy rates of relationships among clinical and non-clinical populations using a within persons approach analysis. Again, non-clinical participants demonstrated higher rates of adaptive copying (i.e. high in friendliness and low in hostility), while clinical populations demonstrated higher levels of maladaptive copying (Critchfield & Benjamin, 2010). In both the 2008 and 2010 studies, Benjamin and Critchfield were able to evidence cross-sections of specific intergenerational transmission of Copy Process as learned in early relationships.

Woehrle's (2013) study analyzed the prevalence of intergenerational transmission of Identification and Recapitulation among mothers with a history of child maltreatment and non-child maltreating mothers (Woehrle, 2013). Results from Woehrle's study found that healthy mothers with secure patterns of attachment were more likely to replicate parenting styles they experienced (Identification) and act with their children in similar ways they recalled their own parents acting during their childhood (Recapitulation) (Woehrle, 2013). Rates of Identification

in the total sample of mothers were as high as 80.7%, far exceeding possibility of chance. Across the full sample ($N = 171$) in Woehrle's study, mothers' self-reports of their present behavior and responsiveness to their children significantly corresponded with their recollections of their own caregivers' behavior toward them (Woehrle, 2013).

Cushing (2003) also reported evidence of both Identification and Recapitulation in a study demonstrating associations between the parenting behavior of cocaine-addicted and non-cocaine-addicted mothers of young children and remembered relationships with the participants' own mothers during childhood, further confirming the connection between intergenerational transmission of specific patterns of interaction between parents and children.

Research on intergenerational transmission of abuse identifies several reports of retrospective endorsements of childhood experiences with aggressive, hostile parenting (Capaldi et al, 2003; Caspi & Elder, 1988; Conger et al., 2003; Huesmann Eron, Lefkowitz & Walder, 1984) predicted parental aggression towards their own children. One longitudinal investigation on the intergenerational transmission of abuse was conducted by Capaldi, Pears, Patterson and Owen (2003), whose research focused on parenting practices in a sample of 204 adolescent fathers. Capaldi et al. (2003) documented significant associations between reported poor parental supervision and physical discipline as remembered by adolescent fathers and similar parenting behavior of those same young fathers with their own young children. The authors concluded that their findings resulted in direct correlations in parenting across generations. In another study, 2011, Berlin, Appleyard, & Dodge conducted a cross-sectional examination of associations between mothers' childhood experiences of and adult functioning ($n = 499$), and results indicated that early childhood relationships impacted their reactions to their child as early as 26 months of age. In a final example of intergenerational specificity, Woehrle's 2013 study examined 171

maltreating and non-maltreating mothers. Woehrle found that mothers in the sample evidenced intergenerational copy process across both categories represented as Identification and Recapitulation. 75% of mothers (Identification at $r = .70$) evidenced identification patterns, and in the non-maltreatment group, the rate of copying their parents behaviors was at 86.7% (Identification $r = .70$). Similarly, Recapitulation rates were higher for non-clinical samples. In fact, Woehrle's 2013 study indicated that non maltreating mothers were 1.87 times more likely than maltreating mothers to evidence Recapitulation and develop healthy relationships between mother and infant (Woehrle, 2013).

Well-Being

Well-being is often conceptualized as involving separate domains of functioning that come together to provide a comprehensive view of a person. While precise definitions vary by school of thought (i.e., Diener vs Ryff) there is a general agreement that assessment of well-being includes the domains of positive emotion states, negative emotions (e.g., depression, anxiety), and satisfaction with life. Ryff (2014) argues that 6 components contribute most greatly to the conceptualization of well-being: self-acceptance, purpose in life, environmental mastery, positive relationships, personal growth, and autonomy. And in this school of thought, a person who demonstrates healthy well-being would demonstrate a positive outlook on life, whereas someone with unhealthy well-being would likely have a negative outlook on life and suffering in a number of domains in his or her life.

Well-being can be difficult to measure due to its subjective nature. As such, it is typically measured using a self-report format (Larsen, Eid & Diener, 2008). There are numerous well-being instruments being used in the psychological field. The General Well-Being Schedule was developed by Dupuy in 1977, the National health Interview Survey, the Global Life Satisfaction

Questionnaire, and the Ryff Scales of Psychological Well-Being are some of the most commonly utilized to measure well-being (Larson, Eid & Diener, 2008). Historically, research has been divided into two broad camps to understand the components of well-being: hedonic and eudaimonic (Ryff, 1989). The hedonic approach emphasizes the subjective sense of happiness, experiencing greater positive than negative emotion, and feeling satisfied with one's life. Many researchers consider this perspective of well-being too narrow, because it only assesses the person's conceptualized happiness, or the presence of more happiness than sadness. The eudaimonic approach, however, includes both moral and psychological components. This conceptualization analyzes subjective well-being, stressors, degree of mental health, degree of life meaning, and whether or not an individual is capable to get their needs met (Ryff, 1989). By nature of their definitions, eudaimonic and hedonic conceptualizations of well-being come from very different vantage points.

Nested Model of Well-being

In an effort to join these schools of thought and expand the idea of well-being, Henriques, Kleinman & Asselin (2014) developed the Nested Model of Well-Being. The Nested Model of Well-Being analyzes four contributing components. Henriques, Kleinman & Asselin refer to this as the Nested Model because of the assertion that each component exist within one another. The Nested Model structure allows for eudaimonic and hedonic models to be unified. The Nested Model's four levels are described briefly below:

The first level is that of subjective well-being. This is an individual's first-person experience of what contributes to their personal experience of wellness. Subjective well-being is most in line with the hedonic perspective. It allows for a person to be able to report on their

perceived well-being and happiness. However, contrary to the hedonic approach, the Nested Model does not allow for subjective well-being alone to be sufficient in understanding the person. Instead, the Nested Model also incorporates broad systemic domains to be incorporated in the understanding of a person's total well-being, as outlined in the eudaimonic approach (Henriques, Kleinman & Asselin, 2014).

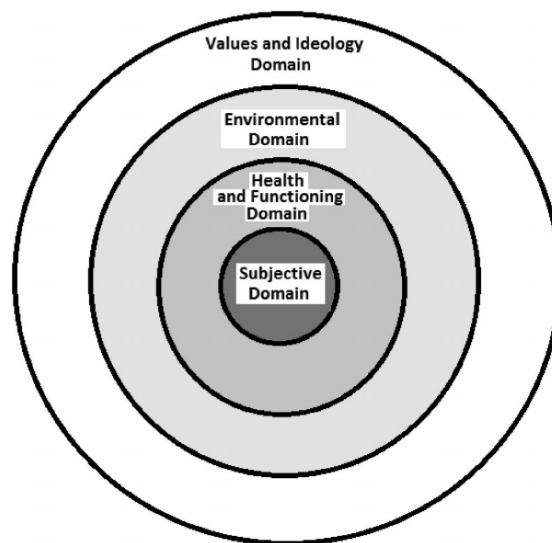
The second nested level is the health and functioning domain. The second domain is health and functioning. Health and functioning assesses the person's current physical and psychological functioning. Here, a person's personality and the breakdown into temperament and traits, adaptability, and identity would all be categorized on the same level. For instance, if someone demonstrated a high level of neuroticism and this trait resulted in high levels of anxiety, it would be noted on Level 2.

Following Level 2 is the environmental domain. The environmental domain consists of the resources in an individual's environment demonstrating that person's ability to meet their needs. A person with relatively high well-being in this domain would have access to sufficient financial resources, have a steady support system, and appropriate access to healthy foods. The fourth and final domain consists of value states. This assesses an individual's personally held values. The value state indicates how a person is living their life and what ethics they are incorporating into the navigation of their world. Someone high on the value state measure would indicate that they have professional, social, and family-based goals that are all in line with their higher held beliefs. If these beliefs are congruent, that person is more likely to endorse a higher level of well-being in this domain.

The fourth and final domain highlights the importance of relational belonging. This domain ties together how valued relationships impact a person's overall sense of well-being. The relational belonging domain analyzes professional, social, and familial relationships. On this level, a person reporting high levels of well-being would likely feel support, known and valued in their relationships (Henriques, Kleinman, & Asselin, 2014).

In its entirety, the Nested Model of Well-Being is at least in part related to the positive psychology movement. It is based not on psychopathology or the lack thereof, but instead on a sense of thriving and ability to become full actualized. In this same spirit, Nested Model of well-being also promotes an idea that maps onto the unique context of motherhood: value of identity. The implications of how identity can transform in motherhood and the impact that can have on maternal well-being has not yet been studied. Applying the unique properties of the Nested Model allow for a deeper understanding of what contributes to a new mother's sense of self and how that may change after the birth of a baby.

Figure 1. Nested Model of Well-Being (Henriques, Kleinman, Asselin, 2014).



Factors Impacting Parental Well-Being

Enhancing maternal well-being is likely to translate directly into child well-being. With this in mind, proximal and distal determinants of postpartum functioning will be reviewed in anticipation of a specialized measurement of well-being for this population – which in turn, is part of a first step in enhancing focus and bringing awareness to maternal well-being in service of enhancing developmental outcomes more generally for children.

Analysis of well-being of parents versus adults without children has resulted in different narratives. Some studies have found that parents have higher rates of well-being (Aassve, Goisis & Sironi, 2012; Nelson, Kushlev, English, Dunn & Lyubomirsky, 2013), while others suggested the opposite (Evenson & Simon, 2005). Further analysis of when and why parenthood can be linked to either higher or lower levels of well-being found that when comparing parents to non-parent populations, parents reported higher rates of finding meaning in life than nonparents, and more time spent thinking about their overall purpose (Nelson et al., 2013). Yet another study found that parents identify more positive emotions in their daily lives than nonparents, especially during times of day spent with their children (Dell Fave & Massimini, 2004; Nelson et al., 2013).

There is also evidence to support that having children may impose stressors that result in less happiness. One study found that parents report higher levels of anxiety than non-parents due to parenting stressors such as dealing with the “terrible two’s,” or assisting a teen with applying to college (Holbrook, Holbrook, & Haselton, 2011). Of course, parenting a young infant or child can lead to lack of sleep, which can also impact parental rates of well-being (Gay, Lee & Lee, 2004). There is also a financial cost of adding another member to the family which can lead to financial strain on parents, leading to financial dissatisfaction (Zimmermann & Easterlin, 2006).

Specific to new mothers, Mercer analyzed (1986) concerns of primiparous mothers over the first postpartum month. Mothers in this study reported concerns in the domains of partner, career, and body image. Mercer also identified themes related to overall concerns of mothers at 12 months postpartum. Specific examples include, “decreased mobility, increased responsibility, change in routines, and less time for other adults” (Mercer, 1986). Belsky also found that psychological resources may also influence a mother’s ability to parent and cope effectively with parenting challenges (Belsky 1993; Belsky et al., 1995), with mothers that endorse higher levels of neuroticism finding parenting more challenging. Further evidence from Zeff, Lewis, and Hirsch’s (2007) study of 15 military families repeatedly completing self-reports that military families reported when levels of intimacy among parents decreased, parenting stress increased.

Further evidence from a study that analyzed the longitudinal well-being of 134 mothers over the first 36 months of parenthood suggests that maternal satisfaction with work or school increased significantly over time, with the most satisfaction occurring at 36 months of age (Mulsow, Caldera, Pursley, Reifman, Aletha, & Huston, 2002). Muslow et al., 2002 also found that social support significantly decreased for mothers over time, as did partner intimacy.

Physical pain as a result of childbirth has also been documented as moderating a mother's ability to form an early secure relationship with her infant (Sabuncuoglu & Basgul, 2016). Further, there are a number of studies that outline that her physical and emotional functioning can impact a mother's self-confidence, and her relationship with her infant (Nelson, Kushlev, & Lyubomirsky, 2014). Therefore, incorporating all of these elements into a larger framework offers value in understanding the unique circumstances of early motherhood.

According to a 2008 study conducted by the National Institutes for Health (Webb et al., 2008), two-thirds of the postpartum women in the survey reported at least one physical health problem since childbirth, with forty five percent of women reported that problem being either moderate or major in nature. Webb et al., 2008 reported that postpartum health problems consistently correlated with measures of emotional well-being including depressive symptoms and/or diagnoses. In a sample of 1,323 postpartum women, “relatively poor emotional health was significantly related to all conditions, with increasing percentages corresponding to greater reported condition severity. Women reporting fatigue, headaches or nausea of moderate or major severity were more than three times more likely (9.6% vs. 33.1%) to also report being in relatively poor overall emotional health at the time of the survey” (Webb et al., 2008).

In sum, determinants of maternal well-being are multiple in nature. They span physical capacity, relational security, and systemic pressures. New mothers represent a unique cross-section in identity, physical changes, and emotional variability. This population is unique in that women who have recently had a baby have slightly different factors to consider when describing their well-being than a non-parent. Further, well-being may indeed be impacted by early relationships. A specifically tailored measure to assess the separate domains of functioning in newly postpartum women may offer a comprehensive view of women after childbirth.

Screening in New Mothers

After birth, mothers are typically sent home from the hospital (or selected birthing center) with some medical care knowledge about the infant and invited back to a 6-week postpartum check-up with their physician (Cheng, Fowles, & Walker, 2006). During the perinatal check-up, the major components are a physical exam and contraception discussion (Cheng, Fowles, &

Walker, 2006). Moran, Holt, and Martin (1997) found that mothers requested information on resuming normal activities, feelings of fatigue, exercise, diet, nutrition, intimacy, and emotional concerns, but often did not receive this during their one and only perinatal visit with their physician. The standard of care for postpartum mothers in the United States thus typically focuses on physical changes that are medically based (Cheng, Fowles, & Walker, 2006). This is contrasted with the state of maternal care in countries like France, where medications are reduced in cost as a result of the of the national health system, and nursing is often provided in the home before and after childbirth courtesy of the Maternal and Infant Health Service (Kerber et al., 2007).

In the United States, it is estimated that 70% of obstetricians or gynecologists assess new mothers for depression over the course of the first year postpartum (Cerimele et al., 2013), with the majority using a structured clinical interview or validated measure such as the Edinburgh Postnatal Scale of Depression (EPDS).

Because the United States has begun to make extensions toward a more integrative care model, but has not yet completely embraced this model: pediatricians, and obstetricians/gynecologists are continue to be the primary assessors of mental health issues in new mothers. Cerimele et al., (2013) found that the majority of physicians were screening for depression as their primary measure of emotional well-being. Even so, OB-GYNs did not identify 20% of women with an active depression diagnosis (Cerimele et al., 2013). New mothers' mental health is primarily screened by a physician, but would likely be identified more often if assessed in an integrative care setting by a psychologist or behavioral health professional. Integrative care has been demonstrated to make patients feel more heard,

participate in treatment because the specialties are co-located, and reduce health care costs (Ion, Jansz, Ghavam-Rassoul, 2017).

An integrative care model would also allow for a healthcare system to move away from the typical pathology model in assessing symptoms of a specific disorder such as depression, and toward the positive psychology movement for a more global understanding of maternal identity across domains. Maternal psychological stability, feelings of belonging, and positive relationships are indicative of strong, early attachment between mother and infant (McElwain, 2007). In the vein of the positive psychology movement, this study is designed to examine and promote the factors of psychological well-being that contribute to our understanding of what encourages a mother and infant dyad to thrive.

Identifying New Initiatives for the Postpartum Population

Unlike the tracking of prenatal care, few statistics exist to track women's postnatal care (Albers, 2012). As a result, the state of healthcare for women after giving birth has been critiqued as too limited to meet the needs of new mothers (Albers, 2012). Relevant concerns for the postpartum period are fatigue (Declercq, Sakala, Corry, Applebaum, & Risher, 2002), breastfeeding, (Corwin, Brownstead, Heckard, & Morin; 2005), and pain related to cesarean-section incisions (Declercq et al., 2002), and other physical pain issues related to childbirth. These health conditions can have significant impact on mothers' physical and social health. Further, there is much to suggest that maternal well-being can impact her child. The National Maternal and Infant Health Survey (NMIHS) in 1988 and longitudinal follow up 1991 and in 2001 showed that poor maternal physical health was often related to children's behavioral issues,

and a mother's feelings of self-efficacy in managing her child's behaviors at age 3 (Kahn, Zuckerman, Bauchner, Home, & Wise, 2002).

To date, there have been two databases to track postpartum maternal health in the United States. The first is the Pregnancy Risk Assessment Monitoring System (PRAMS) was created by the Centers for Disease Control (CDC) and coordinating state departments in an effort to monitor maternal behaviors and reported experiences (CDC, 2005). According to the CDC, the other postpartum database is the *Listening to Mothers Survey (I/II/III)* created by Declercq et al., 2010. Results from all of these studies indicate that mothers report significant concerns related to emotional, physical, and occupational functioning across settings. Yet, still, there exist few measures that assess women globally after birth. Instead, care is often sectioned into surveys for depressive symptoms, a physical exam, and recommendations for resuming physical and sexual activity as part of the interaction with the physician or nurse practitioner ((Declercq et al., 2010). Because mothers report more concerns that may be feasibly identified in each of these sections, there appears to be significant value in creating a measure to provide the ability for mothers to assess their personal health across several domains. This may also provide a more accessible format for physicians to assess new mothers more holistically.

Why Does Parenthood Relate to Well-Being? Exploration of Other Mediating Factors

Nelson, Kushlev, and Lyubomirsky (2014) reviewed a series of studies that evaluated why and how adults experience parenthood. They note that the most common approach to evaluating the relationship between parenthood and well-being has been to compare parents and nonparents on global assessment measures of well-being that include: happiness, life satisfaction, and depression (Nelson, Kushlev & Lyubomirsky, 2014). Previous results from global measures

have had mixed findings. Compared with nonparents, parents have been found to experience lower levels of well-being (Evenson & Simon, 2005; Glenn & Weaver, 1979; McLanahan & Adams, 1987, 1989), higher levels of well-being (Assave et al., 2012; Nelson et al., 2013), and similar levels of well-being (Assave et al., 2012). Dyrdal & Lucas found that there may be a boost in life satisfaction during pregnancy and immediately following the birth of a child, but ultimately return to baseline well-being within two years after birth (Dyrdal & Lucas, 2013).

Factors that may lead to reasons why parenting may actually be linked to increased well-being are that of being continual sources of love and connectedness. Parent-child attachment has been theorized to emerge within a year after the child's birth and to enhance well-being (Bowlby, 1982). Further supporting the role of connectedness, Aber, Belsky, Slade & Cernic, (1999) noted that mothers who described their relationship with their toddler as more positively experienced greater joy and pleasure. Parenthood may also pose the opportunity to develop new or renewed relationships with family friends, and community members than those who choose not to have children (Nomaguchi & Milkie, 2003). As noted above, attachment, and the general sense of connectedness seems to be a fertile area of analysis related to total well-being.

Existing Well-Being Measurements for Parenthood

Nelson, Kushlev, & Lyubomirsky (2014) reported that a number of separate factors contribute to the global assessment of well-being in mothers. These include: relational satisfaction, sense of autonomy, socioeconomic status, residence, social roles, fatigue, and experience of emotion. In reviewing well-being as it relates to parenthood, the authors cite eight separate parental well-being measures: 2-item Parental Satisfaction, 8-item Parent Self-Efficacy, 4-item Happiness Derived from Children, 5-item Meaning Derived from Children, Parenting

Daily Hassles, 22-item Self-Perceptions of the Parental Role Scale, and 23-item Impact on Family Scale, and 14-item Family Satisfaction (Nelson, Kushlev, & Lyubomirsky, 2014). These measures globally assess meaning and well-being that is directly resultant of parenting a child. None of the measures cited in this study analyzed global measures of well-being that applied directly to stresses in new mothers over the first postpartum year.

Summary

In sum, over the first postpartum year, women experience a number of different changes. Some physical, emotional, and still others related to the new relationship formed with their infant. Because the health system is in a period of transformation where integrative care is being more widely accepted abroad and in the United States, it appears that parenting is at the crux of health and psychological issues. Nelson, Kushlev, & Lyubomirsky (2014) note that parenting for mothers varies significantly based on reports from different studies. Some have reported increased well-being (Asassve et al., 2012; Nelson et al., 2013), others decreased subjective reports of happiness and value (Evenson & Simon, 2005; Glenn & Weaver, 1979; McLanahan & Adams, 1987, 1989). The trend of the literature has offered that parenting poses a fertile ground in which to extend research in areas of service delivery growth including: integrated care, short, efficient assessment tools for physicians, and extension of the positive psychology movement. The Nested Model of Well-Being also offers a systemic view of contributory factors that lead to overall adaptive functioning and happiness. Due to the unique factors that are associated with motherhood, there seems to be a logical link to be made between existing literature and the need for an overall assessment tool of well-being in this special population of new mothers.

As such, this study was designed to incorporate how early, formative relationships may impact maternal well-being and simultaneously create and contextualize a measure specific to

maternal well-being. Marrying how a mother's early development impacts current functioning while also assessing various domains in her life could provide a more comprehensive picture into how and why some women transition into motherhood more easily than others. Combined, the Intrex and MaWM are in a position to address all levels outlined in the Nested Model of Well-Being.

Project Aim

The overall aim of this study was to examine well-being in new mothers as well as historical factors that may contribute to it in the present. Well-being in this study has been expanded to include aspects that are unique to the role of a mother in her first year postpartum, including her relationship with her infant, partner, and with herself, as outlined by the Nested Model of Well-Being. The study also has been designed to explore possible contributions to current well-being and relatedness by early relationship experiences as measured by the Intrex.

According to Copy Process Theory (Benjamin, 2006), early patterns of relatedness with self and other are often learned, internalized and repeated in one of three basic forms: Identification (be like the other person), Recapitulation (behave as if the other person is still present and in charge), Introjection (treat the self as he/she was treated by the other person. In prior work, such interpersonal patterns have been empirically demonstrated (Critchfield & Benjamin, 2008; 2010; Critchfield, Benjamin, & Levenick, 2015) and underscore parental input as being of primary importance in shaping adult patterns, whether leading towards pathology, or towards health and resilience. The present study used the well-being lens to explore potential links between remembered past and current relational patterns among new mothers after the birth of their first child, conceptualized as a key developmental “moment” for intervention.

The present study also sought to analyze well-being in new mothers by utilizing the newly developed Maternal Wellness Measure (MaWM). Using the Intrex and MaWM measures together provides a comprehensive review of a mother's relational history and current functioning. The MaWM specifically analyzed six domains of functioning specific to new mothers. This includes: Physical Health, Emotional, Relationship with Self, Relationship with Others, Resources, and Meaning of Parenthood. In this study, we specifically assessed two time points: before pregnancy and after childbirth to determine if participants rated any individual shifts in their functioning across domains. Further couching maternal well-being within participants' relational history by using the Intrex may also provide a more comprehensive look at factors that may influence maternal functioning over the first postpartum year.

Chapter 3: Method

Participants

Procedures used in this study were approved by the JMU Institutional Review Board. Mothers, 18 years of age or older, that have had a first child in the timeframe of one year or less were recruited for this study to assess parenting perspectives and maternal well-being after childbirth. Participants were recruited using family-oriented organizations in the area surrounding JMU (i.e., Harrisonburg as well as Rockingham, Page, and Augusta Counties). Businesses that provided services (e.g., clinic offices, daycare facilities) or otherwise are accessed (e.g., Children's Discovery Museum, libraries, and coffee shops) by women that have recently given birth were targeted to ensure a wide breadth of affordable and public postings across the community. A flyer is included to provide illustration of the recruitment technique (appendix A). This flyer provided a website in which participants were able to access the survey.

They were also able to access the website by using a QR code in which they could use their smartphone to directly access the survey with more ease, should the participant have preferred this method. The survey was also available through online means via several Facebook pages for the local birthing center and neighborhood mothers groups in Harrisonburg areas. Through word of mouth, it was also received by participants outside of the immediate geographical area, and appeared to be completed by two participants in the northern Virginia area.

Women that were 18 years or older were the only participants requested to complete the online survey after acknowledging their age. This was listed in the consent form. No identifying information was collected of the participants due to the sensitive nature of the survey and thus, demographic information is not available. This was done primarily to preserve privacy and incentivize participation in a small community.

