EMERGING ADULTS' MENTAL HEALTH:

THE INFLUENCES OF PARENTAL ATTACHMENT BONDS

AND IDENTITY FORMATION PROCESSES

by

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DEDICATION

To Unk: a constant source of support and wisdom, and the one responsible for my

present-day caffeine consumption. I wish you could have seen this – I think you would

have thought this was pretty cool.

ABSTRACT

Emerging adulthood (Arnett, 1998) is a developmental phase characterized by the search for and formation of an autonomous and integrated identity. Specifically, this phase entails a transition from adolescent to adult roles, and has been proposed to subsequently influence emerging adults' mental health (e.g., Graber & Brooks-Gunn, 1996). Emerging adulthood is also marked by continued financial and instrumental dependence on parents, which may implicate the current parental relationships as another relevant influence on mental health. This influence may be direct, or indirect via the manner in which emerging adults explore and commit to identities independent of their parents. The goal of the present research was to understand if and how current parental attachments to mothers and to fathers, and identity formation processes, influence emerging adults' mental health. Specifically, identity was proposed to mediate the path between parental attachment and mental health. Two studies were conducted to evaluate this model. Study 1 was quantitative and emerging adults ($N = 317$), recruited from post-secondary institutions and workplaces, completed questionnaires assessing current parental and general attachments, identity formation, and mental health. Higher scores on maternal attachment predicted higher identity foreclosure scores, but it was lower scores on diffusion and moratorium, and higher scores on achievement, that predicted better mental health. As such, results did not support the proposed mediational model. To provide context to and greater understanding of the quantitative results, a qualitative study (Study 2) was conducted with 18 of the same emerging adults. Through interviews and thematic analyses of the transcripts, it was revealed that parents are important to emerging adults' identity formation, albeit in an indirect, emotionally supportive role. Further, other

relationships (e.g., peer, romantic) may be more directly influential on emerging adults' identity formation. It was also found that identity is considered to be an important concept to mental health by emerging adults, but a difficult and emotional one to discuss. Finally, emerging adults' perceptions of certain characteristics (e.g., continued dependence on parents) may be a potential predictor of mental health. Strengths and limitations of the present research, and directions for future research, are discussed.

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Krista, I am fairly certain that I owe you the biggest therapy bill ever – you have more than once "made an assessment", and always have done so with your patient and gracious nature. We are kindred spirits, in the truest sense, and you are the best social worker ever!

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thank you for pushing me along each and every time I was ready to throw in the towel –

this thesis is done because of your encouragement and support. I love you all.

It might be a quarter life crisis
Or just the stirring in my soul
Either way I wonder sometimes
About the outcome
Of a still verdictless life

~ John Mayer, "Why Georgia"

And after all this, I have finally become an adult.

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CHAPTER 1

Introduction

1.1   Background

The contemporary young adult's experiences are diverse, complex and rife with changes (Amato & Afifi, 2006; Arnett, 2006). For instance, Bowlby and McMullen (2002) found that over a third of youth ages 18 to 20 years old did not pursue an educational program after completing high school, while approximately another half enrolled in some form of post-secondary education. Within each of these groups, varying proportions of participants reported full-time or part-time work, or were unemployed. Relationship status is also variable; some individuals immediately marry and start a family, and others delay the search for a romantic partner, or have children with/without being in a stable romantic relationship (Bowlby & McMullen, 2002). And, although some individuals permanently leave the original family home after high school, more young adults are staying at home longer or are returning after having already left the nest (Boyd & Pryor, 1989). The 2006 Canadian Census reported that 43.5% of individuals aged 20 to 29 years continued to live with or return to live with their parents (compared to 27% of this age group in 1981; Statistics Canada, 2007). Overall, it appears that the period of young adulthood after high school graduation is best characterized by a diversity of life experiences; yet regardless of the precise route taken, young adults use their chosen paths to achieve greater self-understanding and to adopt a better sense of identity.

Given the developmental variability of this time period, it is not surprising that the majority of mental disorders emerge during adolescence and young adulthood (Health Canada, 2002). For example, the uncertainty about the future, or the pressure to conform to a particular life path by family, friends or society, can produce feelings of anxiety,

fear, and depression. Kirby and Keon (2004) found that the highest prevalence of mood or anxiety disorders, or substance dependence problems, was with youth aged 15 – 24 (18%, or 19.8% of women and 17.5% of men in this age group, Statistics Canada, 2004). And, according to the United States Government Accountability Office (GAO), approximately 2.4 million young adults (18 – 26 years) had a serious mental illness (GAO, 2006). However, increases in well-being have also been noted during this time period (Schulenberg & Zarrett, 2006), as individuals experience excitement and happiness in exploring their developing identities, or in trying new activities from which they previously refrained. The prevalence of mental disorders in this developmental group supports an examination of mental health predictors, but to do so in a manner that acknowledges the multidimensionality of mental health (i.e., well-being and distress; Keyes & Waterman, 2003) and the search for an identity (e.g., Montgomery, Hernandez & Ferrer-Wreder, 2008).

One relatively understudied predictor of young adults' mental health is their current parental attachments. It has been assumed that achieving full 'adult' status and a coherent identity involves a switch from parental relationships to more age-appropriate, romantic bonds (Weiss, 1991). As such, significant research efforts have focused on these relationships (e.g., romantic partners, Hazan & Shaver, 1987; peers, Armsden & Greenberg, 1987) and their respective influences on mental health; however, parental relationships may continue to be salient as more young adults continue to live in the original parental home beyond adolescence (Boyd & Pryor, 1989). There is scarce research at present that examines the influence of current parental attachments on emerging adults' mental health, and certainly not within the context of a model that

acknowledges the complexity of contemporary emerging adults' experience and the importance of achieving a coherent identity to their mental health.

1.2   Objectives

The present research sought to examine the relation between emerging adults' current relationships with their parents and their search for an identity, and how these two factors influenced their mental health. This model was explored in two studies. The first study was a quantitative examination of the direct and indirect paths between parental relationships, identity and mental health, with a particular focus on current parental relationships, and on any differences in contribution between mothers and fathers. In study 2, a qualitative analysis was then undertaken to provide context to the quantitative findings, and to explore the processes involved in identity formation, parental relationships and mental health at this stage. To further contribute to the existing emerging adulthood literature, several methodological considerations were made in the present research: the need for a more representative sample, possible gender differences, and the importance of studying mental health as a multidimensional construct.

CHAPTER 2

Literature Review

2.1   Emerging Adulthood: The Search for Identity

Identity Theory: An Overview

According to Erikson, individuals are faced with eight stages of ego development as part of the aging process, and encounter a crisis that they might successfully resolve before progressing to the next stage (Erikson, 1950, 1968). In adolescence, individuals are confronted with the considerable task of forming an identity. To create a "unique and reasonably coherent whole" (Erikson, 1968, p.161), adolescents attempt to alter previously significant social/cultural roles and skills from childhood, and integrate these with perceived social/occupational opportunities of the future and a rapidly developing physiology (Erikson, 1966). Identity formation is an important step for adolescents, and must be achieved before they can successfully cope with the task of developing and maintaining intimate romantic and social relationships in young adulthood. As such, identity is believed to be critical to future relationships with others; if the individual's identity is incoherent or fragmented, his/her subsequent relationship results in romantic/social isolation (Erikson, 1966).

Marcia (1966) operationalized Erikson's theory on identity formation (Figure 1), portraying identity as two independent dimensions of identity exploration and commitment, with high and low levels of each combining to create four profiles of an individual's identity status. If individuals have adequately explored potential selves before committing to one consolidated identity, they are said to have identity *achievement*. The three remaining statuses are indicative of identity crises. Individuals

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Figure 1.

Marcia's (1966) Identity Status Model

COMMITMENT

	HIGH	LOW
HIGH	Achievement	Moratorium
LOW	Foreclosure	Diffusion

EXPLORATION

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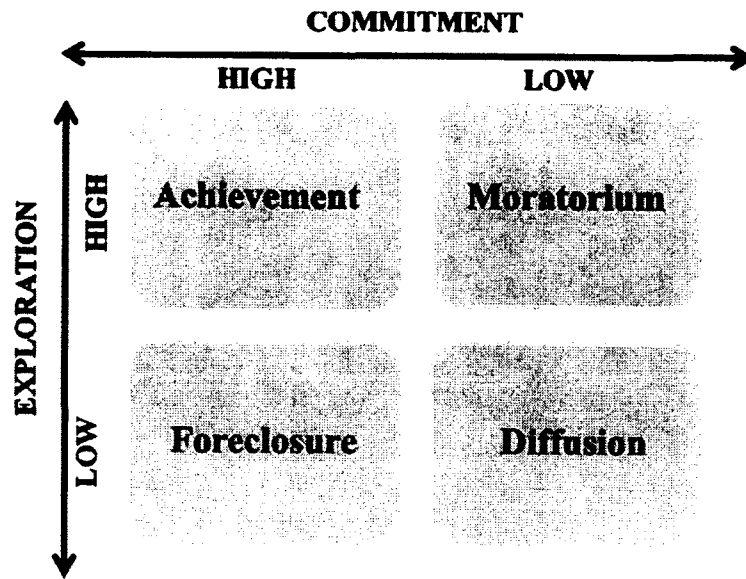
are in an identity *moratorium* when they engage in high levels of active exploration for themselves, but have not or cannot effectively commit to a final identity. In contrast, identity *foreclosure* describes individuals who have committed to an identity but have not adequately explored all the possible selves. Finally, identity *diffusion* is marked by low exploration and commitment; individuals are apathetic and lack any real concern in achieving a coherent identity. Based on Marcia's model, identity has either been measured as dimensions of identity exploration and commitment, or as four dimensions of identity achievement or crisis. It can also be used to categorize individuals into one of four statuses, which is useful as a descriptive tool but has a tendency to oversimplify the identity formation process.