Twenty-one participants completed at least some portion of the online questionnaire packet, and 6 completed it in its entirety. We infer that available time and energy was the reason for attrition across the length of the survey. Mothers tended to drop out of online responding after natural completion of various sections rather than at random, and rather than in apparent reaction to specific items.

Measures

Three measures were provided to mothers for reporting their individualized experiences of the first postpartum year for new mothers using (1) the Maternal Well-Being Measure (MaWM: Kennedy & Critchfield, 2016), (2) aspects of their relationship with self, baby, her own parents in childhood, using the Intrex Questionnaire (Benjamin, 2000), and (3) early psychosocial trauma experience (ACE: Felitti et al., 1998). These three measures were selected

to evaluate a global picture of maternal well-being and assess how early relationships may impact adult functioning and the components that contribute to a global picture of primiparous well-being.

Maternal Well-Being Wellness Measure

The Maternal Well-Being Measure (MaWM) is a six-scale measure that sought to assess concerns in separate domains of well-being in a mother (see Appendix B). These are: physical well-being, emotional well-being, relationship with self, relationship with others, ability to access resources, and the meaning of parenthood in life. The conceptual framework for this measure is based in part on the work of Henriques (2013), and based off mounting evidence that well-being in parenthood is impacted by a number of different contributory factors that include: connectedness, financial resources, and positive or negative emotionality (Nelson, Kushlev, & Lyubomirsky, 2014).

In the MaWM, throughout each of the six areas specific to mothers, participants completed domain well-being ratings since childbirth and before pregnancy. The goal in evaluating mothers at these two time points was to evaluate whether or not a new mother reported a shift in their well-being as remembered before pregnancy to after childbirth. In the six domains, participants were able to identify checkboxes and expand on their concerns and/or positive elements to each domain through free response related to each domain. The rationale in creating the measure in this fashion was to have mothers self-identify any comprehensive shifts in their well-being amongst domains and then specify what concerns were specific to their birthing narrative, and elaborate on their personal experience in their own words. Every mother

utilized each component of the survey. The MaWM was specifically designed to measure comprehensive ratings and then target specific concerns within each domain.

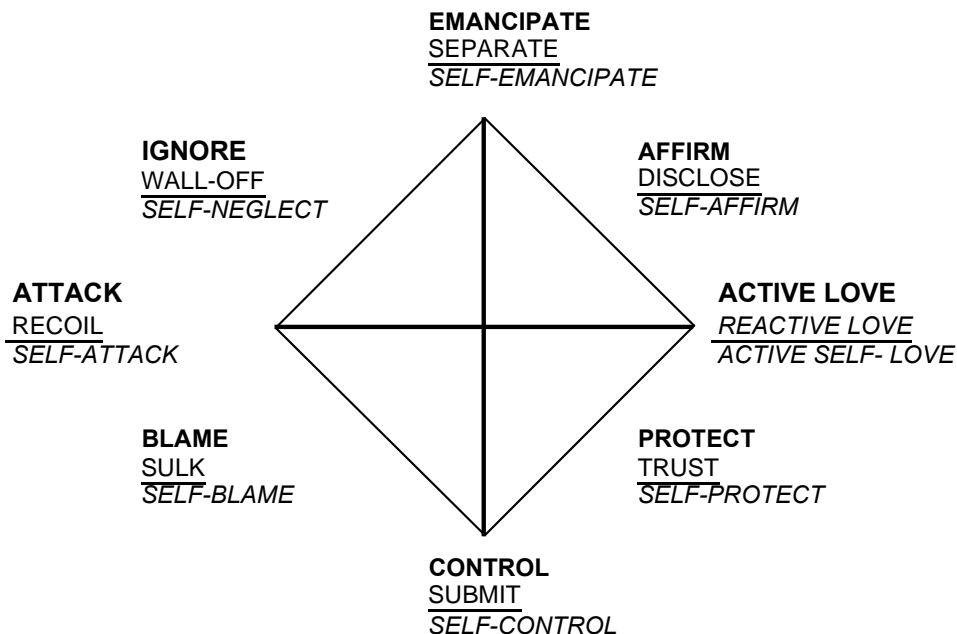
Henriques created the Nested Model and it emphasizes five concentric, interconnected states of well-being. These systems are Subjective, Physical and Psychological Health, Environmental, and Values/Meaning (Henriques, 2013). The Nested Model acted as a basis on which specific literature surrounding relevant maternal experiences were then integrated: breast feeding, postpartum recovery, identity development, physical recovery, and relationships to assess unique concerns for new mothers. The initial development of the MaWM included multiple drafts reviewed by the researcher, faculty, a small subsample of new mothers, and a local pediatrician's office to obtain further input on domain relevance. Initial psychometric properties are reported in Results.

Intrex Questionnaire

Copy Process Theory (Benjamin, 1979, 1996) was developed over a period of over thirty years of research using the Structural Analysis of Social Behavior (SASB) model Benjamin (1979, 1987, 1996). The SASB describes human behavior in interpersonally (an individual relating to another) and intrapsychic (an individual relating to him or herself) behaviors. The SASB circumplex model consists of three dimensions that lead to a position on the model: focus, affiliation, and interdependence. The horizontal dimension looks at affiliation: with extremes of hate on the left and strong love on the right. On the other, vertical dimension, there are varying degrees of interdependence. On the bottom, there is complete control and enmeshment, whereas the top is the extreme of differentiation and autonomy (Benjamin, 1979; 1996). Figure 2 is a simplified version of the SASB model and outlines three types of interpersonal focus: other, self, and Introject. Focus on other behaviors (displayed in bold in Figure 2) identifies behaviors that

are to, for, or about another person. An example of this is the action of emancipating another person to allow space. Focus on the self behaviors (underlined in Figure 2) are to, for, or about the self. An example of focus on the self is to wall off from another person by taking hostile distance. Finally, the behaviors that focus on the Introject (italicized in Figure 2) describe behaviors directed inward from the self to the self. An example of an Introject is self-protection in the face of an identified threat. Friendly Introject states are expected to correlate positively with higher ratings of well-being as measured by participants' relationship with self as measured by the MaWM.

Figure 2. Simplified SASB cluster model. Focus on Other, Self, or Introject are respectively indicated by **Bold**, Underline, and *Italic* fonts. From: Benjamin, L.S. (1996). *Interpersonal diagnosis and treatment of personality disorders, Second edition*. N.Y.: Guilford. Copyright the Guilford Press.



Intrex (medium form) questionnaire (Benjamin, 2000) is an empirically validated survey to assess relationships with important figures in one's life. Specifically, for this study, the participants rated their remembered experience of own parents in the past, as well as her relationship with herself and her infant in the present. The Intrex Questionnaire was developed out of decades of research from the SASB model (Benjamin, 2000). The Medium form was used in the present study and offers two questions for each point in Figure 2.

Participants utilized the Medium form Intrex Questionnaire for this study. It included 128 specific questions that analyzed How the participant viewed their relationship with Self At Best and Worst states, Relationship with Infant At Best and Worst, and the relationship with early caregivers as remembered by each participant.

The Intrex measure directly relates to the Structural Analysis of Social Behavior model (SASB) and is built around three constructs: behavioral focus, affiliation, and interdependence. Figure 2 also outlines the two dimensions: the horizontal dimension, which is Affiliation (AF measures degrees of hostility to friendliness while the vertical dimension of Autonomy (AU) spans the extremes of differentiation (give autonomy; be separate) to enmeshment (control; submit). Each of the questions outlined on the Intrex corresponds to the SASB model. For example, the item "I left him speak freely, and warmly tried to understand him even if we disagree" measures Affirming and Understanding Behavior. Each of the Intrex questions were assessed using a likert scale that ranged from 1 (not at all true) to 100 (very true). Participants answered 16 questions that correspond with each of the SASB circumplex domains. Participants then repeated these questions in the context of each of the separate relationships (Self At Best and Worst; Infant At Best and Worst; Remembered relationship with Mother and Father).

Copy Process Analysis

Specific Copy Process analysis was also completed to apply a mixed methods approach to assess mothers' individual reports of remembered childhood experiences and linking that to the present. Each profile that had completed the Intrex survey in its entirety was applied to a within-subject comparison, and that profile provided illustrative line graphs that outlined how At Best and Worst states correlated with early formative relationships and relationship with infant.

The results of the Intrex directly match the eight domains of the simplified SASB circumplex model, and provided detailed information about how the person interacts with self, parents, and infant. Intrex results also indicated whether or not that profile demonstrated repeated intergenerational patterns from early childhood. The Intrex has a history of strong validity and psychometric properties across a variety of settings (Benjamin, 2000).

The resulting profile would be deemed similar between a participant and rated relationship if the correlation value was $r = .71$ or greater, corresponding to 50% (or more) shared variance. For this study, a strong positive correlation in any relevant profile comparison would indicate the presence of copy process for a single case. It should also be noted that copy processes are not mutually exclusive. Relationships with parents may be Introjected, Identified with, and/or Recapitulated. Copying can occur in Best and Worst states. Inclusions of all forms of copy processes can be facilitated by the Copy Process software program that analyzes correlations among all reported profiles (Benjamin, 2010).

In each profile, analysis of copy process was assessed by correlating the 8-point profile from SASB (Figure 2) with another 8-point profile (e.g., I focus on my infant in a similar way that my father focused on me, suggesting Identification with father).

Figure 3
Intrex Ratings Used to Define Each Copy Process Profile

<i>Copy Process</i>	<i>Intrex: Current Behavior</i>		<i>Intrex Parental Relationships</i>
Introjection “I treat myself as s/he treated me” <i>Example:</i> Self-Blame (3-6) at worst now parallel’s Father’s Blame (1-6)	Introject at best Introject at worst	Compared with →	Mother focused on me Father focused on me
Identification “I treat others as s/he treated me” <i>Example:</i> Control (1-5) of infant at best parallels Mother’s Control (1-5) of me	I focus on my infant at best I focus on my infant at worst I react to my infant at best I react to my infant at worst	Compared with →	Mother Focused on me Father focused on me Mother reacted to me Father reacted to me
Recapitulation “I act as if still with him/her” <i>Example:</i> Submit (2-5) to infant at worst now parallels my Submit (2-5) to my mothers control	I focus on my infant at best I focus on my infant at worst I react to my infant at best I react to my infant at worst	Compared with →	I focused on mother I focused on father I reacted to mother I reacted to father

Figure 3: In this study, relationships were reviewed between current self-image, remembered relationships with parents, and current relationship with infant. The above table provides an example of how the Intrex interacts with the SASB model to result in copy process that is ultimately represented on individualized profiles.

Adapted from: Critchfield, K. L., & Benjamin, L. S. (2008). Internalized representations of early interpersonal experience and adult relationships: A test of copy process theory in clinical and non-clinical settings. *Psychiatry*, 71(1), 71-92.

Adverse Childhood Experiences Questionnaire

Finally, the participants are asked to complete the ACE self-report questionnaire, short form. This questionnaire was developed as collaboration between the Health Appraisal Clinic in San Diego and the Centers for Disease Control and Prevention (Felitti et al., 1998) intended to measure the relationship between previous trauma and types of health outcomes. The short form is a 10-item measure to assess participant history and whether or not they endorse items relating to abuse and/or adverse circumstances in their history across domains. The domains identified in the ACE questionnaire are: emotional and physical abuse, neglect, abuse associated with living in a dysfunctional household, and substance abuse. A study put forth by Bruska and Tessin (2013) using the ACE short form assessing 101 women ages 18-71 years of age resulted in a Cronbach's alpha of .81 indicating both valid and reliable internal consistency of the abbreviated form (Bruska & Tessin, 2013). This assessment measure was used to complement the Intrex to assess whether or not the person experienced adverse circumstances and whether or not these events have impacted the mother's report of well-being after the birth of her first child. The ACE short form has been shown to be well tolerated in the public domain (Felitti et al., 1998).

Statistical Analysis

Inspection of basic correlations were implemented to test for presence of links consistent with the idea that early experiences with parental attachment figures and maternal well-being, self-concept and specific aspects of relating with their infant. Psychometric properties of the well-being measure (MaWM) such as internal consistency measures, and descriptive statistics were also completed to inspect patterns on the MaWM along with validating data in relationship to the Intrex and supporting qualitative responses.

To assess for individualized copy process analyses, this project followed procedures outlined in Critchfield & Benjamin 2010 which consist of comparing different relationships and states on a within-subject basis as would be done in the case of an individual assessment, one mother at a time. Each within subject profile consists of the 8 raw cluster scores (see Fig. 1) from the Structural Analysis of Social Behavior (SASB) model and are compared using Pearson's correlation applied to parallel sets of SASB clusters using procedures put forth by the recommendations outlined in the Intrex manual (Benjamin, 2000). Specifically, there were two sets of analyses. First, the mother's Intrex results were inspected for copy process. Utilizing Base Rate (BR) information outlined in the 2010 study, profiles that match .8 or higher will be used to compare to within subject designs.

In a second set of analyses, comparison samples were also constructed from comparing within-subject samples to the base rate information to ensure specificity in each profile. Copy process emerged when there was evidence of stronger within-subject matches than when compared with the base rate database developed in Critchfield & Benjamin's 2010 study. Because of the small sample size, detailed within-profile analysis for the 6 completed cases was analyzed.

Chapter 4: Results

Twenty-one total participants completed the MaWM measure, and 14 went on to complete additional parts of the online questionnaire pertaining to self-treatment. On the Intrex measure, 15 participants completed the first section of rating the relationship of self at Best and Worst states, 9 went on to evaluate their relationship with their infant, and 6 mothers completed the Intrex profile questions that assessed their relationship with their parents as remembered

from ages 5-10. Six mothers went on to complete the ACE questionnaire, allowing full comprehensive clinical assessment of only those profiles.

Table 1

<i>Total Participants Completing Measure</i>	
Section of Survey:	Total Number of Participants Completing portion:
MaWM	21
Intrex Introject At Best	15
Intrex Introject At Worst	15
Intrex Baby At Best	9
Intrex Baby At Worst	9
Intrex Mother at Best	6
Intrex Mother at Worst	6
Intrex Father	6
Adverse Childhood Experiences Questionnaire (Short Form)	6

Results are presented first for the MaWM only, followed by relationship with available ratings from the Intrex, followed by comprehensive assessment of the 6 that provided all data. The focus of the presentation will cover both (1) properties of the MaWM instrument, (2) relevance of well-being as a construct in the lives of mothers, including implications for their infants.

Maternal well-being measure (MaWM)

Table 2 provides means and standard deviations for retrospective reports of before pregnancy and present experiences of the period after childbirth. T-tests were all measured using paired samples.

Table 2

Wellness assessed from before pregnancy (retrospective rating) to after childbirth for MaWM domains

<u>Subscale:</u>	<u>Before Pregnancy</u>		<u>Current / After Childbirth</u>			
	Mean	SD	Mean	SD	<i>N</i>	<i>t</i> (paired)
Physical	1.86	1.39	.71	1.68	21	-2.75*
Emotional	1.48	1.36	1.00	1.82	21	-1.13
Relationship with Self	1.19	1.91	1.14	1.62	21	-0.10
Relationship With Others	1.86	1.24	1.48	1.40	21	-1.71
Access to Resources	2.05	.97	2.10	1.18	21	.252
Meaning of Parenthood	1.71	1.38	2.29	.96	21	1.743
Total Well-Being	1.69	.87	1.45	1.08	21	-1.254

df's = 20; each scale ranges from -3 to +3; * indicates that $p < .05$

Women in this sample did not report significant reductions in well-being after childbirth, except in the physical domain. Physical well-being scores averaged at 1.86 prior to pregnancy, and after giving birth well-being was an average of .71 across respondents ($n = 21$). The Physical well-being category demonstrated statistical significance as measured by a paired t-test, $t(20) = -2.75$, $p < .01$, indicating mothers reported significant physical changes from before pregnancy to after childbirth.

The other categories: emotional well-being, Relationship with Self, Relationship with Others, Access to Resources, and Meaning of Parenthood were non-significant. Overall, women endorsed neutral or positive values on the scale suggesting that women perceive their well-being in a range that can be characterized as having few concerns, and instead trending toward the “healthy/happy” or “confident” end of the rating scale.

Detailed information about percentages across domains is available in Table 3. Frequently endorsed concerns in the Physical domain tended to be: eating, nutrition, and most prominently: sleep, with 86% of participants endorsing concerns. In the Emotional domain, the majority of mothers endorsed concerns in the worry/fear category (67%), with sadness/crying and anger/irritability following close behind. Two mothers (9%) in the sample endorsed unusual experiences since the birth of their baby. Under the category of Relationship with Self, mothers reported two major concerns: making time for the self, and body image. Under the domain of Relationship with Others, 62% of women endorsed concerns with their partner, 52% endorsed concerns with their friends, and only 14% endorsed concerns with their baby. In the Resources domain, there was a smattering of reported concerns, with childcare and financial stress being the leading stressors. Finally, in the domain of Meaning of Parenthood, all three domains were endorsed by one-quarter to one-third of mothers: 38% of mothers reported concerns about parenting fitting in with their larger identity, 24% of mothers reported concerns about their values, and 33% reported concerns about how others see them since the birth of their child.

The aggregate picture of a mother in this sample is as someone who overall feels they are doing well, while also endorsing problems with sleep, anxiety, body-image, and making time for herself. A fair number of mothers express concern about the relationship with her partner, her experience of crying or feeling sad, as well as eating, nutrition, and exercise. Rarely endorsed were problems with medication use, disturbing thoughts or unusual experiences, relational problems with her child/children or family of origin, or more severe forms of resource problems such as housing, information, or baby needs.

Table 3

Concerns Endorsed by MaWM Domain

<i>Domain and Sub-domain</i>	<i>frequency endorsed</i>	<i>%</i>
<i>Physical</i>		
Eating	12	57%
Nutrition	12	57%
Sleep	18	86%
Physical Pain	6	29%
Exercise Options	11	52%
Nursing	9	43%
Medication Use	3	14%
<i>Emotional</i>		
Anger/Irritability	10	48%
Sadness/Crying	11	52%
Worry/Fear	14	67%
Disturbing Thoughts	5	24%
Unusual Experiences	2	10%
<i>Relationship with Self</i>		
Body Image	15	71%
Self-Confidence	9	43%
Making Time for Myself	18	86%
<i>Relationship with Others</i>		
My baby	3	14%
My Partner	13	62%
My Other Children	2	10%
Work/School/Community	7	33%
Family of origin	4	19%
Lack of Connection with Others	10	48%
Friends	11	52%
<i>Resources</i>		
Information about Parenting	4	19%
Financial Resources	7	33%
Childcare	7	33%
Housing	1	5%
Healthcare	5	24%
Baby Needs	4	19%
<i>Meaning of Parenthood</i>		
Concerns about parenthood	8	38%
Fitting in with life/identity		
Concerns about values	5	24%
Concerns about how others see me	7	33%

Table 4

Pearson Correlations for Well-Being Before Pregnancy

	Physical	Emotional	Relationship With Self	Relationship With Others	Access to Resources	Meaning of Parenthood
Physical	1					
Emotional	.829*	1				
Relationship With Self	.594*	.787*	1			
Relationship With Others	.482	.309	.435*	1		
Access to Resources	0.042	.246	.344	.131	1	
Meaning of Parenthood	-.126	-.083	-.243	-.025	.530*	1

* Indicates that ($p < 0.05$)

The well-being scale rated for prior to pregnancy included six items with internal consistency measuring $\alpha = .68$. There were strong item-total correlations for Physical, Emotional, and Relationship with Self domains (r 's $> .70$) across categories and seemed to form the core of the measured construct of well-being in that context. Meaning of Parenthood prior to

pregnancy stood out in contrast to these items ($r = -.05$). Relationship with Others ($r = .23$) and Access to Resources ($r = .20$), had a low item-total correlation¹.

Table 4 outlines Pearson correlations after childbirth. A different pattern of relationships occur relative to ratings made before pregnancy. The well-being scale for well-being after childbirth included six items with internal consistency measuring $\alpha = .83$. There were strong item-total correlations for Physical, Emotional, Relationship with Self, Relationship with Others, and Meaning of Parenthood Domains. Access to Resources was in contrast to the other domains ($r = .35$), as might be expected since participants reported receiving much of their information through Google.

Table 5

Pearson Correlations for Well-Being After Childbirth

	Physical	Emotional	Relationship With Self	Relationship With Others	Access to Resources	Meaning of Parenthood
Physical	1					
Emotional	.788*	1				
Relationship With Self	.733*	.424	1			

¹ Given the small sample, non-parametric comparison of these tests were run using the Wilcoxon Signed-Ranks Test statistic, yielding the same pattern of results.

Relationship With Others	.529*	.373	.585*	1		
Access to Resources	.217	.467*	-.007	-.015	1	
Meaning of Parenthood	.583*	.604*	.456*	.119	.304	1

* Indicates that ($p < 0.05$)

Overall, there were strong correlations between Physical well-being and the rest of the domains with the exception of access to resources. Meaning of Parenthood, notably, was significantly correlated with the domains of Emotional Well-Being and Relationship with Self. These correlations indicate that the Meaning of Parenthood newly emerges as a central aspect of maternal well-being after childbirth, while it appears uncorrelated prior to taking on this new life role.

Internal consistency of well-being after childbirth was estimated as $\alpha = .82$, suggesting that the domains seem to gain coherence together in context of new motherhood². Moderate-to-strong item correlations were observed across categories (.54 to .83), with the exception of Access to Resources (corrected item-total $r = .35$). Overall, total well-being was significantly correlated with every domain after childbirth, and suggests that the event of childbirth changes those elements that are involved in maternal well-being.

² In the process of reviewing the qualitative responses, it was discovered that several mothers noted additional children and so were not actually first time / primiparous mothers. Reanalysis of the data without these cases results in the same overall conclusions about the MaWM's reliability, validity, structure, and relation with external measures. Data from the larger sample are presented here given the slightly enhanced power, coupled with observation of no key differences when multiparous mothers are excluded.

Correlations from before pregnancy to after childbirth show that total well-being is significantly correlated, $r(20) = .62, p < .01$. In regards to specific domains that were unpredictable in their outcome from pregnancy to after childbirth, Physical, Emotional, Relationship with Self, Relationship with Others, and Meaning of Parenthood were all categories that indicated that regardless of functioning prior to pregnancy, these domains could be shifted after childbirth. What remained consistent across these two time points (as remembered by participants) was the general well-being picture, Relationship with Others, and Access to Resources (see Table 6).

Table 6

Correlations as Remembered Prior to Pregnancy to After Birth

Total Well-Being	.62*
Physical	.24
Emotional	.28
Relationship with Self	.28
Relationship with Others	.71*
Access to Resources	.70*
Meaning of Parenthood	.22

* Indicates that ($p < .05$)

Comparison of Qualitative and Quantitative Responses

Below is a descriptive table that includes selected mothers' ratings by domain after birth alongside their qualitative responses. Responses were selected by reviewing the ratings of each mother and including responses that span the spectrum of reporting.