Although Erikson's identity theory is widely utilized, its applicability to late adolescents and young adults in contemporary industrialized society is open to discussion. Arguably, the pathways for future adult roles in Erikson's time were limited to quickly finding an occupation and a romantic partner for marriage and child rearing. Although Erikson (1968) recognized the presence of society-imposed moratoria (in which society permits its adolescents a delay in committing to adult roles), individuals today have greater freedom and length of time in such moratoria than adolescents approximately 35 years ago. As the previously noted demographic statistics indicate, there is a significant delay in Western cultures to transition from child to adult roles (Graber & Brooks-Gunn, 1996), and it is no longer normative for late adolescents to immediately settle into long-term adult roles after completing high school (Arnett, 2000; Côté, 2006). The increased heterogeneity of the transitions to adulthood provides

evidence that contemporary adolescents and young adults take considerably longer to achieve identities than Erikson's original theory would predict.

Moreover, recent empirical evidence indicates that the term 'young adult' is a misnomer. The individuals to whom this label previously referred do not consider themselves to have achieved adult status, nor do they consider themselves to be adolescents (Arnett, 1998, 2006; Chen, Cohen, Kasen, Gordan, Dufur & Smailes, 2004; Isaacowitz, Vaillant & Seligman, 2003). It is instead more appropriate to conceptualize a transitional period between adolescence and young adulthood – not as a limited series of events that permit successful entry into adulthood if successfully completed (Arnett, 2000, 2006), but rather as a developmental phase in which numerous occupational and relationship possibilities are accessible (Eccles, Templeton, Barber & Stone, 2003).

A Model of 'Emerging Adulthood'

Arnett (1998, 1999, 2000, 2001, 2004, 2006) proposes the existence of *emerging adulthood*, a distinct developmental phase that acknowledges the variability in individuals' experiences and feelings of being "in-between" two, better-known life periods (i.e., adolescence and young adulthood). *Entry* into emerging adulthood typically takes place when individuals finish high school (i.e., age 18; Arnett, 2000); after high school, society encourages individuals to make important life choices about their future careers, education, relationships, values and beliefs. The *departure* from emerging adulthood is less clear. It is evident from research that the use of benchmark demographic indicators to gauge the successful passage into adulthood is not appropriate. In a study of 171 adolescents (13-19 years), 179 emerging adults (20-29 years) and 165 young/middle-aged adults (30-55 years), Arnett (2001) asked participants to generate criteria that

defined the entrance into adulthood. Instead of determining adult status by an individual's

age, departure from the original family home, marriage, child-bearing, or a particular

route (e.g., full-time employment versus pursuing a post-secondary education), the

transition from emerging adulthood to young adulthood was marked by: a) an ability to

assume full responsibility for personal actions, and b) an achievement of decision-

making/financial independence from parental figures (Arnett, 2000, 2001). Interestingly,

all three cohorts consistently deemed these criteria as the most important in classifying

someone as an adult. Although existing research varies in identifying the upper age limits

of emerging adulthood[1], the caveat is offered that entrance into adulthood is gradual and

highly dependent upon the criteria cited in Arnett's (2001) study: the individual's

successful attainment of a coherent identity and self-sufficiency from the family of

origin.

Emerging adulthood has been described as the "quarter-life crisis" (p. 151; Arnett,

2004), in which the search for a satisfactory and fulfilling identity motivates emerging

adults to explore different career and education paths, relationships, morals and beliefs.

Perhaps a well-known example to many in university settings is the indecision that

appears to face many undergraduate students. It is not uncommon to find a student who

changes degree programs several times, leaves school to try working in 'the real world',

and then decides to return to university and complete his/her education. Although the

changes may seem haphazard and frivolous to observers, this form of identity exploration

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[1] Arnett (2000) often defines emerging adulthood as between and including the years of 18 to 25, but his research has varied with participant groups ranging from 20 and 29 years (Arnett, 2001) and 18 to 28 years (Arnett, 2003). Indeed, the Society for the Study of Emerging Adulthood cites 18 – 29 years as the boundaries of emerging adulthood. Still others extend the transition into the early thirties: Clark (2007) examined 'young adults in transition' as between the ages of 18 – 34 years, to ensure that the range of emerging adult experiences was sampled. Rumbaut (2004) adopted a similar approach but further categorized three groups of transitioning young adults: those in an early stage of transition (18 – 24 years), those in a middle stage of transition (25 – 29 years), and those in a late transition stage (30 – 34 years).

is necessary before emerging adults are comfortable with incorporating others into their lives via long-term commitments (e.g., marriage, home ownership). As such, Arnett (2000) incorporates Erikson's (1950, 1968) proposition that individuals must know themselves before they are prepared to come together intimately with another person.

The emerging adult's identity search is facilitated by increased financial independence and personal autonomy, but is often tempered with a partial dependence upon instrumental support from parents. This support permits emerging adults greater freedom to explore potential selves and different modes of living (as well as make mistakes and learn lessons), with the goal of achieving a deeper self-understanding. As emerging adults transition into adulthood, their newly formed identity provides a foundation for later adult development, that will be continually shaped throughout life as situations in the environment (e.g., birth of a child, death of a parent) demand (Arnett, 2004).

Testing a Mediational Model of Emerging Adult Mental Health

As the possible paths and opportunities can seem endless, the search for identity can be an adventurous and exciting experience for some emerging adults. Yet, the opportunity for behaviour change, creation, or elimination (such as in emerging adulthood) potentially leads to subsequent variations in mental health (Graber & Brooks-Gunn, 1996). In one university-based sample of emerging adults, it was shown that improved mental health correlated with increasing age (Galambos, Barker & Krahn, 2006). However, since emerging adults are no longer operating within a well-defined developmental phase, the resultant instability and inability to settle upon an identity can result in significant confusion and distress for some individuals (Erikson, 1966). It is thus

appropriate to investigate the interpersonal/social predictors of mental health as emerging

adults shift from adolescence to adulthood (Seiffge-Krenke, 2006). Establishing common

factors can contribute to a coherent theoretical structure, assist clinical prediction, and

inform effective therapeutic interventions for this population. It may also help to explain

why some individuals are in this transitional phase longer than others or are unable to

achieve an autonomous adult identity.

Throughout the emerging adulthood literature, it is clear that parents have an

important role in identity formation. Parents may provide some level of instrumental

support or even an example of "what not to be". Qualitative interviews have revealed that

healthy detachment is a gradual process, and many emerging adults still rely on their

parents in different degrees (e.g., living at home and paying low rent in order to save

money for a major purchase, but still retaining full autonomy over life decisions; Arnett,

2004). The achievement of self-sufficiency from parental figures is inextricably linked to

identity formation and is a key event in becoming an adult (Arnett, 2004; Carroll,

Willoughby, Badger, Nelson, McNamara, Barry & Madsen, 2007).

The exploration of the emerging adult-parent relationship is one potential

predictor of emerging adults' mental health. However, previous research has equated the

need to establish autonomy from parents with the necessity for complete parental

detachment. As such, the literature is abundant with research on the peer and romantic

relationships of emerging adults, but parental bonds have been relatively ignored. There

is support, though, for: a) better identity formation and mental health when emerging

adults achieve a balance between autonomy and connectedness to the parents (e.g.,

Cooper, Grotevant & Condon, 1983); and b) more identity or mental health issues when

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emerging adults attempt to completely detach from parents or remain deeply connected to them (e.g., Blos, 1979). It appears that a healthy parental relationship is integral to both identity formation and mental health in emerging adulthood.

In the present research, the specific relation between parental relationships (as framed in the context of attachment theory; Bowlby, 1969, 1979, 1980, 1988), identity formation, and mental health was projected to be a mediated relation, with identity formation mediating the association between parental attachment and mental health. Figure 2 presents the hypothesized model with identity formation (represented as four dimensions of identity diffusion, moratorium, foreclosure and achievement) acting as a mediator. Subsequent sections review bodies of research that support each path in the model (i.e., parental attachment and mental health, parental attachment and identity formation, and identity formation and mental health). The discussion will now turn to the theory supporting a relation between parental attachment and mental health in emerging adulthood.

Figure 2.

Proposed Model of Parental Relationships, Identity and Mental Health in Emerging Adulthood
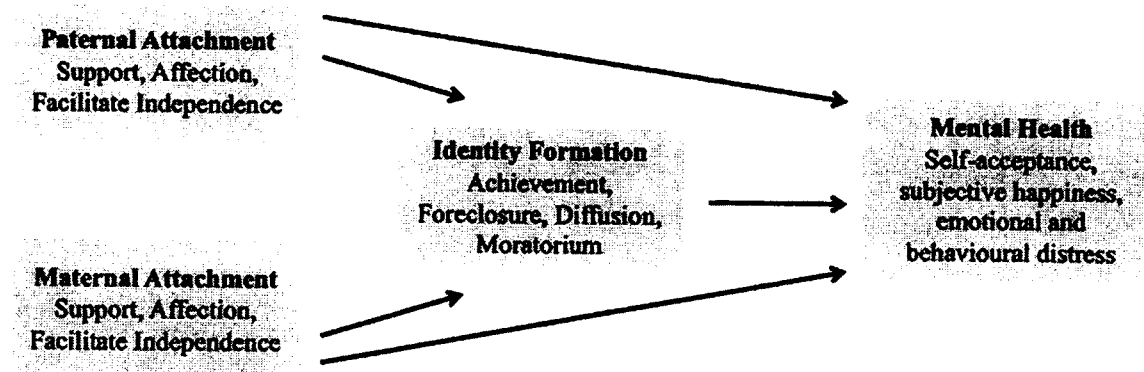
2.2   Parental Attachment and Mental Health in Emerging Adulthood

Attachment Theory: An Overview

The primary caregiver attachment relationship is a child's first attachment. It is thus not surprising that primary caregivers' impact on children has been extensively studied and is generally found to have an important impact on the neurological and social development of children (Gerhardt, 2005). Bowlby (1969, 1979, 1980, 1988) proposed that the early experiences with the primary caregivers establish the foundation for children's future interpersonal interactions and personality development.

Through their primary caregiver relationship experiences, children develop cognitive representations of their attachment figures, or internal working models (Bowlby, 1969; Pietromonaco & Feldman-Barrett, 2000). At an early age, infants first learn to keep the caregiver readily accessible should they need parental support and comfort. Through repeated interactions, infants eventually learn whether or not they can trust and depend upon their primary caregivers to meet their needs; an attachment forms as a result (Bowlby, 1988). Infants with satisfactory caregiver attachment relationships develop a secure attachment, whereby the infant may be distressed at separation from the primary caregiver but is reassured upon reunion. Further, infants will demonstrate some independence and use primary caregivers as secure bases from which to explore their surroundings (Bowlby, 1988).

Figure 3 (page 15) illustrates Bowlby's model of the infant attachment system; yet, it was not until Ainsworth, Blehar, Waters and Wall (1978) provided empirical evidence of Bowlby's theories that individual differences in attachment were delineated (Fraley, 2004). In the "Strange Situation" experiment, parents and infants are led into the

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experimental room (a playroom with toys) and the parent allows the infant to explore the room uninterrupted. Then, two episodes of separation and reunion take place. In the first episode, a stranger enters the room and directs his/her behaviour towards the infant (as the parent quietly leaves for a brief time). The stranger leaves upon the parent's return, and the parent is reunited with the child. In the second episode, the parent leaves the infant alone first before the stranger's arrival. After a similar length of time, parent and infant are reunited. Based on infants' reactions to parental separation and reunion, and their exploration of the play-room environment, Ainsworth and colleagues observed three attachment styles. Securely attached infants develop positive internal working models of themselves as worthy of love and affection, and of others as warm, trustworthy and supportive figures (Ainsworth et al., 1978; Bowlby, 1969, 1979). However, unsatisfactory or inconsistent attachment relationships are represented as negative models of the self and/or of others. Specifically, anxious infants are preoccupied with the availability of the caregiver and will resist efforts to be comforted upon reunion. Avoidant infants repress their distress and avoid contact with primary caregivers upon their return (Ainsworth et al., 1978). The information contained in internal working models assists the developing child in recalling previous relationship experiences, in filtering and interpreting new relationship information, and in subsequently behaving in ways that are congruent with their previous attachment experiences (Pietromonaco & Feldman-Barrett, 2000). Moreover, internal working models are posited to be stable cognitive structures but can change either positively (e.g., through psychotherapy; Tasca, Balfour, Ritchie & Bissada, 2007) or negatively (e.g., such as parental divorce; Waters, Merrick, Treboux, Crowell & Albersheim, 2000; Weinfeld, Sroufe & Egeland, 2000).

Figure 3.

Bowlby's Model of the Infant Attachment System (Fraley & Shaver, 2000)
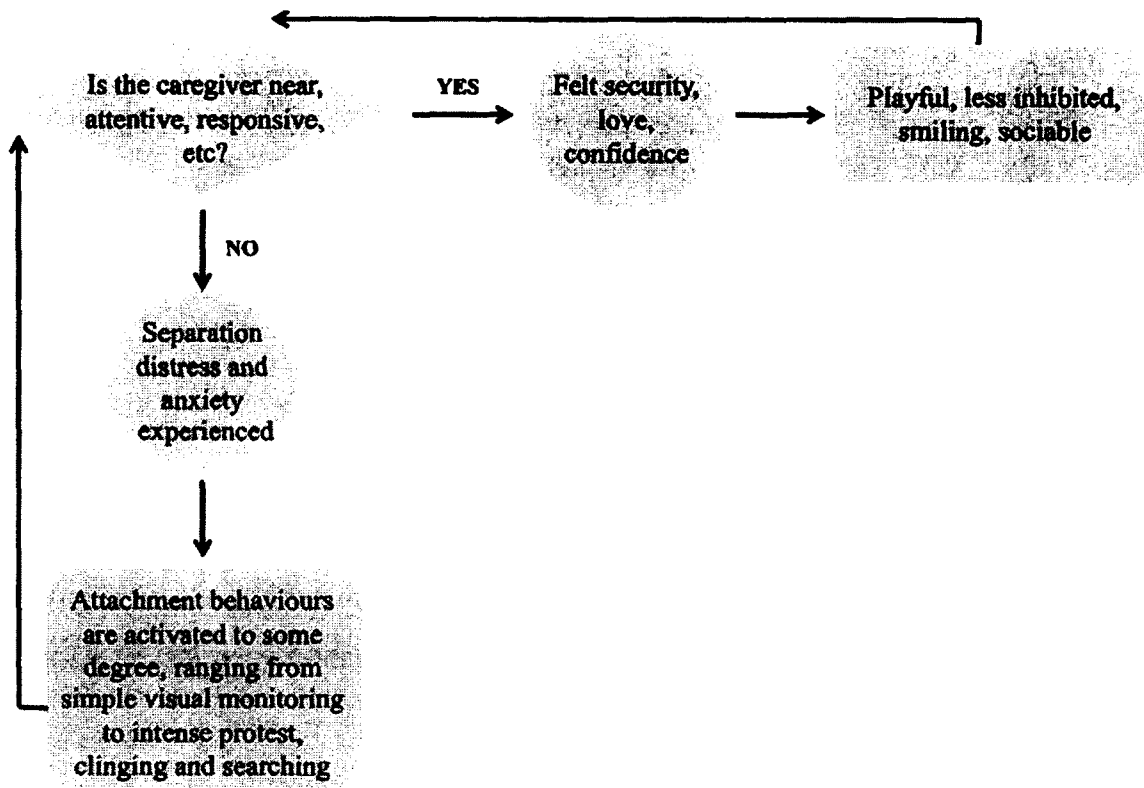
Internal working models have been studied through either a prototype or a revisionist perspective. According to the prototype perspective, children internalize their primary caregiver attachments as the basis for their internal working models (Bowlby, 1988). The early representations of primary caregivers remain unchanged throughout life, but continue to shape later attachment representations (Fraley, 2002; Hamilton, 2000). A revisionist perspective has also been proposed, in which early caregiver representations change as the individual acquires new relational information. However, meta-analytic data demonstrates that the prototype perspective of attachment best accounts for the relative stability and dynamics of attachment style (Fraley, 2002). It is important to note that although internal working models act as general cognitive/behavioural guides to navigating future relationships, relationship-specific variations are possible (Collins & Read, 1994; Cozzarelli, Hoekstra & Bylsma, 2000; Ross & Spinner, 2001); an individual may be secure overall but demonstrate some insecurity within a particular relationship domain.

Measuring Categories or Dimensions of Attachment?

Since the proposal of attachment theory, taxonomy has remained a key issue in the literature (for a review of the diverse attachment classifications and measures in use, see Brennan, Clark & Shaver, 1998). These systems have conceptualized attachment as either a number of categories or types, or as a series of patterns on a number of dimensions. As parental attachment is an essential variable in the present research, it is important to qualify the taxonomic position to be taken here.

Categorical or type models label individuals as one of several mutually exclusive attachment styles. Extending Ainsworth et al.'s (1978) three-category classification of

secure, avoidant and anxious/ambivalent infants, Hazan and Shaver (1987) hypothesized three categories of adult romantic attachment. Bartholomew and Horowitz (1991) proposed a four-category model of general adult attachment, based on the possible combinations of positive/negative internal working models of the self and of others. *Secure* attachment is conceptualized as positive self- and other-models, and the three remaining combinations of self/other models distinguish attachment insecurity. *Dismissing* individuals perceive themselves in a positive manner but their relationship avoidance is marked by negative other-models. *Preoccupied* individuals are depicted as the contrary of the dismissing type; they view others positively, but have a poor self-concept and subsequent relationship anxiety. *Fearful-avoidant* individuals are described as the opposite of securely attached people, and have negative models of the self and of others (Bartholomew & Horowitz, 1991). Categorical attachment measures such as those proposed by Bartholomew and Horowitz (1991) and Hazan and Shaver (1987) have been used extensively in attachment research. The primary attraction of categorical models is that they are "user-friendly": individuals are classified into one of several types, can be easily measured and analyzed, and an individual's group membership is simpler to discuss (as opposed to keeping track of several different dimensions).