Table 7

Selected Qualitative Responses By Domain, Including Quantitative Scale Rating (low to high) and specific concerns endorsed

<u>Physical Well-Being</u>	<u>Quantitative Scale Rating</u>	<u>Checkboxes Endorsed</u>
“Postpartum pain, hemorrhoids make it extremely hard to function”	After Childbirth: -2	Physical Pain; Sleep
“Exhaustion a lot of healthy choices like eating well or making time to exercise so overall I don’t feel well.”	After Childbirth: 1	Eating; Nursing; Exercise; Sleep; Pain
“Healthy, happy need more physical activity.”	After Childbirth: 3	None
<u>Emotional Well-Being</u>	<u>Quantitative Scale Rating</u>	<u>Checkboxes Endorsed</u>
“I was hospitalized five days for postpartum anxiety and depression. I’m in treatment now, so it’s better. Still a struggle though.”	After Childbirth: -2	Anger/Irritability; Sadness; Worry/Fear; Disturbing Thoughts

<p>“I’ve always been an anxious person, but having a kid is uniquely terrifying.”</p>	<p>After Childbirth: -1</p>	<p>Anger/Irritability; Sadness; Worry/Fear</p>
<p>“Since childbirth I have noticed that I am very emotional or passionate about things, even more than I was prior to having my son. I get teary eyed or even cry about little things, such as my sister selling her own babies crib; finding out other friends are pregnant; thinking about my son growing up; thinking about not nursing my son after 1 year; seeing other friends TimeHops of their kids as babies and thinking about how fast they grew up.”</p>	<p>After Childbirth: 3</p>	<p>Worry/Fear</p>
<p><u>Relationship with Self:</u></p>	<p><u>Quantitative Scale Rating</u></p>	<p><u>Checkboxes Endorsed</u></p>

<p>“I am very dissatisfied with my appearance. I do not feel attractive or beautiful anymore.”</p>	<p>After Childbirth: -3</p>	<p>Body Image; Self Confidence; Making Time for Myself</p>
<p>“I’m adjusting to the notion that my body will never be the same, that my personal identity has shifted in a big way, and having twins makes it harder to process any of it.”</p>	<p>After Childbirth: 1</p>	<p>Body Image; Self Confidence; Making Time for Myself</p>
<p>“I’m struggling between making time for my professional development and being a new mother.”</p>	<p>After Childbirth: 3</p>	<p>Body Image; Making Time for Myself</p>
<p><u>Relationship With Others</u></p>	<p><u>Quantitative Scale Rating</u></p>	<p><u>Checkboxes Endorsed</u></p>
<p>“I just don’t have time to make or maintain good relations.”</p>	<p>After Childbirth: -1</p>	<p>My Partner; Lack of Connection with Others; Friends</p>
<p>“I don’t have friends anymore. I don’t have time to socialize. I love my kids but I didn’t think I’d lose everyone in the</p>	<p>After Childbirth: -1</p>	<p>Work/School/Community; Family of Origin; Friends</p>

process.”

“The hardest relationship has been with my partner. There is very little focus on preparing men for being dads and so much falls on the mom in the early months....”

After Childbirth: 2

My Partner

Access to Resources

Quantitative Scale Rating

Checkboxes Endorsed

“I feel like I am barely treading water as it is, and adding anything else to my plate feels overwhelming.”

After Childbirth: 0

Financial; Childcare;
Healthcare

“Nothing has changed, I feel like I have resources.”

After Childbirth: 1

None

“I have become a master of Google! I arrive at doctor’s appointments obsessively armed with information.”

After Childbirth: 3

None

Meaning of Parenthood

Quantitative Scale Rating

Checkboxes Endorsed

“It’s on me for having a baby because he doesn’t like kids, but I have had to come to

After Childbirth: 1

How parenthood fits in my life, identity; concerns about

terms with that and realize he
never praised me before I had
a baby either.”

“I have been surprised at how
easy it has been to fall in love
with and nurture my child.”

After Childbirth: 3

how my identity or values
have changed; concerns about
how others value me

None

“I placed a lot of stock of
identity in my profession, and
now I don’t find as much
meaning in what I do outside
of being a good mother.”

After Childbirth: 3

Concerns about how my
identity or values have
changed

Above, Table 7 provides some examples to how the qualitative descriptions can complement quantitative ratings made by participants and offer face-valid evidence that the scales and checkboxes included on the MaWM are informative and well-calibrated. Short narratives completed by participants appear to also reflect their scores. Mother that experienced more distress across domains of functioning evaluated themselves as lower on the quantitative ratings and also expanded on their experience with a short commentary on what issues were most relevant to them.

Concurrent Validity Using Intrex ratings

Mothers were provided the Intrex measure to assess their self-treatment when they are in their self-defined at Best and Worst states, their relationship with their infants in Best and Worst states, and their remembered parental relationship with both their mother and father in childhood (general picture of how each caregiver treated them). Each of these domains received fewer responses as attrition occurred across the online assessment. The resulting loss of power limited the ability to detect any but the strongest effects, and are in particular need of replication.

Where results were found, they tend to validate the MaWM as a measure of maternal well-being. Table 8 outlines each of the MaWM domains after childbirth and the correlations with a mother's affiliative self-treatment on the Intrex measure. The vertical interdependence dimension did not show correlation with well-being. As expected, the highest correlation was with the Relationship with Self scale, and secondary correlations with scales that have meaningful relationships with ways of treating the self.

Table 8

MaWM Domains Correlated with Maternal Self-Affiliation on the Intrex

Well-Being Domain	Current / After Birth	Current/After Birth
	At Best	At Worst
Physical	.75*	.68*
Emotional	.41	.62*
Relationship with Self	.77*	.53*
Relationship with Others	.54*	.56*
Access to Resources	.13	.20
Meaning of Parenthood	.18	.27
Total Well-Being	.65*	.67*

At Best n = 15; p < .05; At Worst n = 15; p < .05

In the above table, new mothers endorsed that their Physical well-being, Relationship with Self, and Relationship with Others was correlated in both At Best and Worst states. The other categories in an At Best were not correlated, indicating that being “At Best” did not necessarily result in improved Emotional well-being, Access to Resources or Meaning of Parenthood. Interestingly enough, At Worst states were more highly correlated with domains of well-being. Results from the above table also suggest that the Meaning of Parenthood is largely unaffected across states of well-being. The Relationship with Self domain is most strongly correlated with the Intrex rated for the “at best” state, offering validity evidence to the MaWM.

Analysis of relationship patterns with infants

Total well-being after childbirth shows significant correlation with a mother's degree of affiliation, or 'lovingness' to her child at best ($r = .73, n = 15, p < .05$). This indicates that mothers who report greater well-being also see themselves as behaviorally expressing more love toward their infant.

The correlation matrix data suggests that overall well-being finding is replicated in the physical and emotional well-being domains as well ($r = .68, n = 15, p < .05$; $r = .62, n = 15, p < .05$) This suggests that physical and emotional well-being is particularly important in contributing to a mother's overall well-being picture, and therefore, can impact the ability for a mother and infant to form a bond from the early stages of parenthood. A well mother can enhance positive connections with her infant.

Another significant correlation involving the interdependence dimension of the SASB model ($r = -.83, n = 9, p = .15$) was observed between the self-rated Meaning of Parenthood, and the degree to which a mother perceives her infant to be dependent on her (as opposed to being separate or walled-off). This indicates that mothers that view their infants as more reliant on them may also report feeling more satisfied in their role as a parent (or vice versa). Alternatively, participants that rated their infant as being separate from her were more likely to report problems in the area of Meaning of Parenthood.

Further correlations include that a mother who perceives her child as joyful carries a more positive view of the mother-infant relationship ($r = .81$) as rated by the participants. Further, if a mother reports having a healthy relationship with herself on the MaWM she is more likely to

delight in being around her baby ($r = .88$) as measured by the corresponding Affiliation vector of the Intrex.

If replicable, these findings may be consistent with the underlying theory of attachment. Maternal well-being ratings that are higher indicated stronger relationships between mother and infant. In dyads where mothers rated themselves as having higher well-being ratings, they also rated their relationship with their infant as more joyful. Previous attachment literature has outlined that mother-infant relationships that are secure and warm often lead to healthier developmental outcomes including more scaffolding, security, and warmth (Ainsworth, 1979; Woehrle, 2013). Warm, loving relationships in infancy lead to children that are better adjusted and more apt to learn and grow in a supportive environment, confirming that early states of maternal well-being may impact child development.

These results are also indicative that the effects are sufficiently large to be detectable in this study despite small sample size. Insufficient data is available to detect aggregate effects related to a mother's experience of being parented (i.e., copy process). Instead, N=1-at-a-time copy process assessment procedures were used with the subset of cases ($n = 6$) that provided complete data about their early history and provide a qualitative lens on maternal experience in the study sample.

Adverse Childhood Experiences Questionnaire

While the sample size is too small to detect significant effects, the direction of the relationship between early trauma and maternal well-being is consistent with theory. Greater amounts of early trauma trend in the direction of a negative correlation with maternal wellbeing ($r = -.63$, $n = 6$, ns).

Intrex-Based, Qualitative Analysis of 6 Cases

Six cases in this study completed the protocol in its entirety, including the Intrex measure. This allows for inspection of interpersonal copy process at the level of N = 1-at-a-time for these mothers. We were thus afforded a qualitative view of these participants at the level of an individualized assessment (without interview) based on combined ratings from the MaWM, Intrex (self-concept at best and worst, relationship with infant at best and worst, relationship with each parent in childhood), and the ACE measure of early trauma. Relevant data are presented alongside Intrex information below.

The clinical method recommended by Critchfield & Benjamin, 2010 is followed. Every profile rated by a given mother is compared with every other profile for the same mother using a correlation coefficient (e.g., mother's self-concept at best is correlated with memory of grandmother focusing on her in childhood; then mother's self-concept at worst is compared in the same way). Figure 3 outlines specific combinations of copy process. There are three ways to copy a relationship. The first is Introjection, or, "I treat myself as s/he treated me", the second is Identification "I treated others as s/he treated me," and the third is Recapitulation. Recapitulation is present if the person is able to acknowledge, "I act as if I am still with him/her." These elements of copy process are compared with current behavior at best and worst toward the infant and analyzed again the participant's remembered relationship with her parents as a child. For example, to identify how the copy process of Introjection takes place, one would analyze how the introject at best (how I see myself at best) compares with how the participant's mother focused on her as a child. Then, the same would occur for the at worst state. This continues for each of the separate areas of copy process. Copy Process was evident in ratings provided by all 6 mothers.

One hypothesis in this study was that lower scores on maternal well-being would be associated with higher scores on the SASB disaffiliative or hostile clusters (e.g., Cluster 6- Criticize/Blame; 7 – Attack/Recoil 8 – Ignore/Wall Off) and lower scores on the Affiliative clusters (Clusters 2- Affirm/Disclose; 3- Love; 4- Protect/Trust). High and low SASB cluster scores have previously been defined as any scores that are more than two standard deviations away from normative samples in the direction of lowered friendliness, elevated hostility, or extremes (high or low) of clusters on the vertical (interdependence) axis. Because of the small sample, individualized profiles were examined in great detail. As predicted, those mothers with the lowest well-being scores after birth (Amy (MaWM total .67), Matilda (.67), Rachel (.17) and Lauren (-.17) demonstrated histories of maladaptive relationships with at least one caregiver, and reported prominently elevated Disaffiliative Introject behaviors such as Wall-Off, Self-Neglect, and Self-Attack. This was in contrast to mothers that demonstrated higher well-being scores as measured by the MaWM. Mothers with higher ratings of well-being tended to copy patterns of behavior from a parent who exhibited more open, loving attachment. Case 6, for example (MaWM well-being score of 2.67) internalized her mother, a more positive model compared to her father.

Another hypothesis in reviewing the SASB data was that when able to copy healthy attachment patterns, women would do so with some specificity. In profiles that exhibited higher levels of well-being, attachment patterns were generally healthier. Further, cases that exhibited healthy attachment patterns copied a healthier figure (even when they had the opportunity to copy an unhealthy figure). Patterns of copying were quite precise, with some patterns being as closely correlated as $r > .9$.

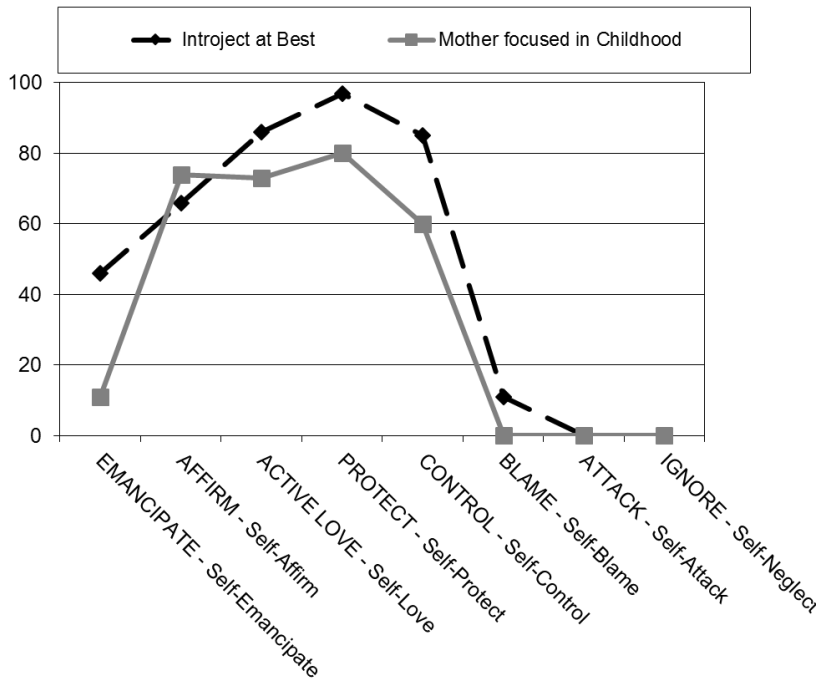
Because of the small sample, we evaluated every case that completed the Intrex in its entirety. As such, it should be noted that Amy, Lucy, Natalie, and Lauren were the only cases that were primiparous in nature. Matilda and Rachel completed the Intrex, but were later identified through their qualitative responses as having other children.

The following paragraphs review individual profiles starting with the highest levels of reported well-being after childbirth (cases Lucy and Natalie), followed by those with the lowest ratings of well-being (Amy, Rachel, Lauren, and Matilda). Within each case, there is an explanation of Intrex ratings and perceived relationship patterns present during childhood and adulthood. The graphs presented are not comprehensive but have been specifically chosen to help illustrate dominant findings regarding copy process.

Lucy:

Lucy reported a total well-being score after childbirth of 2.67, endorsing 12 total concerns. Her ACE score was a 2, which indicates relatively low levels of adversity in childhood. Overall, Lucy reported a stable well-being score and few concerns. Figures 4, 5, and 6 depict Lucy's pattern of self-treatment, treatment toward infant, and remembered relational parental patterns.

Figure 4. Lucy: Introject at Best and Mother’s Input (r = .94).



In Figure 4, Lucy demonstrates a nearly precise copy of her mother’s pattern of behavior. This results in high levels of treating herself as she was one treated by her mother in childhood. This is observed through high levels of control, protection, love, and affirmation, and low levels of criticism, attacking, or ignoring behaviors. Overall, this is a healthy profile, exhibiting positive behaviors from this participant.

Figure 5. Lucy: Introject at Worst and Father's Input ($r = .84$).

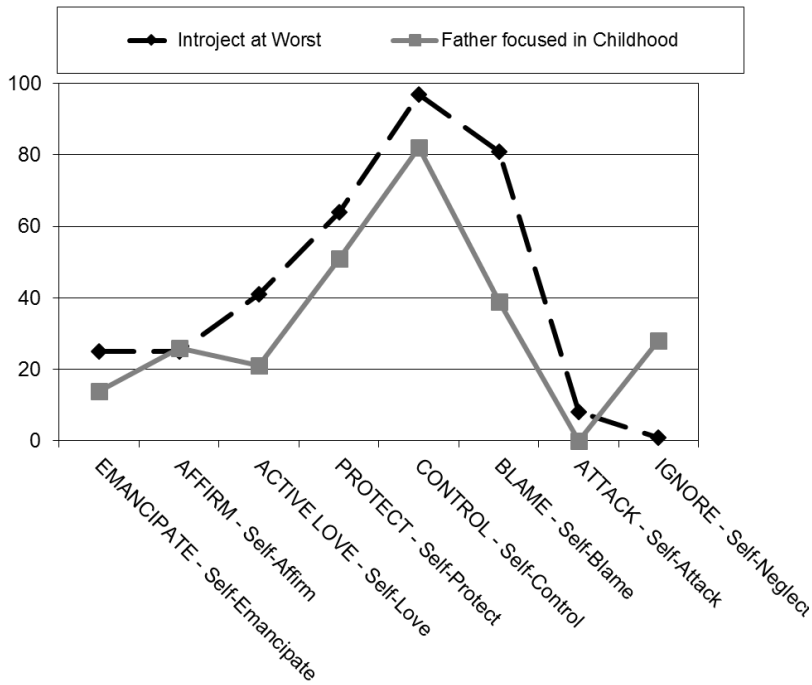
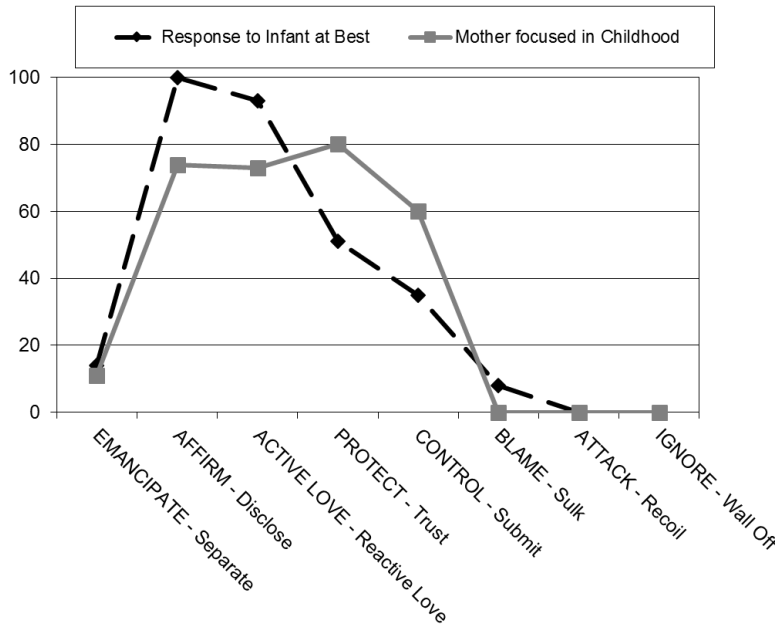


Figure 5 shows a contrasting relationship with father. Lucy's father exhibited high levels of control, and little warmth, which is mirrored by Lucy's self-treatment at worst ($r = .84$).

Figure 6. Lucy: Response to Infant at Best and Mother’s Input (r = .88).



At Best, Lucy’s infant is perceived similarly to how Lucy perceived mother focusing on her in childhood. Lucy reports high levels of friendly openness, delight, and trust with her infant (i.e., Disclose, Reactive Love, and Trust, respectively). This pattern suggests that the secure pattern experienced with mother has been transferred to the next generation between participant and infant, and is substantially present when the relationship is at its best. Overall, Lucy exhibited a healthy attachment pattern and now appears to recreate that relationship with her infant.

Figure 7. Lucy: Response to Infant at Worst and Father's Input ($r = .81$).

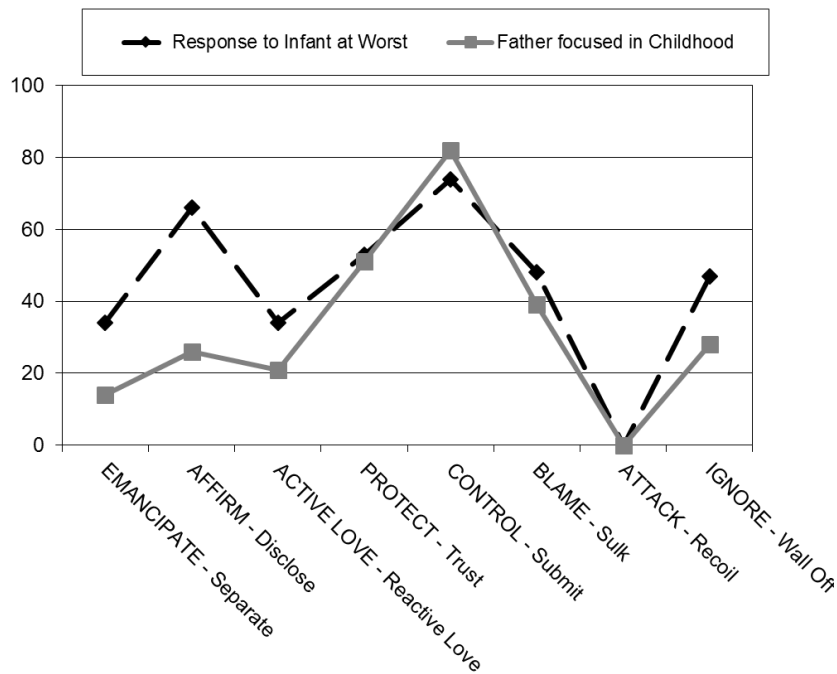


Figure 7 depicts that when their relationship is at its worst, Lucy's responds to her infant in ways that complement the childhood pattern with her father. Lucy exhibits high levels of submission, and walling-off, along with a degree of friendly openness (Disclose). This "At Worst" pattern suggests the possibility that the infant is perceived at times perceived to be interpersonally demanding, as was her father.

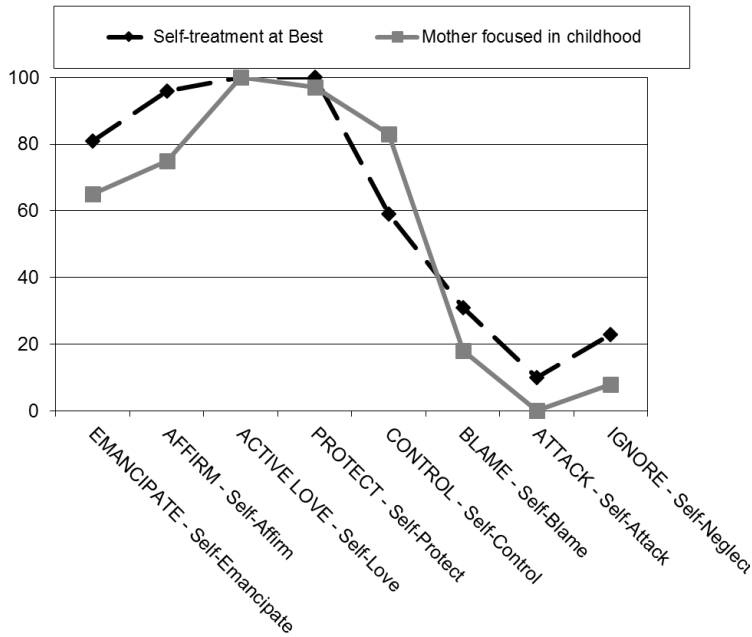
Two profiles from Lucy are illustrative of Hypothesis 1, meaning that Lucy demonstrated higher levels of well-being, and is observed as copying healthier attachment patterns when available. Lucy rated herself as having higher levels of well-being (MaWM total score of 2.67 after childbirth), for the most part copying the more secure relationship offered by her mother (as opposed to father) in childhood, and now, recreating those patterns with her own infant as a mother (see Figure 6). Lucy demonstrated stronger (.94) levels of copy process with her mother,

whose profile is consistent with secure attachment as demonstrated by high levels of active love, affirmation, and protection. Figure 4 shows that Lucy demonstrates a nearly precise copy of her mother's pattern of behavior. She appears to treat herself in loving ways that mirror how she was once treated by her mother in childhood. Finally, the total ACE score endorsed by Lucy was a 2. Anything above a 3 as rated on the short form is indicative of clinical levels of adversity that predictive in other research of difficulties in adult functioning. Lucy appears to have internalized a set of healthy, secure-base patterns from her mother which repeat when things are going well (especially when at Best). A separate set of patterns centering on control have also been internalized. These mirror her father's input and are typically seen when relationships are At Worst.