Although the relative simplicity of categorical models resulted in their widespread use, these models possess limitations that override these benefits (namely, they restrict research and data interpretation; Noller & Feeney, 2002). Categorical models conceptualize attachment as mutually exclusive prototypes, whereas data suggests complex underlying dimensions. One widespread example of a dimensional approach to attachment classification is Brennan, Clark and Shaver's (1998) expansion of Hazan and

Shaver's (1987) three-type model, in which Brennan et al. (1998) recognized the importance of measuring the two dimensions (anxiety and avoidance) that underlie the three types. Figure 4 depicts the relation between the four categories of attachment styles (secure, dismissing-avoidant, fearful-avoidant, preoccupied) and the two dimensions of attachment-related anxiety and avoidance.

More recent empirical research has confirmed quantitative (Ross, McKim & DiTommaso, 2006) and qualitative differences (Robinson & DiTommaso, 2007) between the internal working models of each type. In an extensive examination of constructs underlying general adult attachment, Ross et al. (2006) found different combinations of constructs form Bartholomew and Horowitz's (1991) four prototypes. Confidence and security in the self, along with confidence and comfort in others, marked secure attachment in close relationships. Dismissing individuals displayed security and independence but were also defined by a lack of self-confidence. Preoccupied individuals demonstrated insecurity and anxiety in the self and a lack of confidence in others. The fearful prototype consisted of insecurity and lack of confidence in the self, in addition to a lack of confidence in others, and discomfort, avoidance and anxiety with close relationships. Overall, secure attachment was the only prototype to consist of wholly positive self/other models. The positive self of dismissing individuals was based on a lack of self-confidence (and likely is a façade constructed to assist in short-term coping with stressors; Robinson & DiTommaso, 2006; Ross et al., 2006). Preoccupied individuals' positive other-model was similarly betrayed by a lack of confidence in others. Thus, merely knowing the valence of self/other working models or membership to an attachment category is insufficient to fully understanding an individual's attachment.

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Figure 4.

Brennan et al. (1998) Model of Adult Attachment

Low Avoidance

Secure   Preoccupied

Low Anxiety ← → **High Anxiety**

Dismissing-Avoidant   Fearful-Avoidant

High Avoidance
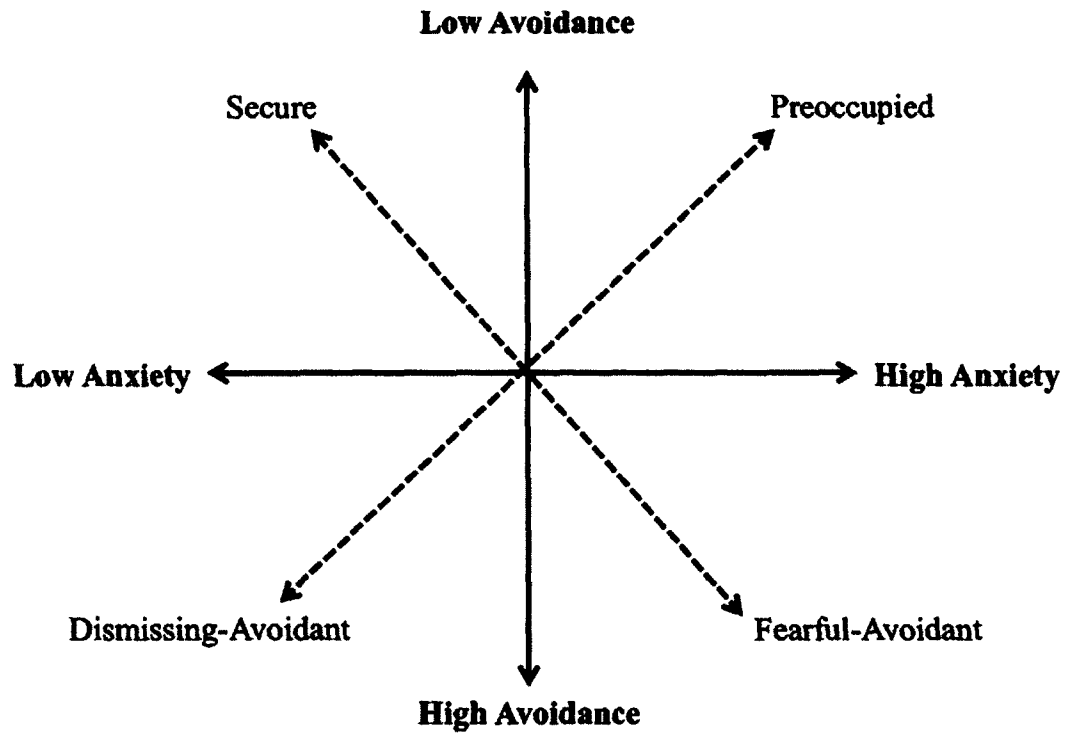
Nonetheless, categorical models can be useful provided that the numerous qualitative differences that likely distinguish between categories of attachment styles are acknowledged (Ross et al., 2006).

A consideration that must be made with dimensional measurement of attachment is that it is typically not feasible to measure all possibilities. Instead, a small selection of relevant constructs that best attends to the researchers' goals is measured. Measuring dimensions, though, best captures the reality that no one individual is completely described by one prototype, but is rather a combination of "styles" that describes his/her attachment within a particular relationship. As such, the present research measured emerging adults' parental attachments as a series of dimensions. Also, an exploratory question was posed which evaluated how dimensions of parental attachment, identity formation and mental health map onto each of Bartholomew and Horowitz's (1991) four attachment categories (contributing to the taxonomic debate by expanding upon the Ross et al., 2006, study).

Parental Attachment Bonds in Emerging Adulthood

Attachment theory in adulthood has primarily focused on romantic attachment bonds, as these have been hypothesized to represent a successful move from 'immature' childhood parental attachments to mature adult partnerships (Weiss, 1991). Without question, the development of romantic and peer bonds is important to healthy development. However, adulthood and successful maturation can no longer be gauged by events typically associated with parental separation (e.g., marriage; Arnett, 1998), and it is plausible that parental bonds may continue to affect development in emerging adulthood.

Indeed, attachment behaviour with parents is evident beyond childhood. Adult children will express desires to reunite with the attachment figures, are distressed by the inexplicable separations from these figures, and will mourn the loss of the attachment figure when a parent dies (Ainsworth, 1989). Parental attachment provides emerging adults with a secure base of support and promotes coping resources when the parent is emotionally available (Kenny & Rice, 1995). For example, securely attached emerging adults are more likely to turn to parental figures for support than insecurely attached individuals (Chen et al., 2004; Freeman & Brown, 2001; Gecas & Schwalbe, 1986; Rice, Fitzgerald, Whaley & Gibbs, 1995). An enduring connection with parents facilitates the processes of individuation and autonomy, and is indicative of successful maturation and greater parental attachment security (Ainsworth, 1989; Allen, Hauser, Bell & O'Connor, 1994; Grotevant & Cooper, 1986; Hill & Holmbeck, 1986; Kenny, 1994; Kenny & Rice, 1995; Kenny & Sirin, 2006; Moore, 1987).

The Influence of Attachment Security on Mental Health

The ability to make 'intimate emotional bonds with other individuals...is regarded as a principal feature of effective personality functioning and mental health' (Bowlby, 1988, p.121). In emerging adulthood, the parental emotional bond entails the successful combination of connectedness and individuation from parents, and can result in greater psychological well-being (Aquilino & Supple, 2001). As the attachment system is initially established in a distressing situation (i.e., infants' separation and reunion with their primary caregivers), internal working models are activated when individuals are stressed and/or anxious (Ainsworth et al., 1978; Bowlby, 1973). Some have argued that greater attachment security is only indicative of successful distress resolution when the

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stressor is relationship-based (e.g., Cohen & Wills, 1985); however, Mikulincer and Florian (1998) proposed that life stressors in general, and not just the threat of the dissolution of the attachment bond, can elicit attachment behaviours and associated coping/regulatory mechanisms. Increased attachment security is consistently predictive of increased mental health within and outside of relationships. As such, it appears that the internal working models are applicable to a range of mental health-relevant contexts.

Given the extent of the attachment-mental health literature, the following are only samples of the general finding that increased attachment security predicts better mental health. Increased attachment security is correlated with greater emotional well-being, in the form of increased emotional regulatory abilities (Cooper, Shaver & Collins, 1998; Robinson, DiTommaso, Lawson, Colwell, Campbell & Green, 2006), enhanced coping strategies (Mikulincer & Florian, 1998), and less negative affective reactions to distressful situations (Schmidt, Peterson & Bullinger, 2002; Wayment & Cordova, 2003). Attachment security is also correlated with increased psychological well-being (e.g., Diehl, Elnick, Bourbeau & Labouvie-Vief, 1998; Hammen, Burge, Daley, Davila, Paley & Rudolph, 1995; Hossack, 1997; Joplin, Nelson & Quick, 1999; Kafestsios & Sideridis, 2006; Schmidt et al., 2002), even after accounting for personality traits (e.g., neuroticism and extraversion; Mikulincer & Florian, 1998), and increased self-esteem (e.g., Luke, Maio & Carnelley, 2004). Although attachment security and mental health are strongly correlated, they are not redundant (Cozzarelli, Karafa, Collins & Tagler, 2003). It should also be noted that securely attached individuals are not immune to distressful experiences; rather, they readily acknowledge previous negative experiences but are

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equally cognizant of their coping abilities and resources (Robinson & DiTommaso, 2007).

Noller and Feeney (2002) argue that there has been a greater focus on the link between attachment insecurity and maladjustment; however, it is only the relation between anxious (i.e., fearful or preoccupied) attachments and poorer mental health that has been well-established (e.g., Lopez, Mitchell & Gormley, 2002). In contrast, the support for a relation between mental health and avoidant attachment (specifically, a dismissing attachment style) has remained inconsistent, and likely stems from the similarities in dismissing individuals' short-term coping strategies to those of securely attached individuals. Indeed, highly avoidant individuals often readily admit to and even pride themselves on their independent coping abilities. Through a series of qualitative interviews, though, it was found that their excessive self-reliance eventually disintegrates (Robinson & DiTommaso, 2007), and dismissing individuals begin to mimic the strategies of highly anxious individuals (Mikulincer & Florian, 1998). The literature contains findings that greater avoidance of intimacy or a dismissing style is related to increased well-being (Diehl et al., 1998; Kemp & Neimeyer, 1999), and in other studies, attachment-related avoidance is not a significant predictor of well-being (Caldwell, 1994; Robinson & DiTommaso, 2007). This characteristic of the attachment/mental health literature only reinforces the need to again consider qualitative differences instead of grouping together prototypes with matching self- or other- models (Kemp & Neimeyer, 1999). Thus, researchers need to use other dimensions to capture attachment and/or qualitative methods or other sources (e.g., interviews, reports from peers) to elucidate the link between avoidance and mental health.

Parental Attachment and Emerging Adult Mental Health

Parental attachment bonds in emerging adults have been minimally researched (Roberts & Bengston, 1993), although existing research also supports a link between greater parental attachment security and the mental health of emerging adults (e.g., Armsden & Greenberg, 1987; Goldstein & Heaven, 2000). Armsden and Greenberg (1987) found that securely attached adolescents were better adjusted psychologically, possessed greater self-esteem, and had more frequent and satisfactory communications with others. Secure individuals were also able to elicit support through enhanced communication skills, yet possessed sufficient self-confidence to adjust to changes on their own (Armsden & Greenberg, 1987). Further, compared to the insecurely attached, securely attached individuals were better able to cope with several age-specific developmental tasks (Scharfe & Cole, 2006) or stressful family situations (e.g., divorce/remarriage, Love & Murdock, 2004), and often reported receiving warmth and care from both parents (Gittleman, Klein, & Smider, 1998; Robinson & DiTommaso, 2007). Conversely, other studies have found links between attachment insecurity, less-than-optimal parent-child relationships and psychopathology. For example, emerging adults with high separation anxiety scores demonstrated increased symptoms of maladjustment (e.g., distress and social inhibition; Holmbeck & Leake, 1999). Berman and Sperling (1991) found that an overly close relationship with parents was predictive of high levels of depressive symptoms in young men leaving for college.

Although Roberts and Bengston (1993) argued that the effects of parental attachment on children's well-being diminished as children aged, the aforementioned studies illustrate that parental attachments remain important predictors of emerging

adults' responses to distress (i.e., the challenges presented in emerging adulthood) and subsequent mental health. Thus, there is support for a direct link between parental attachment and mental health: as parental attachment security increases, mental health will also increase. Furthermore, the existence of a relation between parental attachment and mental health indicates that it can be potentially mediated (Baron & Kenny, 1986). As argued earlier, one such mediator variable may be the identity formation processes that are definitive of emerging adulthood development. The relation between parental attachment and identity formation will now be discussed.

2.3   Parental Attachment and Identity Formation in Emerging Adulthood

Initially, it would seem that parental attachments in emerging adulthood are counterintuitive to the identity formation process. Emerging adulthood is purported to be a period of self-exploration and development of an autonomous identity from the primary caregivers. Adolescents undergo a period of deidealization and disidentification from parental figures. As they begin to realistically perceive their parents' values, opinions and beliefs, and separate themselves from the parents' negative traits, they are able to open themselves to the desirable traits of their parents and of others (Dashef, 1984). Overattachment to parents is problematic, because the adolescent regresses to earlier childhood roles that are known and safe (Blos, 1979). As such, the importance of physical and emotional separation from the family of origin on identity formation has been emphasized (Levinson, Darrow, Klein, Levinson & McKee, 1978).

As detachment and individuation from parents has been over-emphasized for emerging adults, the literature may not be an adequate reflection of the continued influence of parental attachments. The establishment of independence, autonomy and an

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identity from the primary caregivers requires both intrapersonal and interpersonal exploration (Benson, Harris & Rogers, 1992; Berman, Weems, Rodriguez & Zamora, 2006; Faber, Edwards, Bauer & Wetchler, 2003), and as the Strange Situation would predict, increased exploration is related to increased parental attachment security (Meeus, Oosterwegel & Vollebergh, 2002). In essence, securely attached emerging adults may use their parental attachment figures as secure bases from which to explore possible identities. Parental figures may also assist in identity formation by conflicting with and countering the beliefs of their children (Arnstein, 1980). Forming an autonomous identity means that to an extent, separation must take place, but secure emerging adults will be able to negotiate a balance between separation and connection with parents.

The parental attachment-identity literature has been inconsistent to date: some studies report positive or inverse relationships, while others report no association between the two constructs (Meeus, Oosterwegel & Vollebergh, 2002). Campbell, Adams and Dobson (1984) found that foreclosed (i.e., high commitment but low exploration) individuals were strongly bonded to and overly relied upon parents, resulting in reduced independence. Identity diffused (i.e., low commitment and exploration) individuals were the least emotionally attached but were also the least independent from parental figures.

Differential Maternal and Paternal Influences

The early infant-mother interactions are believed to be critical to the development of communication skills and an understanding of the environment (Svanberg, 1998). Infants also establish and discriminate paternal bonds with functions similar to maternal bonds (Lamb, 1981). As more fathers become involved in childcare, it is important to begin investigating any developmental differences afforded by maternal and paternal

relationships (Belsky, 1996). Parental attachment-identity research is confounded when there is a failure to examine parental differences (Samoulis, Layburn & Schiaffino, 2001), as each parent is hypothesized to serve different roles in their children's socialization (Benson et al., 1992) and may have unique influences on identity development. Although the examination of these potential differences has been called for, they have been infrequently examined (Faber et al., 2003). For example, Rice and colleagues (1995) examined parental attachment, separation-individuation and mental health in a longitudinal/cross-sectional design of undergraduate university students. They found that parental attachment security was relatively stable across time, and higher security was related to better adjustment and lower independence from parents with all cohorts. They concluded that parental attachment served similar functions even at later stages of university education. However, Rice et al.'s (1995) study was limited in its use of: a) a small, university-based sample (N=81); and b) a measure of adjustment that specifically focused on the interpersonal/social elements of the college experience (and not a measure of mental health in general). Moreover, their model lacked differentiation between maternal and paternal attachment bonds, instead assessing overall parental attachments.

Regarding the maternal attachment relationship, research on parental differences and identity has been inconsistent. Individuals classified as "identity-achieved" self-reported higher maternal attachment security and greater independence from both parents (Campbell et al., 1984). Faber and colleagues (2003) found that individuals with an "identity-diffused" status (i.e., low exploration and commitment) had less maternal attachment and that overall, maternal attachment was not predictive of identity formation.

Meeus et al.'s (2002) work on school identity formation found that higher maternal attachment security was important only for school identity exploration, whereas Samoulis et al. (2001) reported that higher identity commitment was best understood in the context of participants' higher maternal attachment security.

Interestingly, the paternal relationship has been underemphasized in the literature, yet what research is available indicates that paternal relationships have a better-established link to identity formation than maternal relationships. Faber and colleagues (2003) reported a positive correlation between paternal attachment and identity achievement, as did Meeus et al. (2002), who found strong associations between increased paternal communication and trust, and school identity commitment and exploration. Further, mental health outcomes such as life satisfaction were only associated with paternal attachment and identity achievement (Samoulis et al., 2001). Campbell et al. (1984) hypothesize that mothers offer emotional security while fathers offer encouragement to explore self-identities, and concluded that moderate maternal affection and encouraged independence from fathers best predicts higher identity exploration. Overall, it would appear that fathers have a more established role in children's identity formation, whereas the maternal role is less clear.

One potential explanation for parental differences on identity development is the distinct impacts of mothers and fathers on self- and other- concepts of emerging adults. Luke et al. (2004) found that fathers primarily influence their adult children through the development of their self-concepts and self-esteem, while mothers primarily impacted their children's other-views and humanity-esteem. Since the self-concept has stood out as a particularly strong mediator of the parental attachment-mental health relation, and

emerging adulthood is centered on exploration of possible selves and identity

achievement, it is possible that paternal figures may have a stronger influence on the

identity aspect of emerging adult development. Other research supports this hypothesis.

Rice, Cunningham and Young (1996) established that fathers provide children with a

bridge to their environments by contributing to children's social self-efficacy. Robinson

et al. (2006) found that fathers primarily impact outcomes that are ostensibly related to

self-models (emotional self-regulation). Self-acceptance has also been implicated in

young adults who had nurturing and available fathers (Fish & Biller, 1973). Conversely,

research implicates mothers as predictors of "other-oriented" emotional outcomes

(abilities such as emotional appraisal that would be practiced and refined presumably

through interpersonal interactions; Robinson et al., 2006). Adolescents with more secure

maternal attachments have higher emotional expressiveness and reported less negative-

affect parental interactions (Ducharme, Doyle & Markiewicz, 2002). Arbona and Power

(2003) found that maternal and paternal attachment each independently contributes to the

self-esteem of adolescents. Emerging adults' decision to explore new selves, evaluate the

possibilities, and commit to particular roles and paths is arguably an internal process that

involves self-concepts rather than other-concepts. Thus, the paternal relationship may be

of greater importance in understanding identity formation and subsequent mental health

than maternal bonds during emerging adulthood. This statement is not to suggest that

mothers have a minimal impact on identity formation, but rather that their role appears to

be difficult to ascertain.