Natalie:

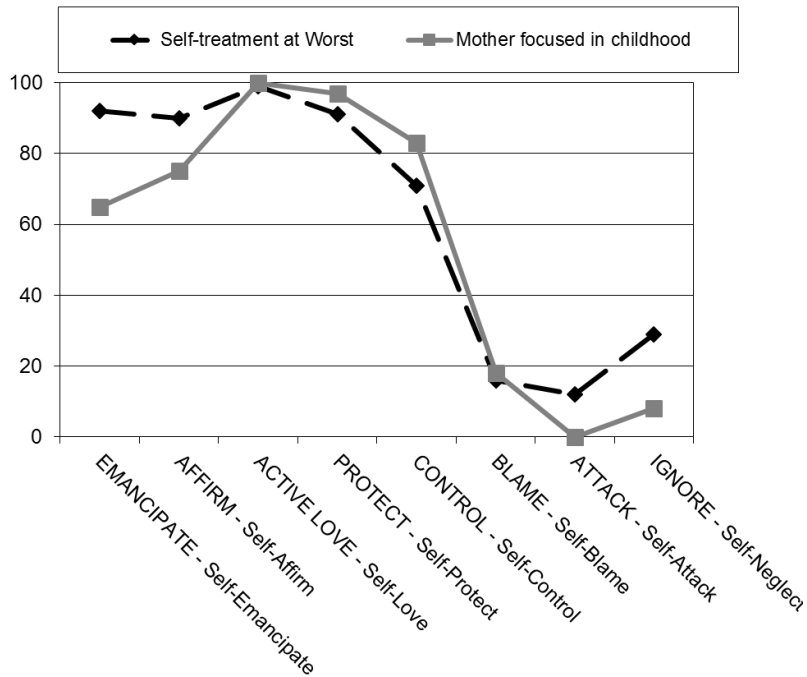
Natalie's well-being score after birth was 2.83 indicating high well-being after birth. She endorsed 2 total concerns on the MaWM, Eating and Sadness. She did endorse several adverse experiences as a child, receiving an ACE score of 4. Although a relatively high ACE score, she was able to copy healthy attachment patterns.

Figure 8. Natalie: Introject at Best and Mother (r =.94).



Natalie’s self-treatment At Best mirrors how her mother focused on her in childhood. She was showered with affirmation, love, and protection as a child and now re-creates that as an adult in her pattern of self-treatment (Introjection).

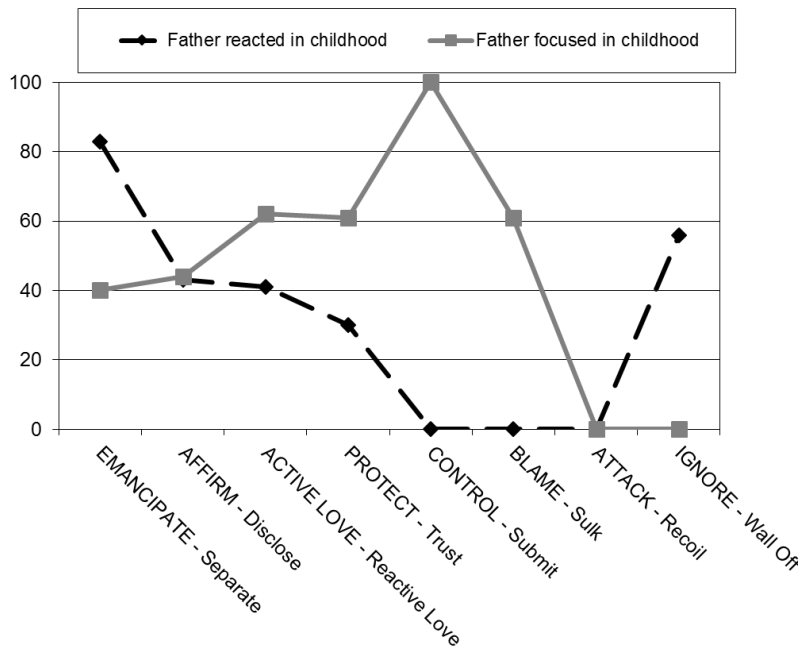
Figure 9. Natalie: Introject at Worst and Mother (r = .94).



Natalie demonstrates a particular strength in that she retains a friendly stance toward herself even when at her worst. She demonstrates high levels of love and affirmation toward herself even on her worst days.

Above, both graphs (Figures 8 and 9) are unusual in that there are few changes between herself at best and worst, they both display significantly healthy patterns. Even in an At Best or Worst state, Natalie reports that she engages in extremely low levels of negative behaviors. These profiles suggest that Natalie finds strong parallels between how her mother treated her in childhood and current style of self-treatment. Typically, participants that completed the Intrex identify that they treat themselves somewhat less supportively when in an At Worst state. Natalie reports that she internalized a healthy pattern of treatment regardless of her state of functioning, and regardless of state engages in high levels of self-care, love, and protection.

Figure 10. Natalie: Father’s Pattern of Behavior Does Not Appear to be Copied.



In contrast to her mother, Natalie remembered her father focusing on her with extremely high levels of control in childhood. His intransitive reactions to her primarily involved distance (Separate, Wall-Off). This pattern did not appear to be copied in Natalie’s other relationship ratings, including with self or infant.

Figure 11. Natalie: Identification with Mother ($r = .99$).

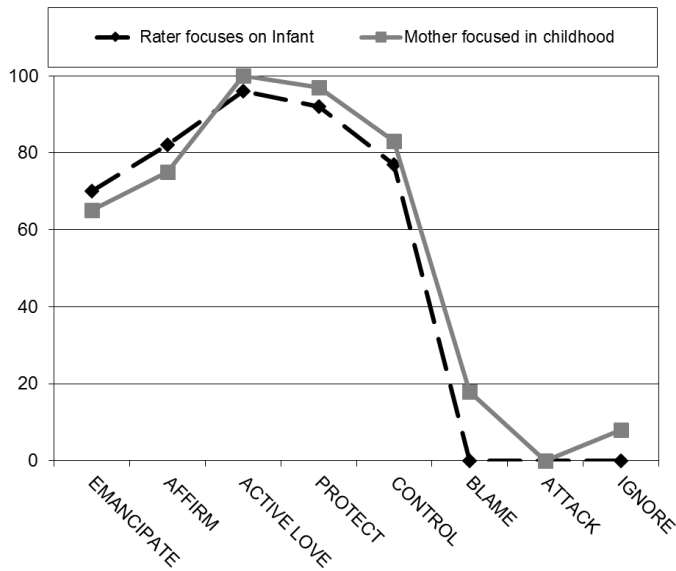


Figure 11 shows that Natalie demonstrates extremely high levels of identification with mother. Above, Natalie re-created much of the relationship she experienced with her mother with her own infant upon becoming a parent. Both scenarios demonstrate high levels of affirmation, love, and protection toward the infant, the secure-base pattern as defined in the SASB model.

Natalie identified greatly with her mother's secure base patterns, and did not appear to copy her father's relational patterns oriented around control and having little warmth. Natalie rated herself as having an overall well-being score of 2.83, indicating that she sees herself as a generally healthy person. She rated herself as having the highest possible well-being scores across all categories with the exception of Resources. Generally, Natalie likely sees herself as generally well adjusted and has had little trouble transitioning to motherhood. In both her best and worst states Natalie demonstrated high levels of affirmation, love, protection, and control

toward herself. Again, this is a representation of healthy/secure attachment. She was offered healthy patterns of attachment and copied these from an early age.

Participants Exhibiting Lower Well-Being Scores:

Amy:

Prior to childbirth, Amy’s total well-being score as measured by the MaWM was 2.5. After childbirth, she rated her total well-being as .67. This was markedly below the average well-being scores for mothers in this sample (1.45). Overall, Amy endorsed 7 total concerns on the MaWM and only reached an ACE score of 2, which is not indicative of overly adverse circumstances as a child.

Figure 12. Amy: Introject at Best and Father (r = .83)

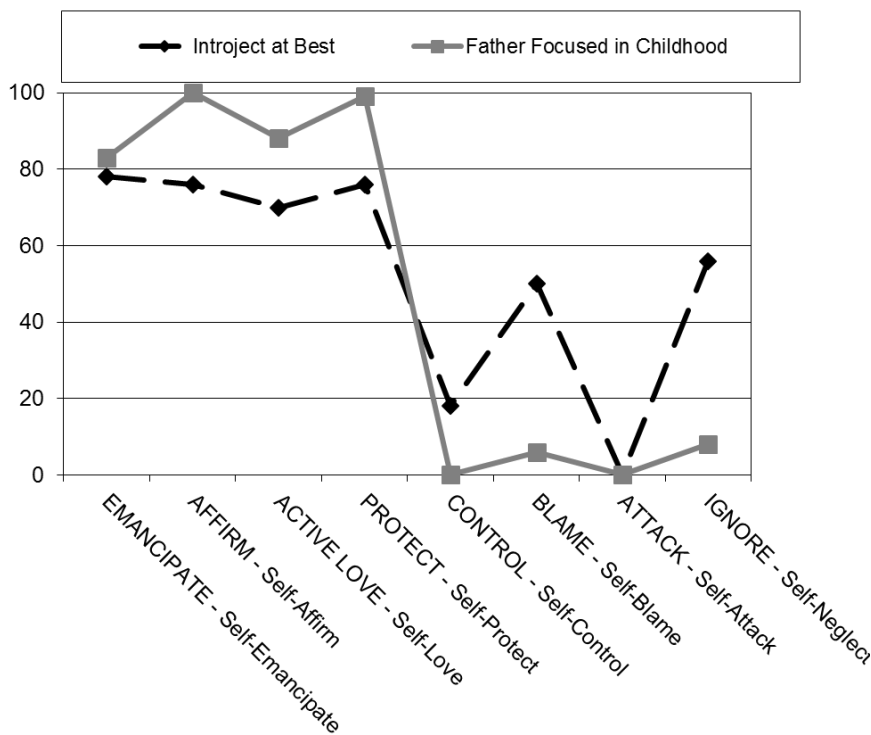


Figure 13. Amy: Introject at Best and Mother (r = .74).

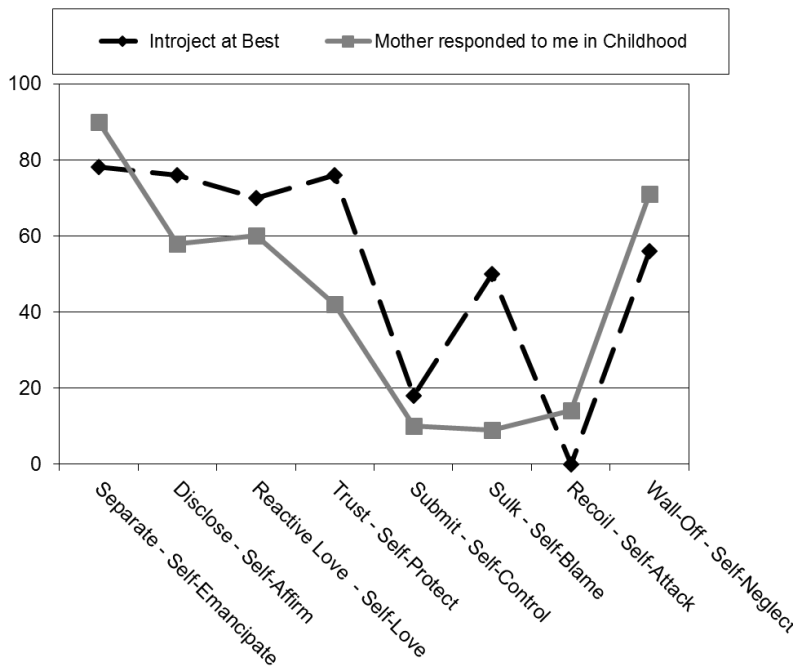
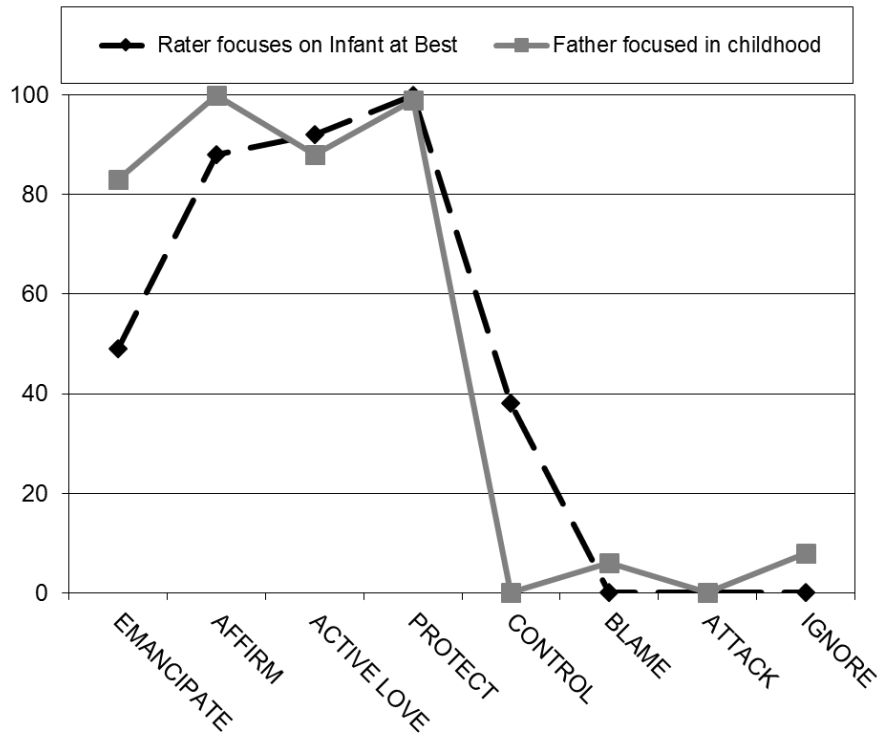


Figure 13 outlines the complicated relationship Amy has with herself and her parents. The same profile of self-treatment that correlated strongly with father’s very loving input also correlates strongly with experience of her mother as being very distant (Separate, Wall-Off, r = .74). Amy’s self-treatment at best thus appears to blend very different kinds of focus received from each parent.

Figure 14. Amy: Identification with Father when at Best ($r = .91$).



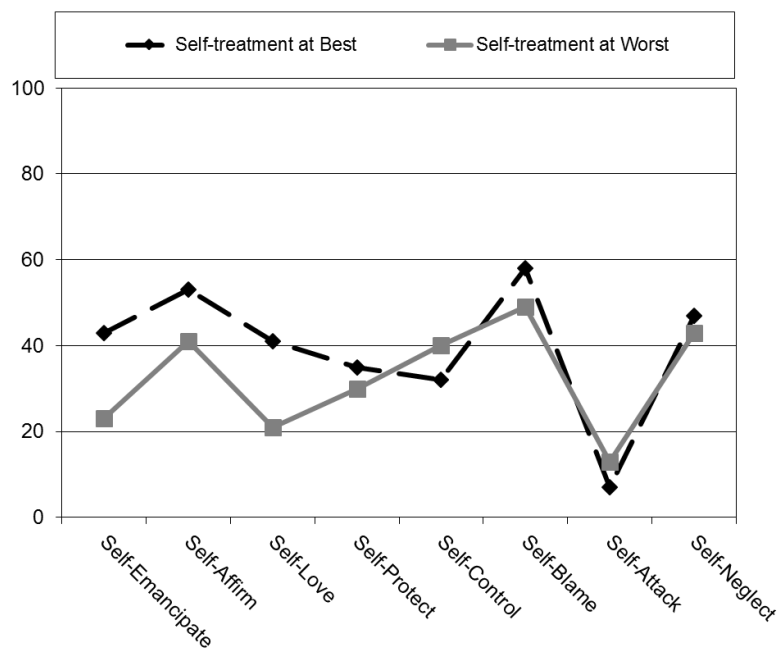
In Figure 14, Amy closely recreates the relationship she experienced with her father in childhood with her own infant. Amy's high levels of affirmation, active love, and protection are contrasted with markedly low levels of control, blame, attack, and ignore. The distance she experienced from her own mother is not in evidence as she focuses on her infant.

Because of Amy's high levels of self-neglect, low self-control, and high levels of self-blame, we can observe that she has a relatively complex relationship with self. Her father provided her with high levels of active love, affirmation, and protection. Amy was able to endorse high levels of this, and the overall profile is consistent with introjection of his treatment of her. The basis for Amy's level of self-blame is not explained by this analysis, but may help explain her lower well-being score on the MaWM.

Rachel:

Rachel reported that her overall well-being significantly deteriorated from before pregnancy to after childbirth. Prior to pregnancy, she rated her overall well-being as a score of 2.00. After childbirth, she rated her well-being as .17. Rachel endorsed 10 total concerns, spanning all categories with the exception of Resources. She did not endorse any adverse life events in her childhood (ACE score = 0). Rachel’s relationship with self prior to pregnancy was healthy (+3), but after childbirth, she noted a drastic decline, rating it at -1.

Figure 15. Rachel; Introject At Best and Worst (r = .75).



Rachel exhibits a self-concept At Best and Worst states that deviates from a pattern of healthy, secure attachment. At Best and at worst, self-blame is prominent, as is self-neglect. Warmth toward the self is quite low relative to the profile, as well as to available normative data for the Intrex.

Figure 16. Rachel: Identification with Mother (r = .98).

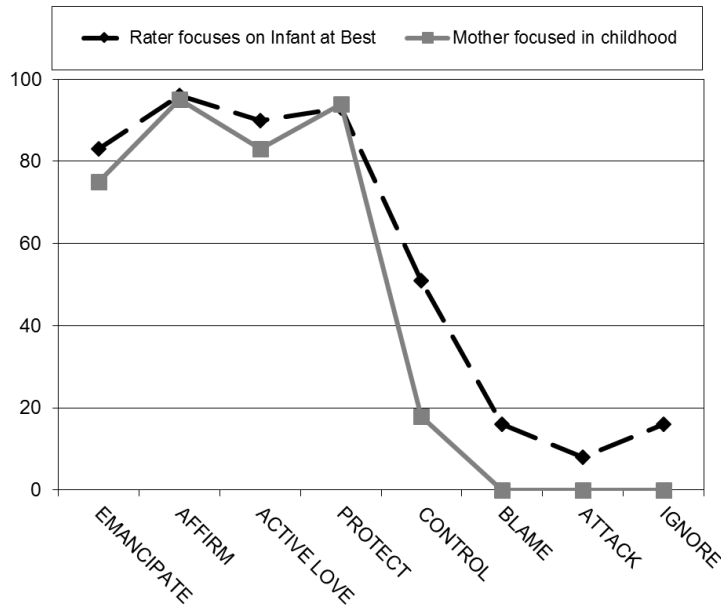
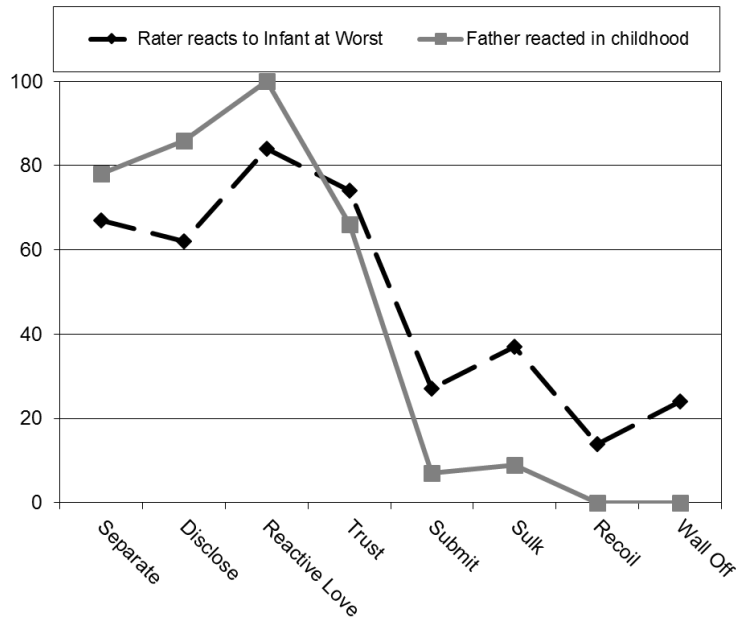


Figure 16 shows Rachel’s pattern with her infant, which has strong parallel the remembered pattern with her own mother (r = .98). The above graph outlines a relatively healthy attachment pattern, noting high levels of affiliative behaviors and low levels of blame, attack, and ignore. This suggests that Rachel has internalized and repeated the healthy relationship with her mother, with her infant, even though she does not offer herself the same treatment.

Figure 17. Rachel: Identification with Father ($r = .95$).



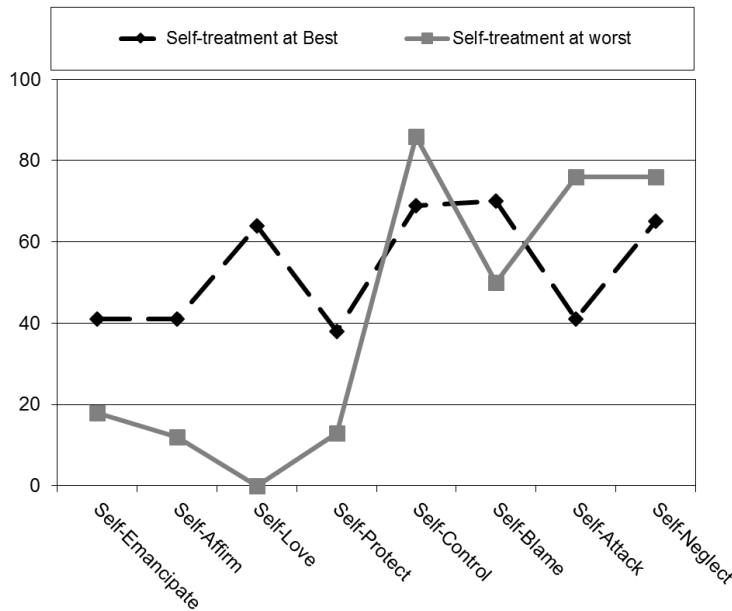
The above graph shows an example of how Identification with father can be interpreted as largely loving and affiliated, consistent with a secure attachment pattern. Father is remembered as enjoying and delighting in Rachel (i.e. Reactive Love is profile peak), just as she feels with her infant now, even when at worst.

Overall, Rachel’s Intrex self-concept involves little love, and a fair amount of hostility to the self and is thus consistent with her low MaWM rating. Her early relationships with parents, however, demonstrated levels of love and affiliation. There is not a copy-process based explanation observed for Rachel for her self-treatment, at least not for the relationships rated.

Lauren:

Lauren also reported a lower than average well-being before pregnancy and after childbirth. Prior to childbirth, she rated her well-being as .50 and after childbirth, -.17. She endorsed 13 total concerns across all domains of the MaWM. Her ACE score was 4, indicating a moderate level of adversity as a child. Figures 18-21 below show information regarding Lauren’s Intrex ratings.

Figure 18. Lauren: Self-Treatment at Best and Worst.



In the above figure are plots of Lauren’s self-treatment in her self-identified best and worst states. At Best, Figure 18 is evidence to suggest that Lauren exhibits low levels of emancipation, affirmation, and love. She does not appear to have demonstrated particularly high self-love in her At-Best state. High levels of non-affiliative categories such as Control, Blame and Neglect are higher than expected for At Best ratings. Lauren’s self-treatment At Worst indicates that she has extremely high self-control and moderate Self-Attack and Self-Neglect.

Figure 19. Lauren: Identification with Father (Focus on Other, $r = .85$).