Paternal influences may be more salient during emerging adulthood and identity

formation because the relevance of attachment variables may differ at different life

transitions (Scharfe & Cole, 2006). Scharfe and Cole determined that when internal working models of others were more salient (e.g., during marriage or parenthood, when the focus is on building a relationship with another person), then related moderators (parental separation) would be important to understand the change. Without question, having both a positive self- and other-concept is important for emerging adults to navigate the challenges and stresses of this transition. Yet no differences may be found, as mothers may still be viewed as the primary caregivers in this age group (Robinson & DiTommaso, 2007). For example, Kenny and Sirin (2006) investigated perceptions of the quality of parental attachments with 81 emerging adults and their maternal figures. They found that sensitive and consistently available maternal caregiving (as perceived by the emerging adult) was predictive of lower depressive symptoms in the emerging adult, and that this relation was mediated by more positive models of the self. The relation between internal working models, quality parental relationships and well-being has received little attention according to Kenny and Sirin (2006), but they concluded that perhaps the strongest impact of current parental attachments on emerging adults is through their influence on the working models. This conclusion is logical given that the emerging adult is attempting to establish his/her identity and must navigate stressors that challenge and threaten its integrity (Kenny & Rice, 1995). The results of Kenny and Sirin's work – that maternal attachment influences well-being through self-models, not other-models – contradict previously discussed findings but demonstrate the importance of examining possible differences between mothers and fathers on emerging adults' identity and subsequent mental health.

Overall, there is support for a relation between parental attachment and identity formation in emerging adults: the more secure the parental attachment relationship, the more achieved an emerging adult's identity will be. The present research extends previous work by examining any differences between maternal and paternal attachment and their relation to emerging adults' identity formation. The proposed link between identity formation and mental health will now be discussed.

2.4   Identity Formation and Mental Health in Emerging Adulthood

As previously noted, healthy identity formation entails some separation from the parental attachment figures in order for an individual to form an autonomous identity and become an adult, yet during any time of disconnecting from an attachment figure, there is a risk for destabilization (Dashef, 1984). For secure emerging adults, it is plausible that there is less of a risk of decreased mental health because: a) the security of the parent-emerging adult attachment relationship means that parents are comfortable with letting children challenge parents' own identities and belief systems; and b) children are sufficiently secure to know that their parents still love them and encourage their independence, despite any conflicts that may arise. Conversely, this period of destabilization may lead to poorer mental health if emerging adults are unable to use their parental figures as secure bases. The destabilization involved in identity formation may influence emerging adults' mental health; that is, the processes of negotiating and achieving an identity in emerging adulthood may mediate the parental attachment relationships and its link to mental health.

It appears that a significant portion of the identity-mental health literature has focused on specific identities (e.g., gender, ethnic, sexual) and the effects on mental

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health. Nonetheless, there has been support for identity formation in emerging adulthood and its effects on mental health. Erikson (1950) noted the importance of resolving the identity formation crisis to the psychological health of the adolescent. Empirical work in recent years has demonstrated that individuals with more achieved identities experience better mental health than individuals with disintegrated and unformed identities (e.g., Frank, Pirsch & Wright, 1990; Helson & Srivastava, 2001; Offer, Kaiz, Howard & Bennett, 1998; Wautier & Blume, 2004). For example, Luyckx, Goossen, Soenens, and Beyers (2006) found that a more achieved identity was related to lower levels of depression and higher self-esteem in a sample of 565 emerging adults. Goede, Spruijt, Iedema, and Meeus (1999) examined the effects of identity formation on the mental health of 1222 adolescents and emerging adults (15 to 24 years of age) and found that a more achieved identity (measured with regards to relationships and occupations) was related to higher levels of psychological well-being and lower levels of stress and depression. Ramgoon, Bachoo, Patel and Paruk (2006) found that ego identity achievement was related to and served as a protective factor against suicidal tendencies in South African minorities. McLewin and Muller (2006) found that more positive models of the self were significant predictors of lower levels of reported psychopathology in a sample of late adolescents/emerging adults with or without a history of abuse. Using a sample of psychiatric and non-psychiatric participants, Osmun (1995) found that the participants with better achieved identities also displayed normative scores on the MMPI-2, whereas individuals with diffused or undefined identity statuses consistently reported clinically elevated test scores. Although this literature demonstrates a relation between a better achieved identity and increased mental health, the aforementioned studies have

limited themselves to highly specific populations: males (Frank et al., 1990), females (Luyckx et al., 2006), clinical samples (McLewin & Muller, 2006) and ethnicities (Ramgoon et al., 2006). To further theory, the present research aimed to improve upon previous identity-mental health work by sampling from a diverse and more representative population than previous studies. Nonetheless, the literature supports a direct relation between identity status and mental health, and the proposed mediational model (Figure 2) warrants evaluation.

2.5 Methodological Considerations

In the previous sections, the rationale for the proposed model was established. In addition, there are several important theoretical and methodological considerations for this model: 1) the conceptualization of mental health; 2) the use of a more representative sample that includes a range of individuals in school and work roles; and 3) the role of gender as a moderator. Attending to these aspects further expands upon previous work on attachment, identity, and mental health in emerging adulthood.

1. <u>Conceptualizing Mental Health</u>. It is common in Western/industrialized cultures to conceptualize mental health as merely the absence of mental illness: as health increases, distress must be decreasing as a result (and vice versa). More recent mental health research, however, proposes that one-dimensional models do not accurately capture the experience of mental health. For example, Schulenberg and Zarrett (2006) recently investigated a range of mental health outcomes in emerging adults (e.g., depression, anxiety, happiness). If a one-dimensional mental health model were used to interpret their findings, the results would likely appear contradictory: both levels of well-being and distress increased as the emerging adults aged. These results are logical,

though, if they are interpreted within a two-dimensional model of mental health. That is,

individuals can be experiencing well-being in one area but are maladjusted in another

area. Had the Schulenberg and Zarrett (2006) study only measured distress as

representative of mental health, the conclusion would have been drawn that increasing

age in emerging adulthood is associated with negative experiences and symptomatology.

Restricting mental health research to measurement of only one dimension (be it distress

or well-being) imposes a limit on the depth and the accuracy of the results and

subsequent interpretation by only considering individuals with either 'more' or 'less'

mental health. A two-dimensional model of mental health, which considers one level of

distress and a related (but distinct) level of well-being, helps to capture many individuals

who exhibit moderate levels of both dimensions. It is then logical that each dimension

would correlate with, and be predicted by, different constructs (Bradburn, 1969), and

research has demonstrated different patterns of association for each dimension (Beiser,

1974; Robinson & DiTommaso, 2007).

There are important theoretical and clinical implications of such findings. The

absence of factors promoting one dimension does not automatically guarantee that the

other dimension will be promoted (i.e., simply because an individual is not depressed

does not mean that they are satisfied with life and are happy; Keyes, 2002), which can

better inform professionals who want to increase positive outcomes and reduce negative

ones. Further, individuals with moderate levels of well-being and maladjustment can

receive medical/psychological intervention that may benefit them, but through a one-

dimensional model, this would not have been the case (Keyes, 2002; Keyes & Waterman,

2003). Finally, a two-dimensional model does not undermine the positive attributes and potential of individuals that can be used to assist the healing process (Vaillant, 2003).

The vast majority of research cited in the previous section has fallen into using a one-dimensional model, and the inclusion of a two-dimensional mental health outcome measure will expand upon past findings. There have been some increased efforts to focus on 'positive psychology' and include more well-being measures in research; however, most attempts have simply adapted existing pathology models (Lent, 2004). In addition, other studies have only measured well-being to the exclusion of maladjustment, which is similarly problematic because the concept of mental health as multidimensional is lost (Ryan & Deci, 2001), dynamic (Headey, Kelley, & Wearing, 1993; Diener, 2000; Keyes, Shmotkin & Ryff, 2002), and balanced between well-being and maladjustment. Thus, to increase precision in mental health description, measurement and treatment, it is important to consider both dimensions of well-being and maladjustment (Veit & Ware, 1983), and remain cognizant that comprehensive conceptualization of mental health is an interplay between the two dimensions.

2. Beyond university student samples. In psychological research, it is not uncommon to cite the use of a university/college student sample as a limitation (and many of the studies presented in the literature review were illustrative of this restriction). It is thus vital that the proposed model was evaluated using a varied sample that is more representative of the diverse emerging adult experiences (i.e., including individuals enrolled in post-secondary education and/or employed, both in full-time and part-time statuses).

As previously noted, adulthood is not determined by the type of path chosen by

emerging adults (i.e., attending school versus working), but rather, the level of commitment and goal-orientation to their chosen path (i.e., full-time versus part-time/casual school/work; Aseltine & Gore, 2005) is more indicative of mental health differences. Research using both quantitative and qualitative methodologies has found that emerging adults in full-time school and/or work report lower levels of depression and a higher quality of life than their part-time or unemployed counterparts (Aseltine & Gore, 2005). These findings likely reflect the greater degree of identity achievement required by individuals in full-time school/work to commit to reaching their goals (as opposed to individuals who "dabble" in several arenas; Arnett, 2004). It was predicted that the use of a representative sample will not illustrate differences between different groups (i.e., university students versus employed community residents), but rather expose differences within these groups by comparing full-time versus part-time commitments to the chosen path. The evaluation of the proposed mediational model with a more representative sample was expected to offer a more clear picture of the roles of parental attachment and identity formation in emerging adults' mental health.