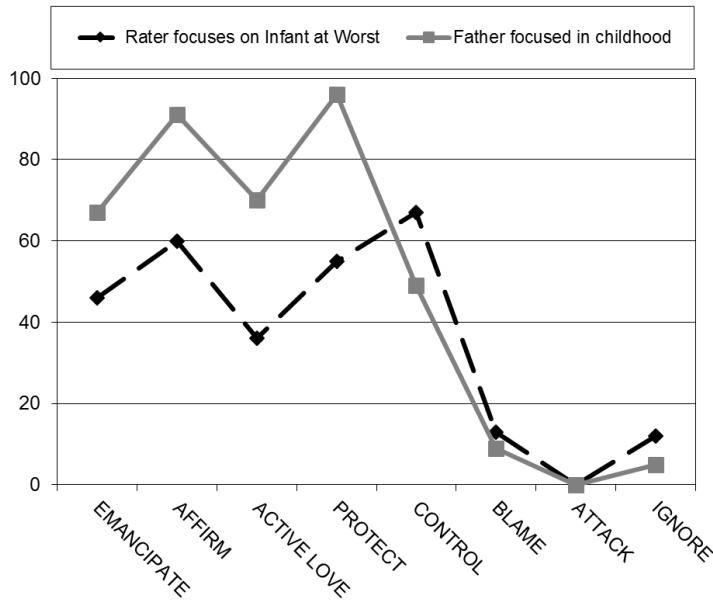
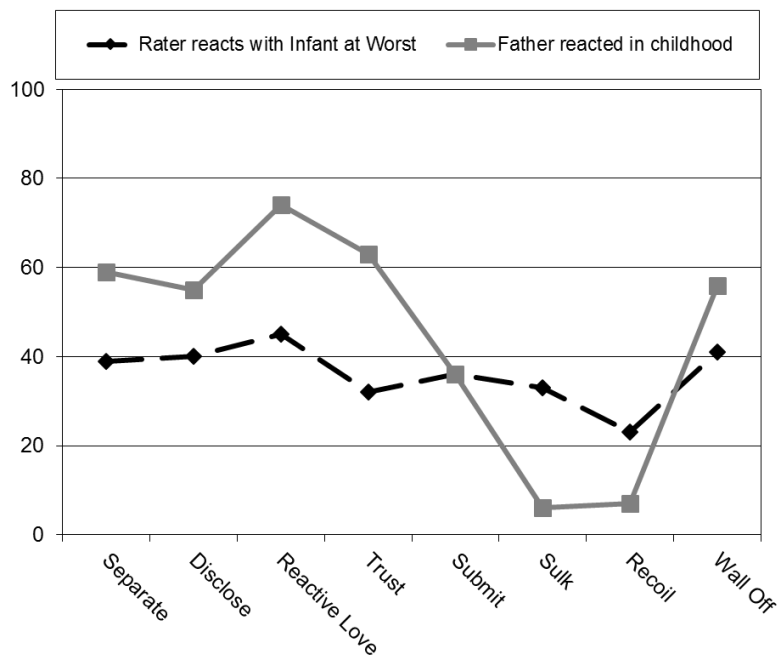
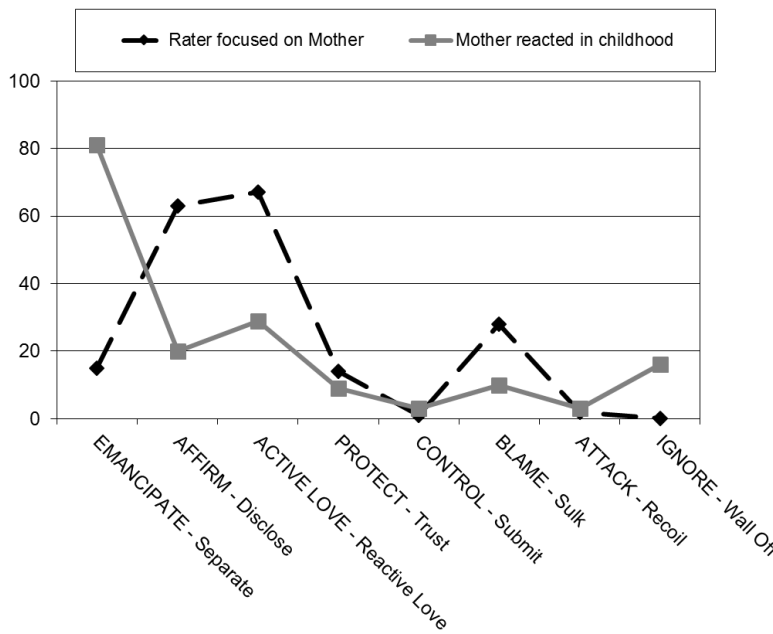


Figure 20. Lauren: Identification with Father (Focus on Self, $r = .76$).



Both Figure 19 and 20 provide evidence to suggest that Lauren’s identification with her father was generally healthy, but Active Love is reported below expected levels for transitive focus on Lauren in childhood, while father’s reaction in childhood contained significant degrees of distance (Wall-Off) and an overall lower profile than would be seen in the securely-attached prototype pattern. Lauren’s patterns with her infant, when at worst, are quite similar to the patterns with her father, but with important deviations even further away from the secure prototype. Like she experienced with her father, Lauren shows less active love than other forms of friendliness. Instead, control is the profile peak. Her intransitive states with her infant suggest roughly equal degrees of friendliness and hostility, with slight elevations on reactive love and wall-off that make an association with father’s pattern.

Figure 21. Lauren: Relationship Between Mother and Daughter Not Copied.



In Figure 21, Lauren noted that her mother was neither hostile nor friendly, but instead very separate, while she treated her mother with some affirmation and love. Lauren appears not

to have copied this pattern from her mother. Instead, she has copied a version of patterns from her father, who was experienced as the more loving of the two parents.

Low levels of control and high levels of distance are consistent with Lauren's qualitative responses on the MaWM that relate to self-concept. On the Relationship with Self domain, Lauren notes, "I feel like I am unable to make time for myself. Between work and a toddler, there is no me-time. My husband travels frequently for work and we have no family nearby. I know I need to prioritize myself, but I don't know how." Overall, Lauren has a problematic self-concept with relatively low levels of self-love and high levels of self-neglect. In her relationship with her infant, Lauren does not seem to offer expected levels of warmth or active love.

Matilda:

Matilda reported a low well-being score of .67 at both prior to pregnancy and after childbirth. Matilda reported an ACE score of 5, which is in the moderate range of adversity as a child. She endorsed 14 total concerns across all domains of the MaWM.

Figure 22. Matilda; Introject at Best and Mother's Input (r = .75)

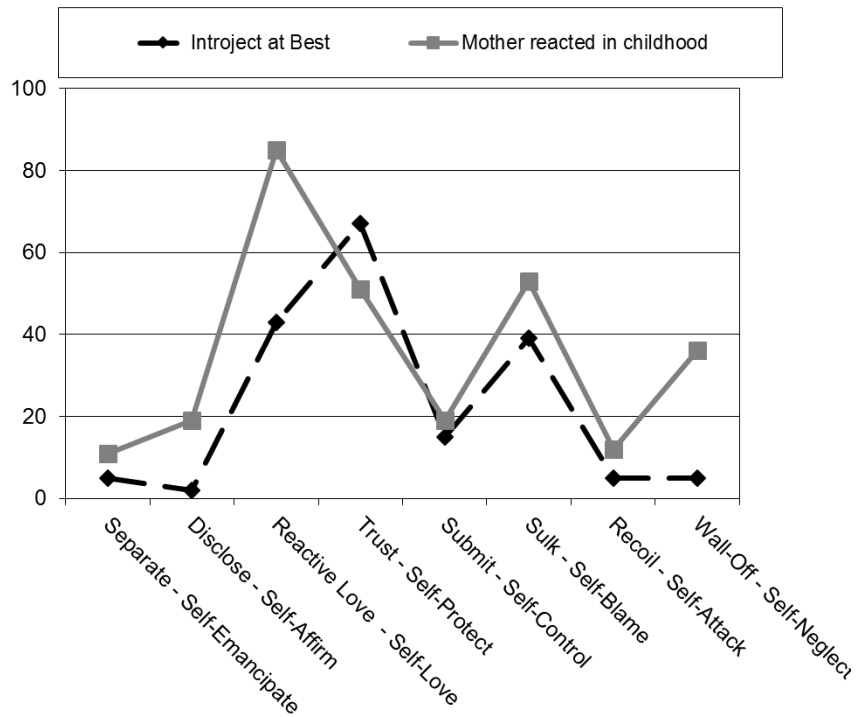


Figure 22 outlines the relationship that Matilda had with her mother. She has a similar method of self-treatment as how her mother treated her in childhood. Although there are high levels of love, Matilda also recalls high levels of sulking and walling off behavior.

Figure 23. Matilda; Introject at Worst and Father's Input (r = .91)

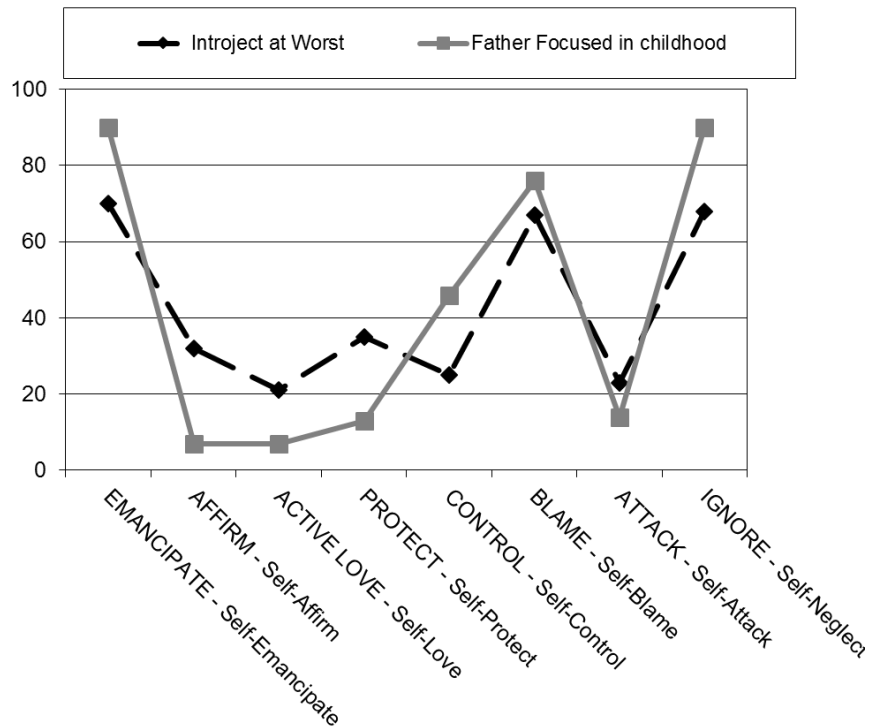
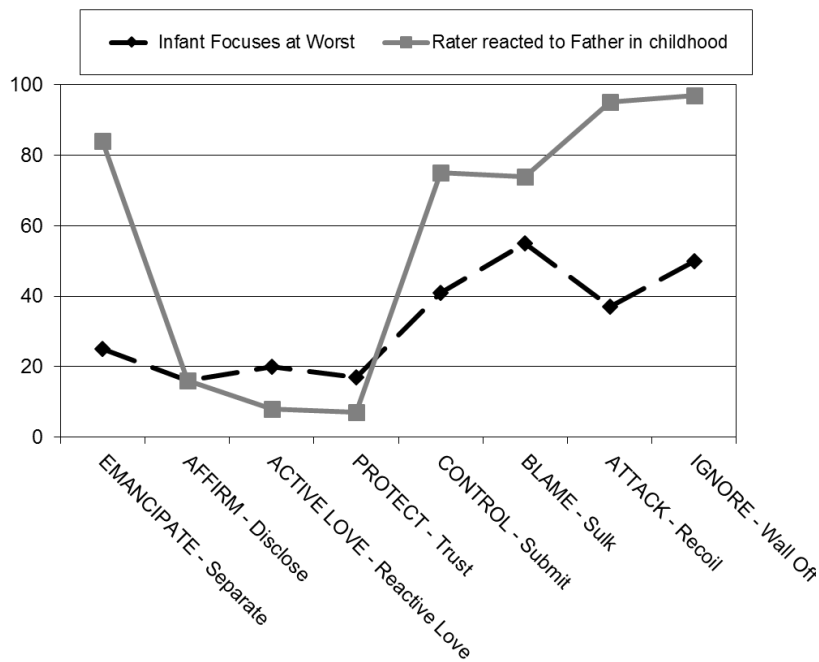


Figure 23 outlines Matilda's relationship with her father and her current self-treatment in an At-Worst state. Again, the graph indicates low levels of affiliative behaviors. Matilda's father treated her with high levels of hostile control (blame) and distance (emancipate and Ignore). Matilda appears to have internalized this way of treatment in that her own self-treatment when at worst is in close parallel to father's input.

Figure 24. Infant's focus At Worst and Matilda's Response to Father in Childhood ($r = .77$)



In Figure 24, Matilda reports that her infant, when in an At-Worst state is perceived as being generally more hostile than friendly, with peaks on blame and ignore. This perception is an interpersonal complement to how Matilda recalls reacting with her father in childhood. These parallel profiles suggest, by inference that Matilda's perception of her infant is shaped by her own childhood experience of her father.

Figure 25. Matilda: Recapitulation (Opposite): Matilda Focuses on Infant at Worst and Her Response to Father in Childhood ($r = -.96$).

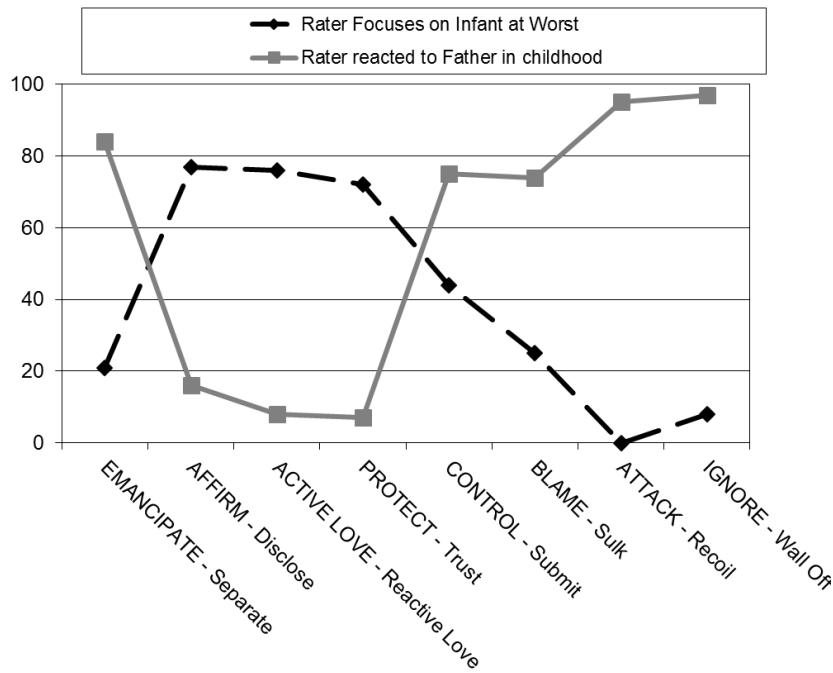


Figure 25 outlines that Matilda acts in an opposite manner than her father did, providing a secure-base of attachment to her infant, even At Worst.

When in an At Worst state, Matilda is hostile and self-neglecting toward the self. Both her father and mother, as reported by Matilda, fueled self-blame, self-neglect and a lack of self-affirmation. Matilda demonstrated a noticeably difficult relationship with herself, her parents, and her infant.

Intrex-Specific Case Summary:

As a whole, all of the 6 mothers that completed the Intrex demonstrated copy process. Each of the six participants exhibited internalized patterns of the Introject (Treating myself as I was once treated) by either their father or mother as remembered during childhood. 5 of the cases exhibited some pattern of Identification (Acting similarly to how their parent acted when they were children), with the majority identifying with their mother, but all cases choosing the healthier figure. Finally, three of the mothers exhibited patterns of Recapitulation (I act as if I'm still with him or her). Two of the mothers that completed the Intrex exhibited patterns of opposite copying patterns, where they experienced a less healthy relationship as a child and as parents did not repeat it with their own infant. All of the participants, regardless of history, appeared to have provided a relatively healthy base for their infant, even when they reported their infant acting in similar ways as a challenging relationship in the mother's early life.

The MaWM scores appeared to track well with the participants' self-concepts. Mothers that reported more difficult relationships with self At Best and At Worst reflected this in their total well-being score on the MaWM. Lauren, Rachel, Amy, and Matilda all reported their relationship with self as problematic and endorsing low levels of self-care, self-love, and higher levels of the non-affiliative behaviors. Each of these cases consistently reported lower well-being scores that seemed to parallel their Intrex reporting.

Mothers that reported lower well-being scores (Lauren, Rachel, Amy, Matilda) also described more complex relationships with their parents during childhood. This may suggest that early history does indeed influence adult functioning and the relationship with self, confirming previous studies.

The MaWM performed well at both the aggregate and individualized level of analysis suggesting that the measure is valid and informative on a clinical level. These results reflect similar work by Woehrle focusing on the relationship between mothers and toddlers, and also Cushing's parenting work based on children ages 6-11. It also offers information that aligns with an individualized assessment approach. In the future, the MaWM may be a useful tool to supplement a more comprehensive psychological assessment in the future for this population.

Chapter 5: Discussion

The goal of this study was to assess overall well-being in postpartum mothers utilizing specific domains that especially pertain to the maternal population. By virtue, new mothers represent the confluence of a number of different factors that impact functioning and care for the next generation. The hope in developing this study was to expand the knowledge base of what factors influence the early stages of motherhood and how to use that knowledge to best support women during the postpartum period. Participants were surveyed using three separate measures. The MaWM was grounded in integrative conceptual theories about well-being, and largely built off the Nested Model developed by Henriques, Asselin, and Klein (2014) to assess functional areas of living specific to new mothers. The SASB Intrex Questionnaire was created by Lorna Benjamin (2000) out of the long heritage of attachment research and modified to assess how early attachments impact adult functioning. The Intrex questionnaire was able to provide concurrent validity to the newly developed MaWM measure and also offer an intergenerational lens on how patterns from early childhood are transferred between new mothers and their infants with remarkable precision, at rates of $r = .7$ or higher.

The ACE questionnaire was an additional measure to assess maternal experiences during childhood that were thought to impact adult functioning. The ACE questionnaire is an established measure that has linked early childhood trauma to adult functioning across a number of scenarios including alcoholism, obesity, smoking, and partner satisfaction (Felitti et al., 1998/2001/2003/2008; Dong, Anda, Felitti, & Williamson, 2010). It was included in this study to further expand on factors experienced in early childhood and how they impact adult functioning, and more specifically, intergenerational patterns of behavior.

This project allowed for the implementation of a new measure to be researched and utilized alongside already verified measures. Beyond that, the MaWM provided the opportunity to assess well-being in a special population: new mothers. Prior to dissemination, it was stated the MaWM would be deemed successful if it was demonstrated to be easily completed and readily accessible to new mothers. Second, it was posited that self-report findings from the Intrex would also provide concurrent validity to the MaWM. Third, the MaWM was meant to be a tool that could be easily utilized by physicians, psychologists, and other practitioners in an integrative treatment setting.

Validation of the Maternal Well-Being Measure (MaWM)

Overall, the MaWM analyzed six domains that contribute to the overall picture of well-being in new mothers: Physical, Emotional, Relationship with Self, Relationship with Others, Resources, and Meaning of Parenthood. Evidence suggests that mothers experience a significant change between physical well-being as remembered prior to pregnancy and as measured after childbirth. Other areas of well-being suggested that a mother's functioning prior to pregnancy may not be entirely predictable for after childbirth. Of the women surveyed, the total well-being

score was an average of 1.69 as remembered by the mother prior to pregnancy. These scores were compared to after childbirth where mothers rated their wellbeing on the same scale. After birth, women had a similar total well-being score of 1.45, $t(20) = -1.25$ ns. Analysis of the MaWM evidenced internal consistency before pregnancy measured Cronbach's $\alpha = .68$. After childbirth, internal consistency increased to $\alpha = .83$. These results suggest that the domains measured by the MaWM are consistent and representative of the nature of well-being in new mothers. Overall, the MaWM evidenced a 100% response rate. This high rate of completion speaks to the accessibility for a population of individuals who endorse stressors from multiple domains.

Checkboxes from the MaWM reflected quantitative ratings and qualitative responses. The most frequently endorsed concerns across domains were: Sleep (86%; Physical domain), Time for Self (86%; Relationship with Self domain), Body Image (71%; Relationship with Self domain), Worry/Fear (67%; Emotional domain), and Concerns about Relationship with Partner (62%; Relationship with Others domain). This represents three of the six major domains represented in the holistic measure of total well-being as measured by the MaWM. Although Lack of Sleep and Time for Self was largely unsurprising to new mothers that are learning to juggle care for another in addition to themselves, Body Image was a surprising finding. This may speak to the increasing pressures mothers feel to re-establish their body shape after pregnancy. Further, Worry/Fear/Anxiety checkbox was endorsed more than any other category in the Emotional domain. This result evidenced the significant stress that mothers of infants feel in the first year, and pointed out the importance of assessing various aspects of emotional functioning in new mothers. An area of noted interest was that of Meaning of Parenthood. More than a third (38%) of respondents endorsed concerns relating to "How parenthood fits in with my life,

identity, and relationships.” Overall, the checkboxes provided a great deal of illustration to the struggles new mothers face during the first year of having a child. Further, qualitative responses expanded on how maternity can impact a woman’s sense of identity in both positive and negative ways.

Qualitative responses endorsed by mothers provided more detail into the individualized experience of motherhood and provided more context to a new mother’s quantitative rating across domains. Subjective reports spanned reports of required hospitalization due to mental instability to anecdotes of finally being able to give birth to a long awaited infant. In accord with reported rates of well-being and checkboxes, qualitative responses from each domain appeared to expand each participant’s narrative of motherhood. Each free text was diverse and typically applied to the checkboxes endorsed. Recurring themes from the qualitative responses indicated significant anxiety across a number of different platforms. Also, qualitative responses also suggest that mothers experience shifts in their identity from before pregnancy to after childbirth. Themes from the sample are shifts in how women see their bodies, anxiety around new functionality in their bodies, and another major theme was that of personal identity shift as a mother. Women reported anxiety about transitioning back to work, conflict with figuring out how to integrate motherhood into their identity, and how to find support in their local community in how to navigate past roles as a working female and present role as a mother.

The average picture of participant well-being in this study indicated that overall, maternal well-being scores decreased slightly across domains from before pregnancy to after childbirth, although not to a significant level in the majority of domains (or total well-being). The most prominent domain of identified shift was Physical well-being.

On the whole, results from the MaWM also evidenced correlations across domains, meaning that women with higher levels of physical well-being were more likely to demonstrate higher levels of Emotional well-being, Relationship with Self, and Relationship with Others. Significant correlations across these domains suggest that well-being is indeed comprised of subjective experiences of happiness, physical wellness, and systemic impacts as hypothesized by the Nested Model of Well-Being (Henriques, Kleinman & Asselin, 2014).

Women that reported lower levels of well-being below the mean for the sample endorsed concerns across several domains. Examples include, lack of sleep, irritability, and concerns with relationships.

Data from the MaWM evidenced more sub-scale inter-correlations after birth. Domains of Physical, Emotional, Relationship with Self, Relationship with Others, and Meaning of Parenthood were all positively and significantly correlated after childbirth. This evidences that well-being as a construct includes a new facet not otherwise included prior to childbirth. This correlation also argues that the structure of a woman's "known self" can actually change when they become a mother. The impact of Meaning of Parenthood argues that women should be assessed with this in mind and not solely using a measure that reviews emotional symptomology. For a more comprehensive view of the study in totality, please refer to Appendix C, where scatterplots are available for review.

Concurrent Validity Evidenced by Intrex

Results from the Intrex measure provided specific views into six subjects' early childhoods. Results from the Intrex measure found that self-treatment At Best was positively correlated with Physical and Emotional states ($r = .78; .70$) before pregnancy and At Best

measures were positively correlated with After Birth in the Physical and Relationship with Self domains ($r = .75; .79$) after birth. These results suggest that items on the Intrex At Best rating form directly correlate with the items measuring domains of well-being via the MaWM.

Benjamin's (2003) Developmental Loving and Learning theory posited that parenting is shaped by internal working models of interpersonal behavior learned in the context of early relationships with caregivers. This study replicated and extended Critchfield, Benjamin's (2008, 2010), and Woehrle's (2013) tests of Interpersonal Copy Process into the context of parent-child interactions with a small population of primiparous mothers. All six of the mothers analyzed at a more in-depth level appeared to copy patterns with their parents at a moderate to high level. In some cases, rates of copying were as high as .99 (Natalie), speaking to the precision with which mothers will copy attachment patterns learned early in life. Total well-being after childbirth shows significant correlation with a mother's lovingness to her child at best ($r = .73^*$), and represented that primiparous mothers that scored higher on overall well-being as measured by the MaWM direct more of their love toward their infant. Specifically, a mother who perceives her child as joyful, has a more positive view of their relationship ($r = .81$). Further, if a mother reports having a healthy relationship with herself, she delights to be around her baby ($r = .88$).