3. Gender as moderator. Consistent evidence for gender differences with respect to attachment or identity is absent from the literature. Attachment theory proposes that the bond between child and attachment figure is of equal importance for both men and women (Bowlby, 1988). There is research that indicates the importance of parental attachment to identity and adjustment outcomes regardless of the child's gender (e.g., Armsden & Greenberg, 1987; Cooper, Shaver & Collins, 1998; Rice & Cummins, 1996), but other studies have found gender differences (e.g., Hoffman & Weiss, 1987; Kenny & Donaldson, 1991; Rice, Cunningham & Young, 1997). For example, parental attachment

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and identity formation processes were found to be more important to female emerging adults' mental health than males (Schultheiss & Blustein, 1994a). This difference was proposed to be due in part to differing socialization processes; males are socialized to be more concerned with individual needs, whereas females are socialized to be more concerned with others' needs (which would not be as conducive to identity formation as the males' self-focus; Schultheiss & Blustein, 1994a). Further, some research has shown no gender differences in emerging adult mental health (e.g., Galambos et al., 2006; Leondari & Kiosseoglou, 2002; Wilkinson & Walford, 2001), and other studies have found no gender differences in emerging adults' identity formation (Friedman, 2003; Montgomery, 2005). As there are some studies that indicate gender differences, it would thus be prudent to test for these differences as a preliminary analysis prior to evaluating the proposed mediational model.

2.6   Preliminary Research

A fourth methodological consideration is the use of mixed or multiple methods to examine a research question. The use of a mixed methods approach to study emerging adults' mental health was evaluated in a pilot study prior to the present research (Robinson & DiTommaso, 2007). In the first study (fall 2005), 213 undergraduate psychology students from the University of New Brunswick, Saint John completed a questionnaire package containing self-report measures of general adult attachment style, past parental involvement, and indices of well-being and maladjustment (e.g., psychological well-being, loneliness, stress, depression and anxiety). Then, a second study (winter 2006) was conducted, in which 7 participants were interviewed using a semi-structured interview schedule and analyzed using interpretative phenomenological

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analysis (focusing on participants' interpretations of a particular phenomenon or experience, and how they make sense of it). The results from the two studies provided support to some of the directions taken for the present research:

1. Quantitative analyses validated the utility of examining mental health as a holistic concept comprised of both well-being and maladjustment. Canonical correlations revealed a primary function, in which all of the well-being and maladjustment variables were significantly related ($R = .67$).

2. Secondly, the importance of examining parents separately (rather than asking questions about "parents" in general) was confirmed. Maternal caregiving predicted more positive relations with others, higher self-acceptance and less social loneliness, and paternal caregiving was predictive of more environmental mastery (i.e., sense of competence of one's environment) and less experience of stress.

3. Qualitative research to follow up with quantitative results revealed important nuances not captured through the questionnaires. For example, although secure attachment was positively correlated with mental health, securely attached emerging adults indicated through interviews that they do experience periods of maladjustment. However, they perceive and cope with them differently than insecurely attached emerging adults. Further, weaker or non-existent parental caregiving relationships were related to poorer self-acceptance and more problematic emotional expression.

In the present research, the first component in the mixed-methods approach was a quantitative study that permitted an examination of the mediational model of interest

(Braud & Anderson, 1998; Goldstein, 2006). Then, to examine possible processes underlying the quantitative findings (Leech & Onweugbuzie, 2007), as well as enhance the meaning of the "numbers" (Goldstein, 2006), a qualitative follow-up study was undertaken with a sub-sample of the participants. Together the two methods create a more holistic picture of the parental and identity influences on emerging adults' mental health.

2.7   Summary of the Literature Review

The achievement of a coherent and integrated identity is a key developmental task for adolescents to resolve (Erikson, 1960). However, contemporary research (e.g., Arnett, 1998) argues that this process extends into the twenties as a transitional period between adolescence and adulthood known as *emerging adulthood*. In this period, emerging adults display an extended reliance on their parents for support while they explore opportunities for education, employment, relationships, etc. Eventually, emerging adults will: a) assume full responsibility for their actions; and b) make decisions and become financially independent from their parents (Arnett, 2001) in order to become adults. Emerging adulthood is a period marked by immense changes and exploration, and thus can be a time of improved well-being (Schulenberg & Zarrett, 2006) and/or increased prevalence of mental disorders (Health Canada, 2002). With these factors in mind, the present research sought to examine a model in which parental attachment relationships and identity formation were explored as potential predictors of emerging adults' mental health. Further, identity formation was proposed to mediate the direct relation between parental attachment and mental health with emerging adults.

The preceding literature review has thus provided support for the theoretical links of this model. In summary, the present research will contribute to the existing literature by:

- Returning to an examination of parental influences on emerging adult outcomes (as opposed to peer and romantic relationships). Although some argue that parental attachments lose relevancy as children move into adulthood (e.g., Roberts & Bengston, 1993), there is a significant body of research that supports the continued importance of parental attachment security to emerging adults' adaptive response to distress and increased mental health (e.g., Armsden & Greenberg, 1987; Goldstein & Heaven, 2000; Scharfe & Cole, 2006). Further, the importance of parental attachments to emerging adults' search for and achievement of an identity was also supported, such that emerging adults may continue to use their parental attachment figures as secure bases (e.g., Meeus, Oosterwegel & Vollebergh, 2002), from which to explore and evaluate roles and identities.

- Examining the differential influences of paternal and maternal attachment relationships on identity formation and subsequent mental health. As previous research has varied in whether mothers (e.g., Samoulis et al., 2001) or fathers (e.g., Luke et al., 2004) have a more influential role in emerging adults' identity formation, the present research also incorporated an examination of differential parental influences on identity formation.

- Evaluating the role of identity formation processes on emerging adults' mental health. There is also support for a better achieved identity as a predictor of

increased mental health (Luyckx et al., 2006), although the present research

sought to expand theory by looking beyond highly specific identities (e.g., Frank

et al., 1990; Luyckx et al., 2006; McLewin & Muller, 2006).

- Using a mental health outcome measure that assesses both well-being and

  maladjustment. Although recent research has attempted to incorporate more

  positive psychological outcomes to mitigate against the measurement of only

  maladjustment, the present research supports the need for holistic mental health

  research that explores both well-being and maladjustment outcomes (e.g., Lent,

  2004; Veit & Ware, 1983).

- Incorporating other methodological considerations. Areas in which previous

  research could be improved upon included the necessity of using a more

  representative sample, examining potential gender differences, and using both

  quantitative and qualitative research methods.

Thus, the present research integrates theories of parental attachment and identity

formation in an emerging adult sample, with the aim of generating a comprehensive

model of emerging adults' mental health. Based on the preceding literature review and

aims of the present research, the following research hypotheses (Table 1) were tested.

Table 1

Hypotheses for Study 1 (Quantitative Study)

#	Hypotheses: Study 1
1a/ 1b	Most post-secondary participants will live at home with their parental figures. Most employed individuals will no longer live in the family home with their parental figures.
2a	Age will be directly correlated with identity achievement, and inversely correlated with identity moratorium, diffusion and foreclosure.
2b	Age will be inversely correlated with the amount of financial support provided by parents.
2c	Age will be directly correlated with better mental health (greater subjective happiness and self-acceptance, and less general emotional and behavioural distress).
3	Post-secondary students will require more financial support from parental figures than employed individuals.
4	There will be no difference between employed individuals and post-secondary participants on the parental attachment, identity formation, and mental health variables.
5a	Greater paternal attachment will predict better mental health.
5b	Greater maternal attachment will predict better mental health.
6a	Greater paternal attachment and involvement will predict greater identity achievement. There will be an inverse relation between paternal attachment and identity statuses of moratorium, diffusion and foreclosure.
6b	Greater maternal attachment and involvement will predict greater identity achievement.
6c	The strength of association between paternal variables and identity will be significantly stronger than those between maternal variables and identity.
7	Greater identity achievement, and lower identity moratorium, diffusion and foreclosure statuses, will predict better mental health (greater subjective happiness and self-acceptance, and lower general emotional and behavioural distress).
8	Identity formation (achievement) will mediate the relation between the parental attachment variables and mental health.
EQ 1	Are there significant differences between the four general attachment styles of secure, preoccupied, fearful and dismissing attachment (Bartholomew & Horowitz, 1991) on parental attachment, identity formation, and mental health?

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CHAPTER 3

Method – Quantitative Study

3.1   Participants

One methodological consideration made in the present research was the initiative to incorporate a wider range of emerging adulthood experiences (e.g., education, employment) beyond post-secondary institutions. The present sample was thus composed of undergraduate university students enrolled in psychology courses at the University of New Brunswick (Saint John), and members of the Greater Saint John area community.