This suggests that women who identify higher levels of physical and emotional well-being rate themselves as being more loving toward their infant. These results posit that mothers that are able to identify vulnerable areas in well-being and engage in self-care are more likely to have a positive relationship with their baby during the first postpartum year. Additional correlations not directly noted in the results section also analyzed how many character mothers used in the qualitative free response section when describing their own experiences.

Mothers that used longer narratives was positively correlated with the perception of infants as being less demanding or controlling of their mother (At Best) and more delighted in mom's presence (At Best and Worst), which may be spurious because of the small sample size, however, may also be indicative of a mother's ability to process her thoughts and feelings more fluidly, and may ultimately impact the relationship with her infant.

An additional significant correlation $r = -.83$ was observed between the self-rated Meaning of Parenthood as measured by the MaWM, and the degree to which her infant is perceived as dependent on her (as opposed to separate from her). These results suggest that mothers that identify their infants as close and desiring more contact are consistent with the underlying theory of attachment. The effects are sufficiently large to be detectable in this study despite small sample size. Insufficient data was available to detect aggregate effects related to a mother's experience of being parented.

In regards to types of patterns copied, N =1 at-a-time copy process assessment procedures for each of the six Intrex cases unveiled specific histories for each of the participants. Early relationships of each of the six cases spanned traditional "secure" parent-child dyads and some unhealthy patterns. Results suggested that when participants were provided a healthy figure, they learned and copied relationships from a healthier attachment figure, confirming previous resiliency and attachment research. Although mothers experienced a variety of relationships with their parents early on, in total, all available mothers reported that they treat their infant with high levels of active love, affirmation, and security. This result was optimistic and enlightening for the scope of this project. The sample in this project revealed that during the first postpartum year, mothers on average are able to approach their infant with a secure base instead of re-creating previous unhealthy relationships. This confirmed Woehrle's 2013 finding in which she notes,

“When considering the full constellation of parenting behaviors, the present study revealed significantly higher rates of Identification and Recapitulation among non-abusive mothers than among abusive mothers, suggesting stronger copying occurs in lower risk family systems.”

Areas for Growth

Results from this study indicated a number of ways that research can be tailored differently to assess well-being in new mothers. Specifically, new mothers are short on time, and a clinical setting may be the best way to both educate and develop a narrative about the struggles relevant to early motherhood. The length of this survey may have been too long, and therefore, a different tactic in reaching mothers may be beneficial to future research. A more accessible platform for motivated new mothers to complete the MaWM could be a parenthood readiness class that follows women during pregnancy to after birth in order to process infant care and personal well-being. Use of the MaWM in a setting such as this would allow for aggregate data compilation and revisited utility of the measure.

In a similar vein, a larger sample size is necessary to further validate the Maternal Well-Being Measure (MaWM). Concurrent validity alongside the Intrex would be helpful, and compliance may be better achieved if provided in a clinical setting as part of a larger mission to provide longitudinal care for mothers before childbirth and afterward. A setting such as a maternal wellness group would be able to track well-being changes in real time rather than retrospective report. Further, it would allow for a larger conversation in regards to physical, emotional, relational, and identity-based changes that women experience. Two significant errors that could be repaired in a setting of this kind would be the ability to collect demographic information about the participants and also screen out multiparous mothers with more scrutiny.

Although results ultimately indicated that multiparous and primiparous mothers struggle with similar concerns, a more careful approach to this in the future would provide an enhanced scientific approach.

A final aspect that was built into this study but ultimately not utilized was the option to participate in a follow-up interview. Only two mothers indicated that they were interested, and of that, neither ultimately responded to repeated attempts at reaching out and scheduling an informing of results. In the past, similarly designed studies have incorporated an informing, for example “The Psychological Check-Up” by Anmuth and Henriques (2016). It was unforeseen that the informing portion would be so underutilized. As a result, incorporating a more mandatory aspect of this in the future could provide the ability for the clinician and patient to discuss relevant concerns more openly. Also, the follow-up interview would serve as a prime opportunity for the measure to be informally assessed and re-configured. The lack of an in-person interview is an element of this study that could have benefitted the measure developments, participants, and overall understanding of holistic well-being as reported by mothers. Future iterations of the MaWM should address this by increasing recruitment and the salience of the measure by incorporating it into a treatment process.

Clinical Utility

In the future, the use of the MaWM may be used in an interdisciplinary clinic where maternal health is evaluated. The quick nature of the survey, and the high response rate of participants indicates that it can be utilized quickly and efficiently. The MaWM may be especially useful in clinics or birthing centers that report holistic care objectives. Such clinics may be those that work in a multidisciplinary fashion, and include midwives, social workers,

physicians, and others that support the mission of complete care of mother and infant. The MaWM offers a non-pathological model of assessment for new mothers and provides a picture of strengths and challenges in each participant. Moving forward, the MaWM may also be especially useful to physician training programs that desire to have a deeper understanding of the contributory factors that challenge new mothers. Benefits of including a measure such as the MaWM are more comprehensive understanding of the challenges a mother faces during childbirth, the recovery and impact of more complicated procedures, and how to conceptualize a mother's well-being beyond physicality.

Implications and Future Directions

The Maternal Well-Being Measure (MaWM) was designed for the purpose of providing meaningful and useful information to mothers and treating providers during the postpartum period. With improved knowledge about themselves, and access to providers with an understanding about the components of well-being, it is believed that mothers will be better equipped to address their individual needs and foster their relationship with their infant more securely. Based on the results of this study, both check boxes and qualitative responses from the MaWM indicate that mothers experience specific challenges after the birth of their infant. As a result, this population appears to represent a valid population that may benefit from a specific well-being assessment.

Additional correlations were identified as being especially pertinent to the future of postpartum research were that Relationship with Self-predicted Meaning of Parenthood after birth ($r = .75$). This is further suggestive evidence that using a well-being model that incorporates an integrative view of the person would promote well-being in both the mother and infant. In

future research, it would be wise to incorporate a class that spans pregnancy to after childbirth to educate mothers about the importance of the levels of their well-being and how this can impact their infant. Because a mother's health is so imperative to the development of their baby, it seems that this may offer a platform for mothers to discuss their concerns to peers and professionals. Further, a clinical setting such as a class or group may provide room for a more qualitative response style for future research.

Finally, a major theme identified in this research was overall attachment between mother and infant. The single profile analysis of Intrex data provided a unique lens on the first postpartum year of parenthood. High rates of Copy Process with securely attached relationships that mothers experienced in early life were both optimistic and imperative in framing how a mother approaches her infant. Continuing to analyze early formations of the relationship between infant and mother may continue to be incredibly important. This study provided preliminary evidence to suggest that mothers will copy healthy relationships they experienced in their formative years and apply this to their parenting style with their infant. A longitudinal study that follows parenting strategy and applies Copy Process Theory to analyze any deviations could provide significant utility to the field of psychology and the branches of application such as: Head Start, early intervention services, and initiatives in developmental pediatrics.

Post Script

At countless weddings, baby showers, cocktail hours, and back porches, I was asked the topic of my dissertation. No matter the audience, there was always a strong reaction. Men talked about their wives and the experience of having a child, women talked about their relationship with their mothers, their children, and their grandchildren. Single, unmarried women and men talked about their childhood factors they attribute to their outlook on life. I had a discussion with my beloved 90-year-old grandmother who noted, “You never know. Parenting is something that you never know you’re doing right. Even now I am unsure about some decisions, but I love every minute.” Reviewing the results of this research on a rainy Saturday afternoon, even my fearless dissertation chair became teary.

Attachment-based research has so much emotional value, and it is something I will remember most about the project. For years, as a field, psychology has veered toward the sterilization of research. Yet, motherhood, attachment, love, and the desire to be loved is something each of us feels incredibly deeply. The depth at which I was able to dive into personal stories both included and not included in this document is something for which I will remain forever grateful. In the end, this project focused on one thing: love. It is with this that I thank you immensely and encourage you to go forth and love deeply. Love yourself, love others, and embrace all the ambiguity in between.

References

- Aassve, A., Goisi, A., & Sironi, M. (2012). Happiness and childbearing across Europe. *Social Indicators Research* 108, 65-86. Doi: 10.1007/s11205-011-9866
- Ackerman, S. J., Benjamin, L. S., Beutler, L. E., Gelso, C. J., Goldfried, M. R., Hill, C., & Rainer, J. (2001). Empirically supported therapy relationships: Conclusions and recommendations for the Division 29 Task Force. *Psychotherapy: Theory, Research, Practice, Training*, 38(4), 495.
- Ainsworth, M. D. S. (1969). Object relations, dependency, and attachment: A theoretical review of the infant-mother relationship. *Child development*, 969-1025.
- Ainsworth, M. S. (1979). Infant-mother attachment. *American psychologist*, 34(10), 932.
- Albers L. L. Health problems after childbirth. *Journal of Midwifery & Women's Health*. 2000;45:55-57
- Battle, C. L., Shea, M. T., Johnson, D. M., Zlotnick, C., Zanarini, M. C., Sanislow, C. A., & Morey, L. C. (2004). Childhood maltreatment associated with adult personality disorders: findings from the Collaborative Longitudinal Personality Disorders Study. *Journal of personality Disorders*, 18(2), 193.
- Belsky, J. (1984). The determinants of parenting: A process model. *Child Development*, 55, 83-96.
- Benasich, A. A., Brooks-Gunn, J., & Clewell, B. C. (1992). How do mothers benefit from early intervention programs?. *Journal of applied developmental psychology*, 13(3), 311-362.
- Antonucci, T. C., & Mikus, K. (1988). The power of parenthood: Personality and attitudinal changes during the transition to parenthood. *The transition to parenthood: Current theory and research*, 62-84.
- Benjamin, L. S. (1974). Structural analysis of social behavior. *Psychological review*, 81(5), 392.
- Benjamin, L. S. (1978). Use of Structural Analysis of Social Behavior (SASB) and Markov chains to study dyadic interactions. *Journal of Abnormal Psychology*, 88, 303-319.
- Benjamin, L. S. (2003). *Interpersonal Reconstructive Therapy: Promoting Change in Nonresponders*. New York: Guilford.
- Bernstein, D. P., Stein, J. A., Newcomb, M. D., Walker, E., Pogge, D., Ahluvalia, T., ... & Zule, W. (2003). Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child abuse & neglect*, 27(2), 169-190.

- Bowen, M. (1978). *Family Therapy in clinical practice*. New York: Jason Aronson.
- Bowlby, J. (1969). *Attachment and loss: Vol. 1. Attachment*. New York: Basic Books.
- Bowlby, J. (1973). *Attachment and Loss, Vol. 2: Separation, Anxiety, and Anger*. New York: Basic Books.
- Bowlby, J. (1979). *The making and breaking of affectional bonds*. New York: Brunner-Routledge.
- Bowlby, J. (1982). Attachment and loss: Retrospect and prospect. *American Journal of Orthopsychiatry*, 52(4), 664-678. doi:10.1111/j.1939-0025.1982.tb01456.x
- Bowlby, J. (1988). *A secure base: Clinical applications of attachment theory*. London: Routledge.
- Bowman, M. J., & Critchfield, K. L. (2016). *Maternal Well-Being Measure*. Unpublished measure. James Madison University
- Bretherton, I. (1990). Communication patterns, internal working models, and the intergenerational transmission of attachment relationships. *Infant mental health Journal*, 11(3), 237-252.
- Brown S, Lumley J. Physical health problems after childbirth and maternal depression at six to seven months postpartum. *Br J Obstetrics Gynecology*. 2000;107:1194–201.
- Buist, A., & Janson, H. (2001). Childhood sexual abuse, parenting and postpartum depression—a 3-year follow-up study. *Child Abuse & Neglect*, 25(7), 909-921.
- Burge, D., Hammen, C., Davila, J., Daley, S. E., PALEY, B., LINDBERG, N., & RUDOLPH, K. D. (1997). The relationship between attachment cognitions and psychological adjustment in late adolescent women. *Development and Psychopathology*, 9(01), 151-167.
- Camberis, A. L., McMahon, C. A., Gibson, F. L., & Boivin, J. (2015). Maternal Age, Psychological Maturity, Parenting Cognitions, and Mother–Infant Interaction. *Infancy*.
- Capaldi, D. M., Conger, R. D., Hops, H., & Thornberry, T. P. (2003). Introduction to special section on three-generation studies. *Journal of Abnormal Child Psychology*, 31(2), 123-125.
- Carr, J. L., & Van Deusen, K. M. (2002). The relationship between family of origin violence and dating violence in college men. *Journal of Interpersonal Violence*, 17, 630–646.
- Carter, A. S., Garrity-Rokous, F. E., Chazan-Cohen, R., Little, C., & Briggs-Gowan, M. J. (2001). Maternal depression and comorbidity: predicting early parenting, attachment security, and toddler social-emotional problems and competencies. *Journal of the American Academy of Child & Adolescent Psychiatry*, 40(1), 18-26.

- Caspi, A., Elder, G. H., & Bem, D. J. (1988). Moving away from the world: Life-course patterns of shy children. *Developmental psychology*, 24(6), 824.
- Cicchetti, D., Rogosch, F.A., Lynch, M. & Holt, K.D. (1993). Resilience in maltreated children: Processes leading to adaptive outcome. *Development and Psychopathology*, 5, 629-647 doi:10.1017/S0954579400006209.
- Cicchetti, D., & Rizley, R. (1981). Developmental perspectives on the etiology, intergenerational transmission, and sequelae of child maltreatment. *New Directions for Child and Adolescent Development*, 1981(11), 31-55.
- Claussen, A. H., & Crittenden, P. M. (1991). Physical and psychological maltreatment: Relations among types of maltreatment. *Child Abuse & Neglect*, 15(1), 5-18.
- Corkin, M. T., Peterson, E. R., Andrejic, N., Waldie, K. E., Reese, E., & Morton, S. M. B. (2017). Predictors of mothers' self-identified challenges in parenting infants: Insights from a large, nationally diverse cohort. *Journal of Child and Family Studies*. Advance online publication.
- Critchfield, K. L., & Benjamin, L. S. (2008). Internalized representations of early interpersonal experience and adult relationships: A test of copy process theory in clinical and non-clinical settings. *Psychiatry*, 71(1), 71-92.
- Critchfield, K. L., & Benjamin, L. S. (2010). Assessment of repeated relational patterns for individual cases using the SASB-Based Intrex Questionnaire. *Journal of Personality Assessment*, 92(6), 480-489. doi:10.1080/00223891.2010.513286
- Critchfield, K. L., Benjamin, L. S., & Levenick, K. (2015). Reliability, sensitivity, and specificity of case formulations for comorbid profiles in interpersonal reconstructive therapy: Addressing mechanisms of psychopathology. *Journal of personality disorders*, 29(4), 547-573.
- Crowell, J. A., & Feldman, S. S. (1988). Mothers' internal models of relationships and children's behavioral and developmental status: A study of mother-child interaction. *Child development*, 1273-1285.
- Currie, J., & Widom, C. S. (2010). Long-term consequences of child abuse and neglect on adult economic well-being. *Child maltreatment*, 15(2), 111-120.
- Curtis, G. C. (1963). Violence breeds violence-perhaps?. *The American journal of psychiatry*, 120, 386-387.

- Cushing, G. (2003). Interpersonal origins of parenting among addicted and nonaddicted mothers. *Dissertation Abstracts International: Section B: The Sciences & Engineering*, 64(3), 2003, 1485B.
- Cutrona, C. E., Cole, V., Colangelo, N., Assouline, S. G., & Russell, D. W. (1994). Perceived parental social support and academic achievement: An attachment theory perspective. *Journal of personality and social psychology*, 66(2), 369.
- Declercq E. R, Sakala C, Corry M. P, Applebaum S, Risher P. 2002. *Listening to mothers: Report of the first national U.S. survey of women's childbearing experiences*. New York: Maternity Center Association
- Dell Fave, A. & Massimini, F. (2004). Parenthood and the quality of experience in daily life: a longitudinal study. *Social Indicators Research*, 67, 75-106. Doi: 10.1023/B:SOCI.00000077335
- Denckla, C. A., Mancini, A. D., Consedine, N. S., Milanovic, S. M., Basu, A., Seedat, S. Koenen, K. C. (2017). Distinguishing postpartum and antepartum depressive trajectories in a large population-based cohort: The impact of exposure to adversity and offspring gender. *Psychological Medicine*. Advance online publication.
- Department of Reproductive Health and Research, World Health Organization. Postpartum care of the mother and newborn: a practical guide. 1998. Accessed online July 29, 2017, at: http://www.who.int/reproductive-health/publications/msm_98_3/.
- Dong, M., Anda, R. F., Felitti, V. J., Williamson, D. F., Dube, S. R., Brown, D. W., & Giles, W. H. (2005). Childhood residential mobility and multiple health risks during adolescence and adulthood: the hidden role of adverse childhood experiences. *Archives of pediatrics & adolescent medicine*, 159(12), 1104-1110.
- Dube, S. R., Felitti, V. J., Dong, M., Chapman, D. P., Giles, W. H., & Anda, R. F. (2003). Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: The Adverse Childhood Experiences Study. *Pediatrics*, 111, 564-572. doi:10.1542/peds.111.3.564
- DuMont, K. A., Widom, C. S., & Czaja, S. J. (2007). Predictors of resilience in abused and neglected children grown-up: The role of individual and neighborhood characteristics. *Child abuse & neglect*, 31(3), 255-274.
- Fonagy, P., Steele, H., & Steele, M. (1991). Maternal representations of attachment during pregnancy predict the organization of infant-mother attachment at one year of age. *Child development*, 62(5), 891-905.

- Egeland, B., Jacobvitz, D., & Sroufe, L. A. (1988). Breaking the cycle of abuse. *Child development*, 1080-1088
- Evenson, R. J., & Simon, R. W. (2005). Clarifying the relationship between parenthood and depression. *Journal of Health and Social Behavior* 46, 341-358.
- Farber, EA, Egeland, B. The invulnerable child. Guilford Press, New York (1987). PP. 253-268.
- Freud, S. (1921). *A general introduction to psychoanalysis*. Boni and Liveright.
- Gay, C., Lee, K., & Lee, S. (2004). Sleep patterns and fatigue in new mothers and fathers. *Biological Research for Nursing* 5, 311-318.
- Goodman, S. H., & Gotlib, I. H. (1999). Risk for psychopathology in the children of depressed mothers: a developmental model for understanding mechanisms of transmission. *Psychological review*, 106(3), 458.
- Grace, S. L., Evindar, A., & Stewart, D. E. (2003). The effect of postpartum depression on child cognitive development and behavior: a review and critical analysis of the literature. *Archives of Women's Mental Health*, 6(4), 263-274.
- Heim, C., & Nemeroff, C. B. (2001). The role of childhood trauma in the neurobiology of mood and anxiety disorders: preclinical and clinical studies. *Biological psychiatry*, 49(12), 1023-1039.
- Henriques, G. (2013). Evolving from methodological to conceptual unification. *Review of General Psychology*, 17(2), 168.
- Henriques, G.R., Kleinman, K. & Asselin, C. (2014). The Nested Model of Well-Being: A unified approach. *Review of General Psychology*, 18(1), 7-18.
- Henriques, G.R. & Stout, J. (2012). A unified approach to conceptualizing people in psychotherapy. *Journal of Unified Psychotherapy and Clinical Science*, 1(1), 37- 60.
- Hepper, P. G., Scott, D., & Shahidullah, S. (1993). Newborn and fetal response to maternal voice. *Journal of Reproductive and Infant Psychology*, 11(3), 147-153.
- Heyman, R. E., & Slep, A. M. S. (2002). Do child abuse and interparental violence lead to adulthood family violence? *Journal of Marriage & Family*, 64, 864–870.
- Huesmann, L. R., Eron, L. D., Lefkowitz, M. M., & Walder, L. O. (1984). Stability of aggression over time and generations. *Developmental psychology*, 20(6), 1120.
- Ion, A., Sunderji, N., Jansz, G., & Ghavam-Rassoul, A. (2017). Understanding integrated mental health care in “real-world” primary care settings: What matters to health care providers

- and clients for evaluation and improvement? *Families, Systems, & Health*, 35(3), 271-282. <http://dx.doi.org.evms.idm.oclc.org/10.1037/fsh0000294>
- Kahn R. S, Zuckerman B, Bauchner H, Homer C. J, Wise P. H. Women's health after pregnancy and child outcomes at age 3 years: A prospective cohort study. *American Journal of Public Health*. 2002;92:1312–1318.
- Kaufman, J., & Zigler, E. F. (1989). The intergenerational transmission of child abuse. Cicchetti & V. Carlson (Eds.) *Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect* (pp. 129-150). New York: Cambridge University Press. doi:10.1017/CBO9780511665707.006
- Kendall-Tackett, K. A. (2007). Violence against women and the perinatal period the impact of lifetime violence and abuse on pregnancy, postpartum, and breastfeeding. *Trauma, Violence, & Abuse*, 8(3), 344-353.
- Kerber K.J., de Graft-Johnson J.E., Bhutta Z.A., Okong P., Starrs A., Lawn J.E.. Continuum of care for maternal, newborn, and child health: from slogan to service delivery. *Lancet*. **370**, (9595): 2007; 1358–1369
- Keyes, C. L. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of health and social behavior*, 207-222.
- Larsen RJ, Eid M. Ed Diener and The Science of Subjective Well-Being. In: RJ Larsen and M Eid, (Eds.) *The Science of Subjective Well-Being*. New York: Guildford Press, 2008:1–12.
- Lewis, J., & Christopher, J. (1989). Childhood trauma in borderline personality disorder. *American Journal Psychiatry*, 1, 46.
- Lopez, F. G., & Brennan, K. A. (2000). Dynamic processes underlying adult attachment organization: Toward an attachment theoretical perspective on the healthy and effective self. *Journal of Counseling Psychology*, 47(3), 283–300.
- McElwain, N. L., & Booth-LaForce, C. (2006). Maternal sensitivity to infant distress and nondistress as predictors of infant-mother attachment security. *Journal of Family Psychology*, 20(2), 247.
- Medscape Physician Compensation Report. April 2016. Accessed on July 14, 2017 at: http://www.medscape.com/features/slideshow/compensation/2016/public/overview?src=wnl_physrep_160401_mscpedit&uac=232148CZ&impID=1045700&faf=1#page=33

- Mitchell, C., Notterman, D., Brooks-Gunn, J., Hobcraft, J., Garfinkel, I., Jaeger, K., ... & McLanahan, S. (2011). Role of mother's genes and environment in postpartum depression. *Proceedings of the National Academy of Sciences*, 108(20), 8189-8193.
- Moeller, T. P., Bachmann, G. A., & Moeller, J. R. (1993). The combined effects of physical, sexual, and emotional abuse during childhood: Long-term health consequences for women. *Child abuse & neglect*, 17(5), 623-640.
- Molnar, B. E., Buka, S. L., & Kessler, R. C. (2001). Child sexual abuse and subsequent psychopathology: results from the National Comorbidity Survey. *American journal of public health*, 91(5), 753.
- Mulsow, M., Caldera, Y. M., Pursley, M., Reifman, A., & Huston, A. C. (2002). Multilevel factors influencing maternal stress during the first three years. *Journal of Marriage and Family*, 64, 944-956. <https://doi-org.evms.idm.oclc.org/10.1111/j.1741-3737.2002.00944.x>.
- Mullen, P., Walton, V., Romans-Clarkson, S., & Herbison, G. P. (1988). Impact of sexual and physical abuse on women's mental health. *The Lancet*, 331(8590), 841-845.
- Murray, L. (1992). The impact of postnatal depression on infant development. *Journal of Child Psychology and Psychiatry*, 33(3), 543-561.
- Napier, A. (1988). *The fragile bond: In search of an equal, intimate, and enduring marriage*. New York: Harper Perennial.
- National Child Abuse and Neglect Data System. (2010). *Child maltreatment 2009*. Washington, DC: U.S. Department of Health and Human Services
- Nelson, S.K., Kushlev, K., English, T., Dunn, E.W., & Lyubomirsky, S. (2013). In defense of parenthood: Children are associated with more joy than misery. *Psychological Science*, 24, 3-10. Doi: 10.1177/095679612447798
- Nelson, K., Kushlev, K., Lyubomirsky, S., (2014). The pains and pleasures of parenting: When, Why, and how is parenthood associated with more or less well-being? *Psychological Bulletin*, (33) 211-227. Doi: 10.103776/a003544
- Pears, K. C., & Capaldi, D. M. (2001). Intergenerational transmission of abuse: a two-generational prospective study of an at-risk sample. *Child abuse & neglect*, 25(11), 1439-1461.
- Pollak, R. A. (2004). An intergenerational model of domestic violence. *Journal of Population Economics*, 17(2), 311-329.
- OBGYN "Toolkit". Association of Family Medicine. 2014; Accessed July 14, 2017: <http://mail.ny.acog.org/website/DepressionToolKit.pdf>

- Office of Public Insurance Counsel and Center for Health Statistics. 2004. *Guide to Texas HMO quality: 2004*. Retrieved June 11, 2005, from http://www.opic.state.tx.us/docs/298_guidetohmoquality2004.pdf.
- Qouta, S., Punamäki, R. L., Montgomery, E., & El Sarraj, E. (2007). Predictors of psychological distress and positive resources among Palestinian adolescents: Trauma, child, and mothering characteristics. *Child abuse & neglect, 31*(7), 699-717.
- Roberts, A. R. (1987). Psychosocial characteristics of batterers: A study of 234 men charged with domestic violence offenses. *Journal of Family Violence, 2*(1), 81-93.
- Rutter, M. (1985). Resilience in the face of adversity. Protective factors and resistance to psychiatric disorder. *The British Journal of Psychiatry, 147*(6), 598-611.
- Rutter, M., & Maughan, B. (1997). Psychosocial adversities in childhood and adult psychopathology. *Journal of Personality Disorders, 11*, 4-18.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57*(6), 1069-1081.
- Sabo, A. N. (1997). Etiological significance of associations between childhood trauma and borderline personality disorder: Conceptual and clinical implications. *Journal of personality Disorders, 11*(1), 50.
- Sabuncuoglu, O., & Basgul, A. (2016). Pregnancy health problems and low birth weight associated with maternal insecure attachment style. *Journal of health psychology, 21*(6), 934-943.
- Seehusen, D. A., Baldwin, L. M., Runkle, G. P., & Clark, G. (2005). Are family physicians appropriately screening for postpartum depression?. *The Journal of the American Board of Family Practice, 18*(2), 104-112.
- Shonkoff, J. P., & Phillips, D. A. (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, DC, US: National Academy Press.
- Singer, L. T., Salvator, A., Guo, S., Collin, M., Lilien, L., & Baley, J. (1999). Maternal psychological distress and parenting stress after the birth of a very low-birth-weight infant. *Jama, 281*(9), 799-805.
- Skowron, E. A., & Dendy, A. K. (2004). Differentiation of self and attachment in adulthood: Relational correlates of effortful control. *Contemporary Family Therapy, 26*(3), 337-357.
- Skowron, E. A., & Platt, L. F. (2005). Differentiation of self and child abuse potential in young adulthood. *The Family Journal, 13*(3), 281-290.

- Skowron, E., & Reinemann, D. H. (2005). Effectiveness of Psychological Interventions for Child Maltreatment: A Meta-Analysis. *Psychotherapy: Theory, research, practice, training*, 42(1), 52.
- Skowron, E. A., Stanley, K. L., & Shapiro, M. D. (2009). A longitudinal perspective on differentiation of self, interpersonal and psychological well-being in young adulthood. *Contemporary Family Therapy*, 31(1), 3-18.
- Skowron, E. A., & Woehrle, P., (2012). Child maltreatment. In Fouad, N. and Carter, J. (Eds.), *Handbook of Counseling Psychology*. Washington, D.C.: American Psychological Association.
- Smith, W. H. (2001). Child abuse in family emotional process. *Family Systems*, 5(2), 101-126.
- Spinetta, J. J., & Rigler, D. (1972). The child-abusing parent: A psychological review. *Psychological bulletin*, 77(4), 296.
- Spaccarelli, S., & Kim, S. (1995). Resilience criteria and factors associated with resilience in sexually abused girls. *Child abuse & neglect*, 19(9), 1171-1182.
- Springer, K. W., Sheridan, J., Kuo, D., & Carnes, M. (2007). Long-term physical and mental health consequences of childhood physical abuse: Results from a large population-based sample of men and women. *Child abuse & neglect*, 31(5), 517-530.
- Stallings, J., Fleming, A. S., Corter, C., Worthman, C., & Steiner, M. (2001). The effects of infant cries and odors on sympathy, cortisol, and autonomic responses in new mothers and nonpostpartum women. *Parenting*, 1(1-2), 71-100.
- Stams, G. J. J., Juffer, F., & van IJzendoorn, M. H. (2002). Maternal sensitivity, infant attachment, and temperament in early childhood predict adjustment in middle childhood: the case of adopted children and their biologically unrelated parents. *Developmental psychology*, 38(5), 806.
- Teti, D. M., Gelfand, D. M., Messinger, D. S., & Isabella, R. (1995). Maternal depression and the quality of early attachment: an examination of infants, preschoolers, and their mothers. *Developmental psychology*, 31(3), 364.
- United States Department of Health and Human Services . Child maltreatment 2004. Administration for Children and Families; Washington, DC: 2006.
- United States Department of Health and Human Services. National Incidence of Child Abuse and Neglect (NIS-4). 2010. Washington, DC: 2010.

- van IJzendoorn, M. H. (1992). Intergenerational transmission of parenting: A review of studies in nonclinical populations. *Developmental Review, 12*, 76–99.
- Walker, E., Gelfand, A., Katon, W.J., Koss, M., Von Korff, D., Bernstein, J. Adult health status of women with histories of childhood abuse and neglect. *American Journal of Medicine, 107*(1999), pp. 332-339
- Wark, M. J., Kruczek, T., & Boley, A. (2003). Emotional neglect and family structure: impact on student functioning. *Child abuse & neglect, 27*(9), 1033-1043.
- Webb, D. A., Bloch, J. R., Coyne, J. C., Chung, E. K., Bennett, I. M., & Culhane, J. F. (2008). Postpartum physical symptoms in new mothers: Their relationship to functional limitations and emotional well-being. *Birth, 35*(3), 179-187.
- Whitbeck, L. B., Hoyt, D. R., Simons, R. L., Conger, R. D., Elder Jr, G. H., Lorenz, F. O., & Huck, S. (1992). Intergenerational continuity of parental rejection and depressed affect. *Journal of personality and social psychology, 63*(6), 1036.
- Wilcoxon, S. A., & Hovestadt, A. J. (1985). Perceived similarity in family of origin experiences and dyadic adjustment: A comparison across years of marriage. *Family Therapy, 12*, 165–173.
- Williamson, D. S. (1982). Personal authority in family experience via termination of the intergenerational hierarchical boundary: III. Personal authority defined, and the power of play in the change process. *Journal of Marital and Family Therapy, 8*, 309–323.
- Woehrle, P. (2013). Multigenerational patterns of parenting at risk: a test of copy process theory (Unpublished dissertation).
- Wonderlich, S., Klein, M. H., & Council, J. R. (1996). Relationship of social perceptions and self-concept in bulimia nervosa. *Journal of Consulting & Clinical Psychology, 64*, 1231–1237.
- Zeff, K. N., Lewis, S. J., & Hirsch, K. A. (2007). Military family adaptation to United Nations operations in Somalia. *Military Medicine, 162*, 384–387.

Appendix A

Recruitment Flyer



Look familiar?

Research help wanted in assessing new mothers' current well-being and relationship history.

Participants access surveys online to assess current functioning after birth of a child, relationships with parents, as well as your relationship with your infant. Personal information about history may be provided. Surveys are anonymous, and should take approximately 45 minutes to fill out. Results from this study are intended to inform treatment and supports for mothers during the first year after giving birth. Motherhood is tough, and support should be provided.

So yeah, this is about you, for once. And you can stay in yoga pants.

Participants are required to be at least 18 years or older, and have had a child in the last year.

Access surveys here, and provide valuable information about yourself to help develop empirically supported research to assist all the new mothers out there. Once the survey is complete, there is an option to meet with a supervised clinical psychology doctoral student for a free well-being consultation.

Babies welcome.

---WEBSITE---

And thank you, for everything.

Appendix B

Bowman, M. J., & Critchfield, K. L. (2016). *Maternal Well-Being Measure*. James Madison University. (rev. 06.18)

Maternal Well-Being Measure (MaWM)

1. Please rate your physical well-being on the following scale:

	Strong concerns	Healthy/Happy
Since Childbirth	-3 -2 -1 0 +1 +2 +3	
Before Pregnancy	-3 -2 -1 0 +1 +2 +3	

Please check any topics below that are areas of concern since the birth of your child:

- | | | |
|---|------------------------------------|---|
| <input type="checkbox"/> Eating | <input type="checkbox"/> Nutrition | <input type="checkbox"/> Exercise options |
| <input type="checkbox"/> Physical pain | <input type="checkbox"/> Sleep | <input type="checkbox"/> Nursing |
| <input type="checkbox"/> Medication use | | |

How would you describe your **physical** well-being?

2. Please rate your emotional well-being on the following scale:

	Strong concerns	Healthy/Happy
Since Childbirth	-3 -2 -1 0 +1 +2 +3	
Before Pregnancy	-3 -2 -1 0 +1 +2 +3	

Please check the topics that represent problems or areas of concern since the birth of your child:

- | | |
|---|--|
| <input type="checkbox"/> Anger/irritability/frustration | <input type="checkbox"/> Disturbing thoughts or images |
| <input type="checkbox"/> Sadness / crying | <input type="checkbox"/> Unusual experiences |
| <input type="checkbox"/> Worry / fears/ anxiety / panic | |

How would you describe your **emotional** well-being?

3. Please rate your relationship with yourself on the following scale:

	Strong concerns	Healthy/Happy
Since Childbirth	-3 -2 -1 0 +1 +2 +3	
Before Pregnancy	3 -2 -1 0 +1 +2 +3	

Please place a check next to topics that are areas of concern since the birth of your child:

- | | |
|--|---|
| <input type="checkbox"/> Body image | <input type="checkbox"/> Liking myself |
| <input type="checkbox"/> Self-confidence | <input type="checkbox"/> Making time for myself |

How would you describe your **relationship with yourself** now?

4. Please rate your relationship with others on the following scale:

	Strong concerns	Healthy/Happy
Since Childbirth	-3 -2 -1 0 +1 +2 +3	
Before Pregnancy	-3 -2 -1 0 +1 +2 +3	

Please place a check next to topics that are areas of concern since the birth of your child:

- | | |
|---|---|
| <input type="checkbox"/> My baby (or babies)
<input type="checkbox"/> My partner
<input type="checkbox"/> My other children | <input type="checkbox"/> My family of origin
<input type="checkbox"/> Work / school / community
<input type="checkbox"/> Lack of connection with others |
|---|---|

How would you describe your **relationship with others** now?

5. Please rate your ability to access needed resources

	Strong concerns	Healthy/Happy
Since Childbirth	-3 -2 -1 0 +1 +2 +3	
Before Pregnancy	-3 -2 -1 0 +1 +2 +3	

Please place a check next to topics that are areas of concern since the birth of your child:

- | | |
|---|---|
| <input type="checkbox"/> Information about parenting / babies
<input type="checkbox"/> Finances
<input type="checkbox"/> Child care
<input type="checkbox"/> Meals | <input type="checkbox"/> Housing
<input type="checkbox"/> Transportation
<input type="checkbox"/> Health care
<input type="checkbox"/> Baby needs (diapers, formula, gear) |
|---|---|

How would you describe your **ability to access needed resources** now?

6. Please rate the meaning of parenthood

	Strong concerns	Healthy/Happy
Since Childbirth	-3 -2 -1 0 +1 +2 +3	
Before Pregnancy	-3 -2 -1 0 +1 +2 +3	

Please place a check next to topics that are areas of concern since the birth of your child:

- How my baby / parenthood fits in with my life, identity, relationships

- Chance that I may repeat problem patterns from my own childhood
- Changing sense of my identity or values
- Changing sense of how others see or value me

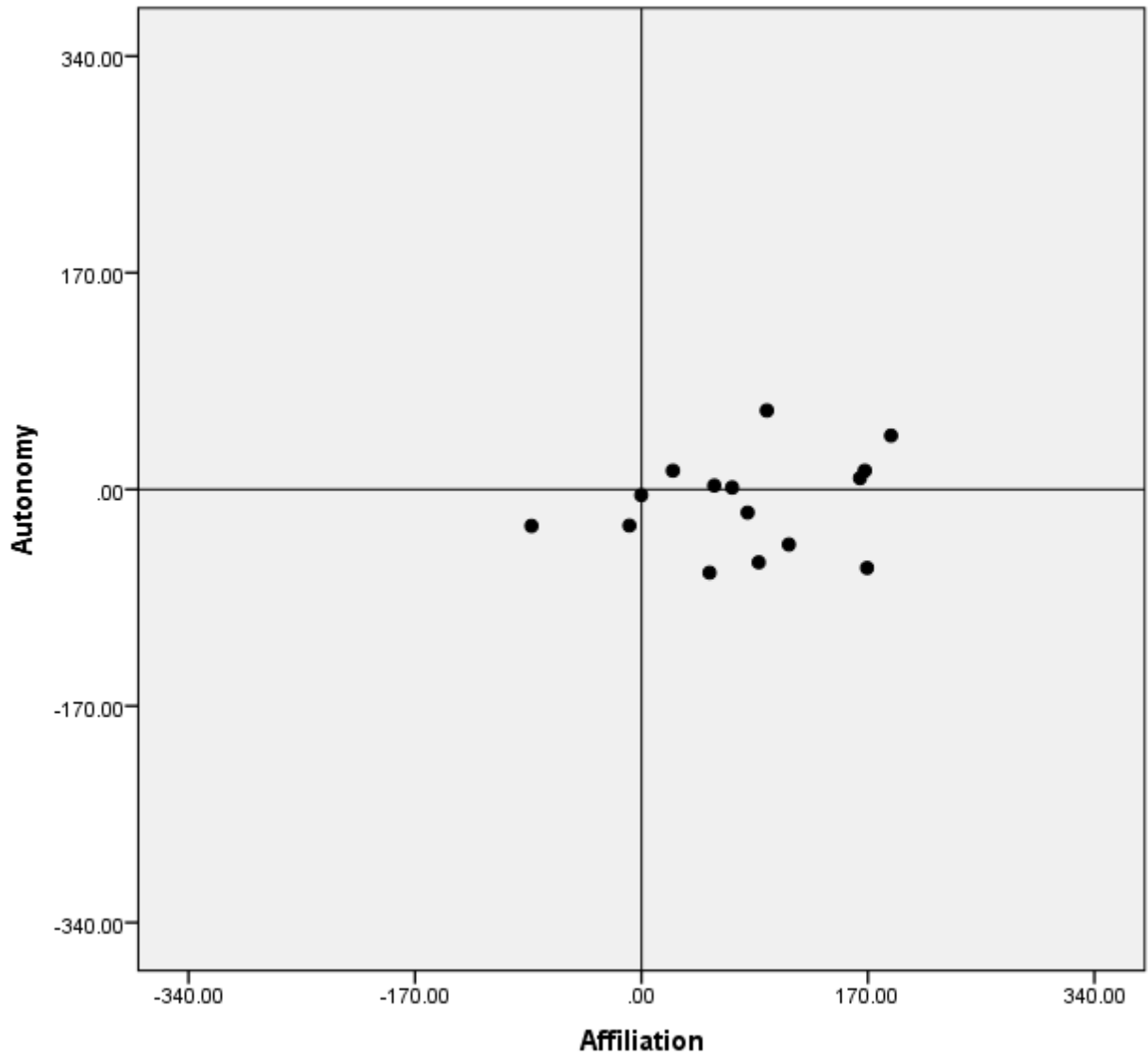
How would you describe the meaning of parenthood now?

Appendix C

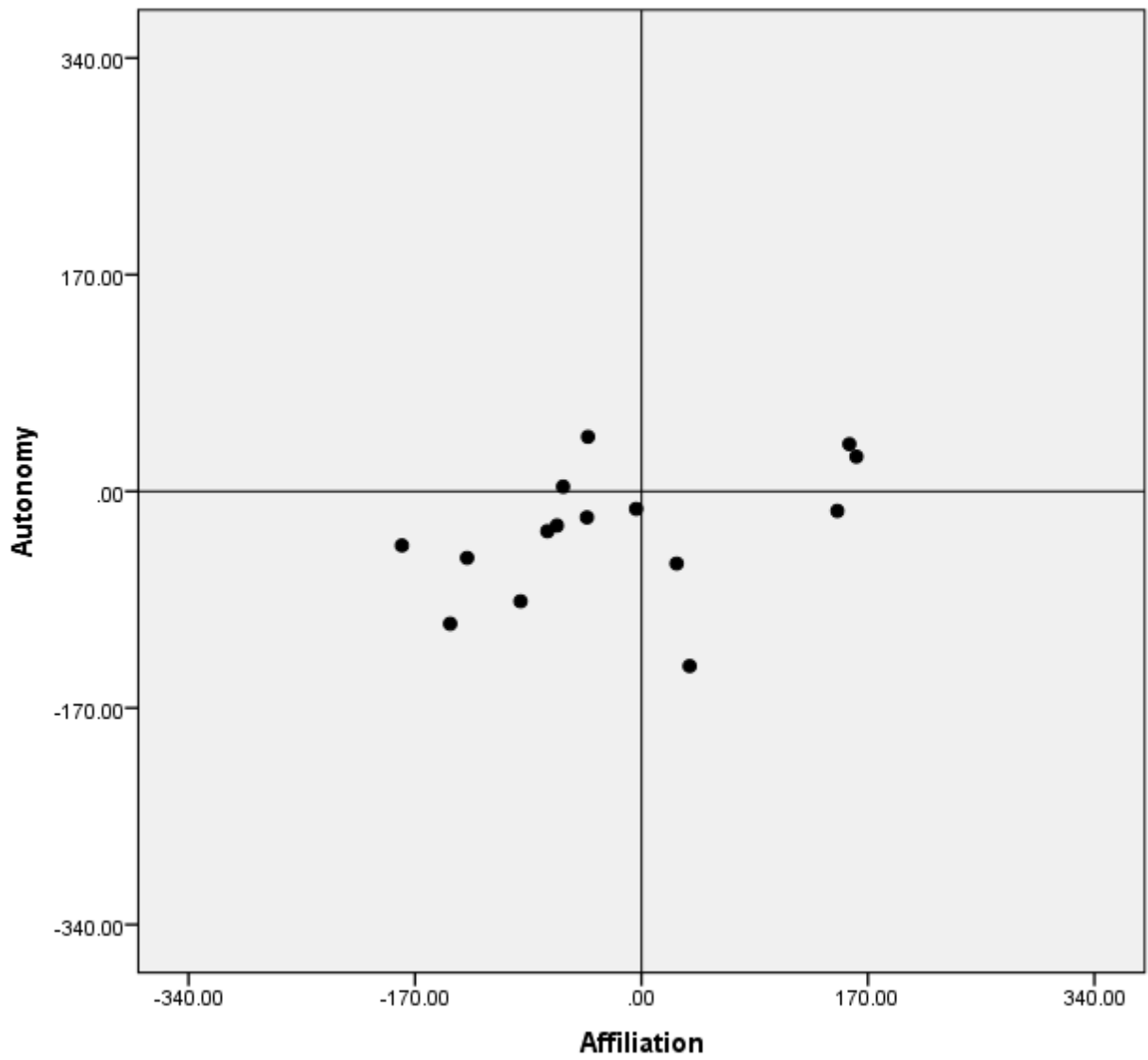
Appendix C; Set 1: Introject (best/worst) of the entire sample n = 21.

1. Mother's Self-treatment at Best
2. Mother's Self-treatment at Worst

1. Mothers' Introjective Self-Treatment at Best



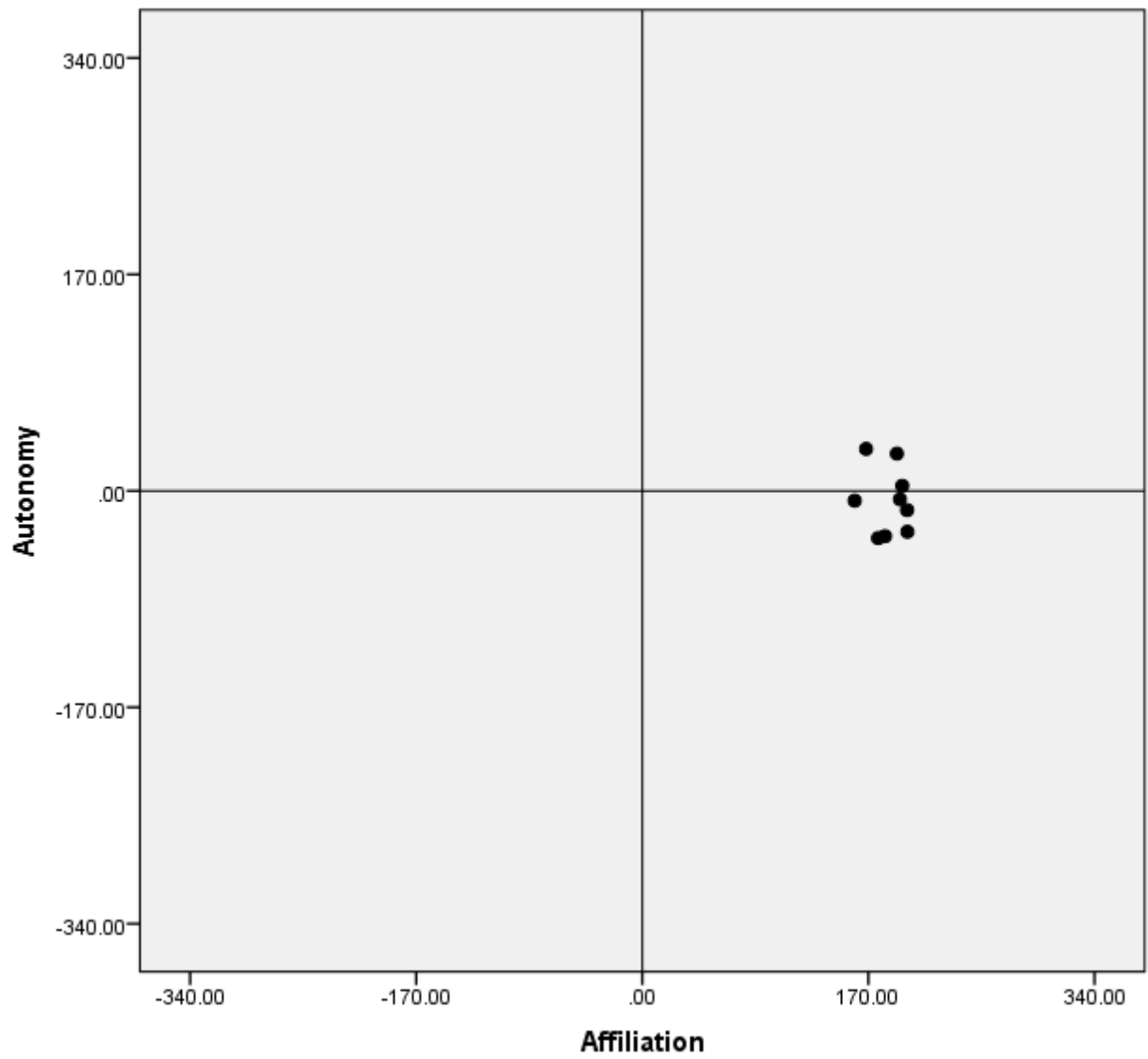
2. Mothers' Introjective Self-Treatment at Worst n = 21



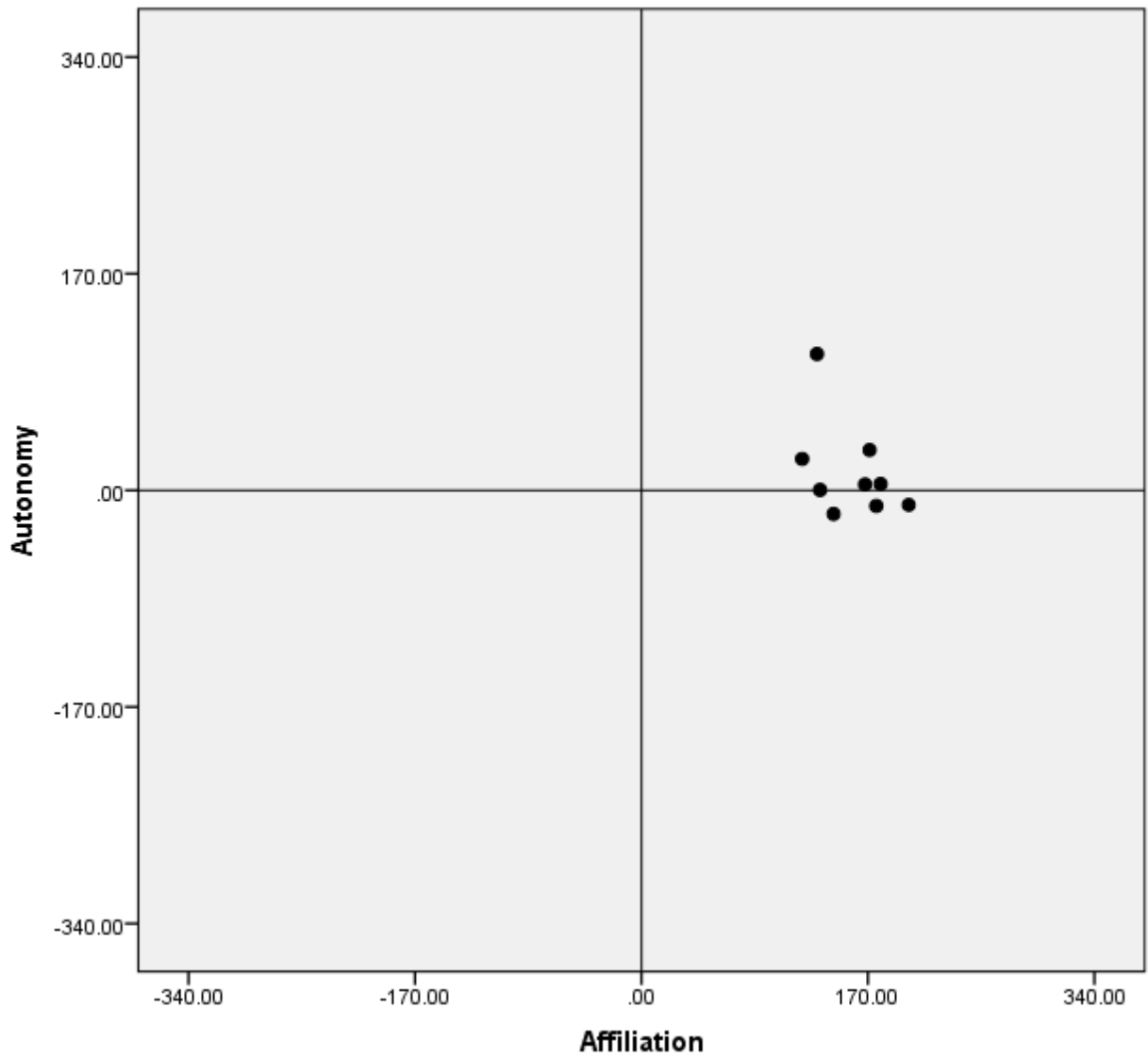
Appendix C; Set 2: Relationship with Infant at Best, n = 21

1. Maternal Focus on Infant
2. Infant Focus on Self
3. Infant Focus on Mother
4. Mother Focus on Self

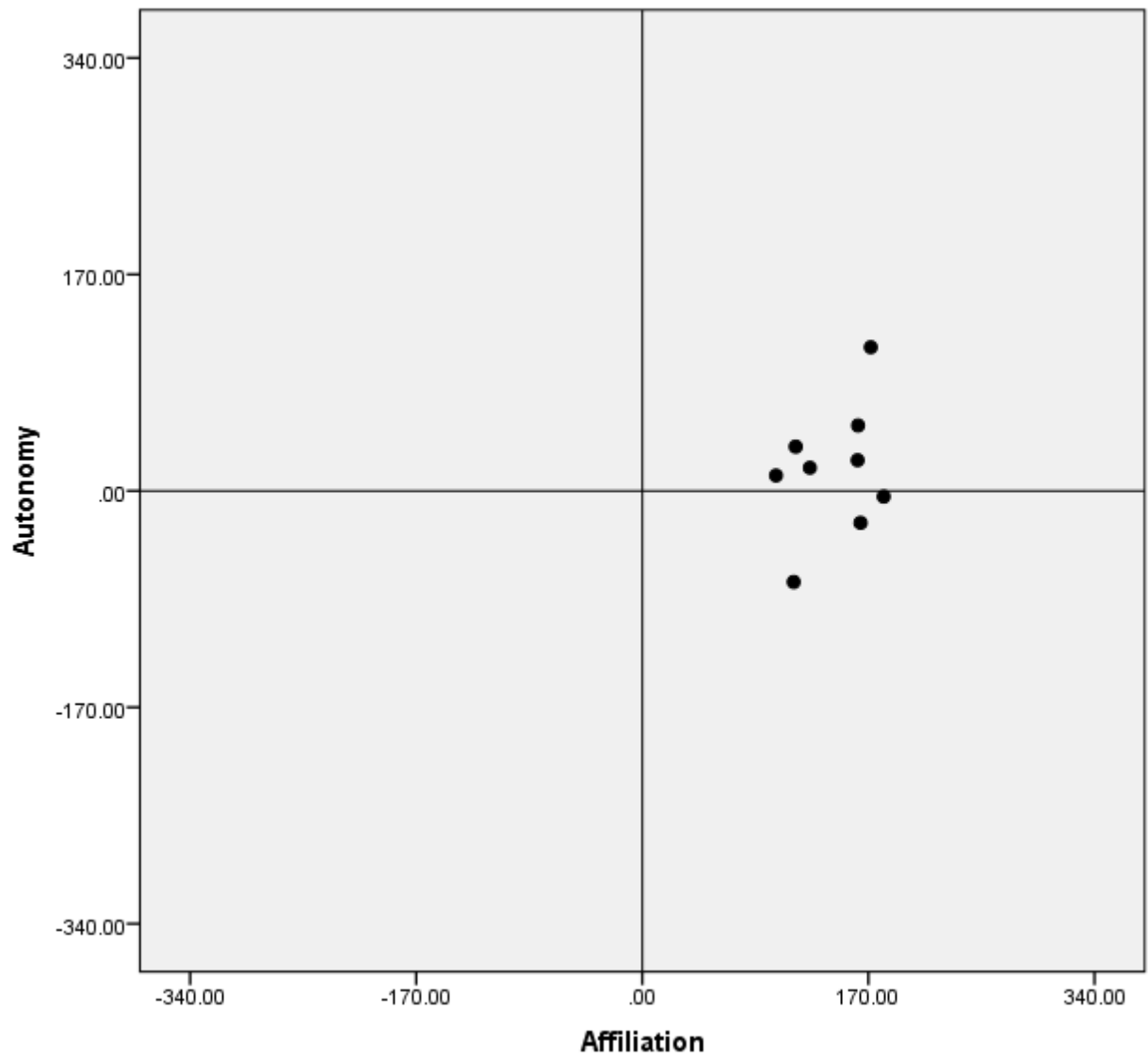
1. Maternal Focus on Infant at Best n = 21



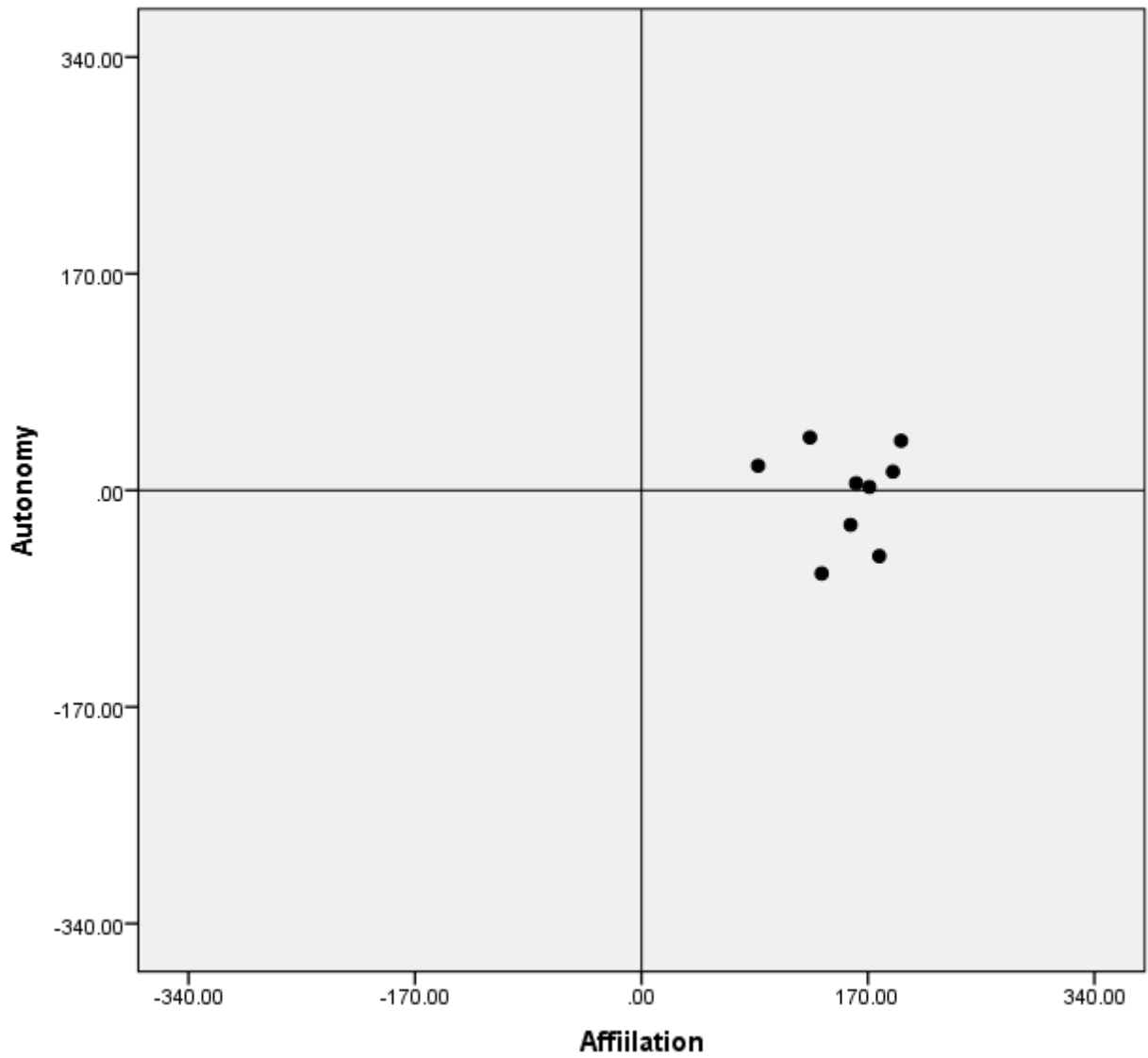
2. Infant response at Best (Maternal rating of Infant Focuses on Self) n =21



3. Maternal view of how Infant Focuses on Mother at Best, n =21



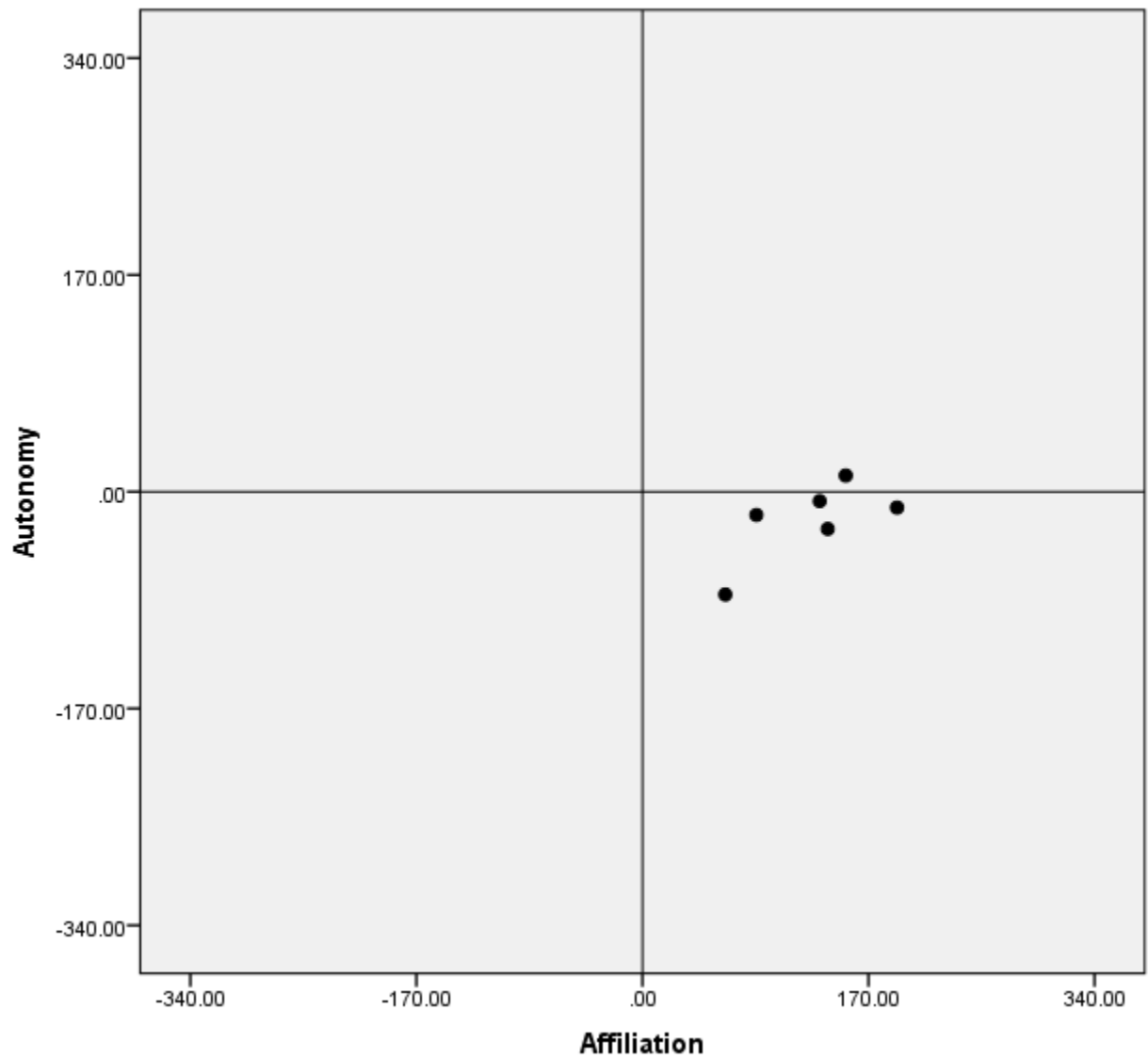
4. Maternal response to Infant at Best (Mother Focuses on Self), n = 21



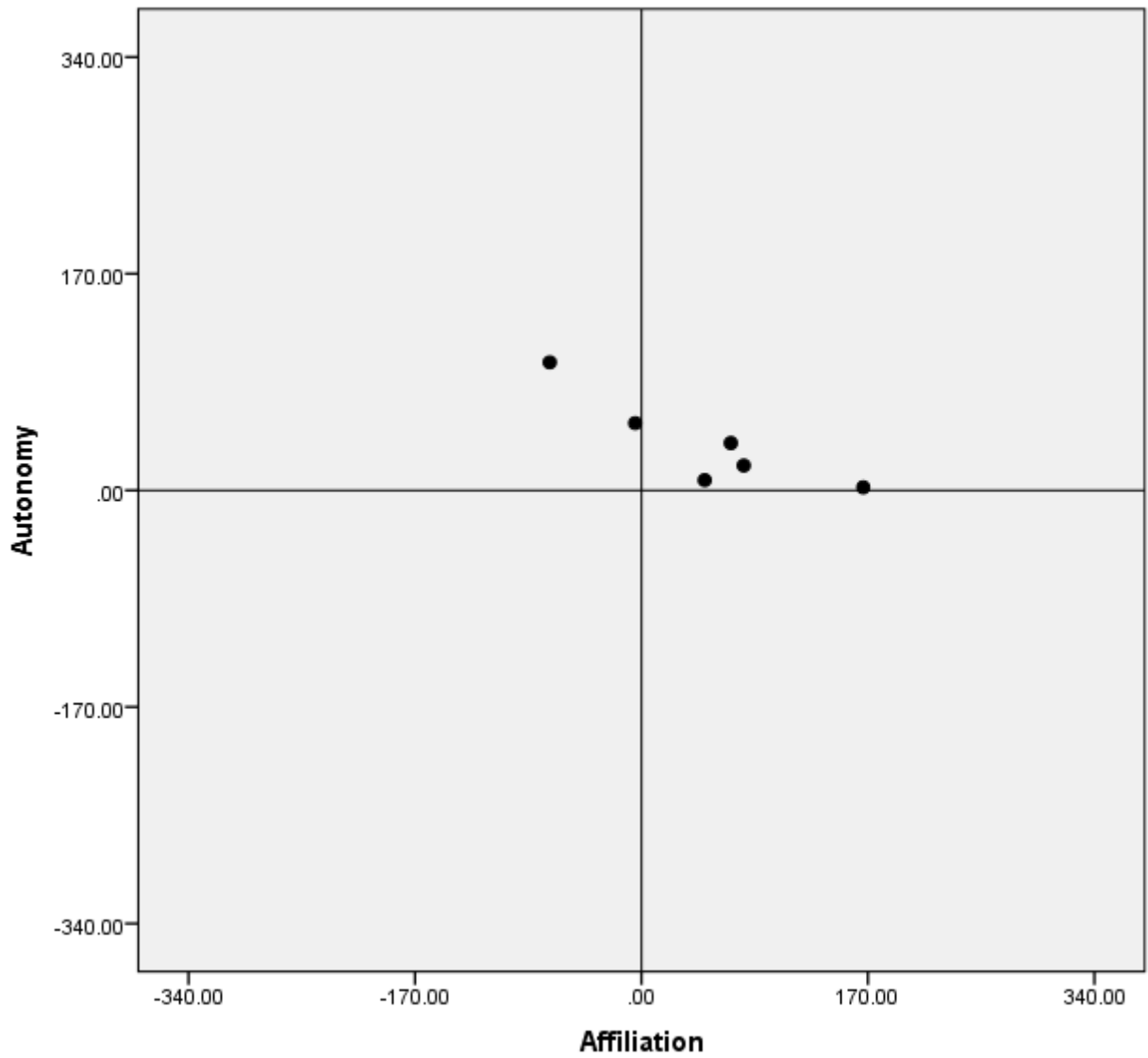
Appendix C; Set 3: Relationship with Infant at Worst, n =21

1. Maternal Focus on Infant
2. Infant Focus on Self
3. Infant Focus on Mother
4. Mother Focus on Self

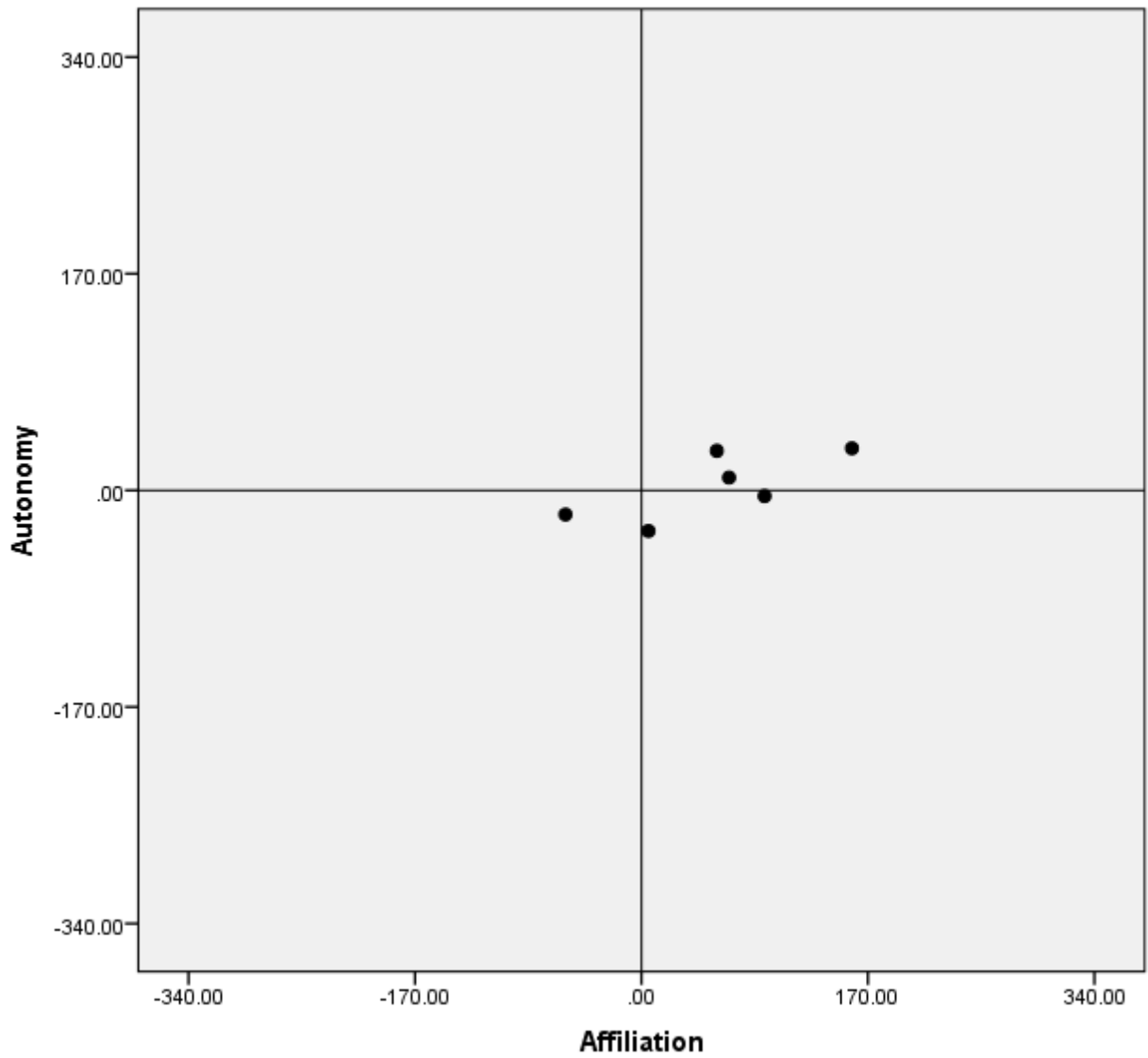
1. Maternal Focus on Infant at Worst, n =21



2. Infant response at Worst (Maternal rating of Infant Focuses on Self), n =21



3. Maternal view of how Infant Focuses on Mother at Worst, n = 21



4. Maternal Response to Infant at Worst (Mother Focuses on Self), n = 21