As a process of exploration and change, it is difficult to define age boundaries for emerging adulthood. As discussed in Chapter 1, Arnett (2000) often defines emerging adulthood as between and including the years of 18 to 25, but his research has varied with participant groups ranging from 20 and 29 years (Arnett, 2001) and 18 to 28 years (Arnett, 2003). Clark (2007) examined 'young adults in transition' between the ages of 18 to 34 years, to ensure that the range of emerging adult experiences was sampled. For the purposes of the present research, data was analyzed for individuals between the ages of 18 to 34 years. Upon completion of the data collection and conditioning (discussed in Chapter 4), 23 participants over the age of 34 were excluded from analyses ($N_{post-sec}$ = 8, N_{comm} = 15). The present sample for the quantitative study was composed of 317 emerging adults[2] (240 females, 77 males), between the ages of 18.00 years and 34.74 years (M_{age} = 22.31 years, SD = 4.52).

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[2] Using power calculations (Cohen, Cohen, Aiken & West, 2002) with an alpha of α = .05, k = 15 predictors, to detect small effect sizes (R^2 = .10) with a minimum of 80% power, a sample size of approximately N = 185 was needed.

3.2   Measures

A demographics measure and a language comprehension test were always

presented first to the participants. All remaining measures were then presented in a

counter-balanced manner to control for order effects (which were not found in the data

set). All of the measures are found in Appendices A through K.

Demographics Questionnaire & Language Screening

Participants were first asked general questions that assessed age, gender, identity

of parental figures, current and past perceptions of their parental relationships, and place

of living (Appendix A).

English Reading Comprehension Test (ERCT; DiTommaso, 2003). This 10-item

measure (Appendix B) quickly assessed participants' level of English language

comprehension (important in a city with a growing immigrant or foreign student

population). Participants scoring lower than 60% correct were removed from the final

data set ($N = 4$). Although there have been no established psychometrics for this

instrument, the cut-off criteria has been determined through repeated use. On average,

Canadian students achieve a score of 80%, while international students typically score

60%. The intent of the measure was not to reduce the number of international

participants, but to ensure sufficient English language comprehension to complete the

questionnaire package. Previous uses of the ERCT-R have typically led to samples that

include a mixture of international and Canadian students who have demonstrated

sufficient comprehension.

Predictor Variables

Measures of Parental Attachment Relationship

In the present study, two components of emerging adults' current parental relationships were studied in particular: the emotional and cognitive attachment bond between parent and child, and the instrumental involvement and support provided by parents to their children.

Parental Attachment Questionnaire (PAQ; Kenny, 1987). The PAQ is a 55-item instrument that assessed young adults' feelings and experiences in their relationships with their parental figures. The PAQ best reflects Ainsworth et al.'s (1978) conceptualization of attachment as an affective bond that provides a secure base for exploration, support, and development of autonomy (Kenny & Donaldson, 1991). Previous studies have found the PAQ to be inversely correlated with psychological symptoms (Kenny & Donaldson, 1991; Kenny & Sirin, 2006), fear of parental conflict, overinvolvement, and separation (Kenny & Donaldson, 1991), and positively correlated with self-worth and esteem (Kenny & Donaldson, 1991; Kenny & Sirin, 2006). The items are rated on a 5-point scale [1 = *not at all*; 2 = *somewhat*; 3 = *a moderate amount*; 4 = *quite a bit*; 5 = *very much*]. The PAQ was originally developed to assess overall parental attachment (either both parents together or the parent to whom the participant felt the closest). In the present study, mothers (PAQ-M; Appendix C) and fathers (PAQ-F; Appendix D) were assessed separately.

The PAQ consists of three subscales: Parents as Facilitators of Independence (e.g., "*my mother/father encourages me to make my own decisions*"), Affective Quality of the Relationship (e.g., "*my mother/father is someone I can count on to provide emotional*

support when I feel troubled"), and Parents as Source of Support (e.g., "*my mother/father is available to give me advice or guidance when I want it.*"). Good internal reliability has been established for all three subscales (α = .88 to .96; Kenny, 1987; Kenny & Sirin, 2006). In the present study, internal reliability was also good (α = .78 - .90 for PAQ-M; α = .82 - .91 for PAQ-F). However, a correlation analysis within each parent's three subscale scores indicated a high degree of redundancy (ranging from r = .30 – r = .73 for PAQ-M; r = .36 – r = .77 for PAQ-F). To correct for this redundancy, some previous research has opted for a total parental attachment score due to the statistical and conceptual associations between these scales, for adolescent (e.g., Shochet, Homel, Cockshaw & Montgomery, 2008) and emerging adult populations (e.g., Frey, Beesley & Miller, 2006; Kenny & Sirin, 2006). This approach is favoured as it maintains all of the variance of the three subscales. The internal reliability of the total scores (which can range from 55 to 275) in the present study was 0.94 for both the PAQ-M and the PAQ-F (matching Kenny & Sirin, 2006).

Father Involvement Scale (FIS-A; Finley & Schwartz, 2004) and Mother Involvement Scale (MIS-A; Finley, Mira, & Schwartz, 2008; Robinson et al., 2006). Originally, the FIS-A (Appendix E) was created to measure father involvement in a manner that emphasized quality of the parent-child interaction over quantity of time spent together (a confounding factor, with many fathers working longer hours to support their families). Participants are oriented in the instructions to consider their retrospective perceptions of paternal involvement with 20 items that touch upon numerous roles (e.g., caregiving, giving advice). Robinson et al. (2006) modified the wording of the FIS-A to

guide participants in reflecting upon perceived maternal involvement (MIS-A; Appendix

F), with similar directions and scoring as found with the FIS-A.

In the present study, the instructions were altered to orient participants towards

their current paternal and maternal relationships. On each measure, the items are rated on

a 5-point scale (*1* = *never involved, 5* = *always involved*), with higher total scores

indicating greater reported father or mother involvement. Finley and Schwartz (2004)

also provide coding for three subscales [Expressive Involvement (e.g., caregiving,

emotional development), Instrumental Involvement (e.g., discipline, school or

homework), and Mentoring/Advising Involvement (e.g., giving advice, intellectual

development)], but their factor analysis revealed a complex structure with the

Mentoring/Advising Involvement subscale (i.e., the items that loaded on the first two

subscales were made into a third subscale). It should be noted that the present study only

made use of the Total Involvement scores (ranging from 20 to 100), for which excellent

internal reliability coefficients have been reported (α = .97, Finley & Schwartz, 2004; α

= .91 - .96, Robinson et al., 2006) in the past. In the present study, internal reliability of

both the FIS-A and the MIS-A were similarly high (α = .95, FIS-A; α = .94, MIS-A). For

both genders, correlations of all four reported fathering indices to young adult subjective

well-being were significantly and moderately positive for individuals from intact families

(Finley & Schwartz, 2007), but Robinson and DiTommaso (2007) found that: a) greater

father involvement predicted more environmental mastery and less stress; and b) greater

maternal involvement predicted more social loneliness.

Measure of Identity Formation

Extended Objective Measure of Ego-Identity Status - II (EOMEIS-II; Bennion &
Adams, 1986). The EOMEIS-II (Appendix G) assesses an individual's scores on 4
continuous dimensions of Marcia's identity statuses, as well as provides an individual's
identity category. In using this measure, previous studies have found links between
identity achievement and perceived encouragement for independence (Willemson &
Waterman, 1991), and between unachieved identity states and family enmeshment
(Perosa, Perosa & Tam, 1996) and greater insecurity (Frank et al., 1990).

The 64 items of the EOMEIS-II are rated on a 6-point scale (1 = *strongly agree;* 6
= *strongly disagree*) and assess an individual's status via ideological (e.g., politics,
religion and values/beliefs) and interpersonal (e.g., friendships, family, dating/romantic
relationships) domains. As the interest in the present study was overall assessment of the
four identity dimensions, the separate ideological and interpersonal scores were not
calculated. Examples of items from each of the four dimensions are: *"I'm not really
interested in finding the right job, any job will do. I just seem to flow with what is
available"* (Diffusion); *"I've never really questioned my religion. If it's right for my
parents it's right for me"* (Foreclosure); *"While I don't have one recreational activity I'm
really committed to, I'm experiencing numerous leisure outlets to identify one I can truly
enjoy"* (Moratorium); and, *"There are many reasons for friendship, but I choose my
close friends on the basis of certain values and similarities that I've personally decided
on"* (Achievement). Scores for the four scales range from 16 to 96, and moderate
reliability has been established through the extensive use of the EOMEIS-II and its'
extended version in the literature (with internal reliability coefficients for the four scales
ranging from α = .51 - .90; Adams, Bennion & Huh, 1989; Adams, Berzonsky &

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Keating, 2006; Adams & Montemayor, 1987; Adams, Shea & Fitch, 1979; Blustein & Palladino, 1991; Markstrom-Adams, Ascione, Braegger & Adams, 1993; Schultheiss & Blustein, 1994b). For the present study, internal reliability for the four scales ranged from $\alpha = .68 - .87$.

Criterion Variable

Measures of Mental Health

To provide a multidimensional assessment of participants' mental health, two measures were used to measure well-being, and another measure for distress – all of them selected to together provide a sense of emotional, cognitive and behavioural components of mental health.

The Scales of Psychological Well-Being – Self-Acceptance (SPWB-SA; Ryff, 1989) is an 84-item instrument with 6 subscales. However, only the 9-item Self-Acceptance scale (Appendix H) was used in the present research to provide an index of self-esteem and regard (e.g., *"In general, I feel confident and positive about myself"*). The scale is correlated with greater father and mother involvement, and inversely related to attachment related anxiety (Robinson & DiTommaso, 2007). The scale has been also positively correlated with self-esteem (Ryff, 1989), life satisfaction and happiness (Kafka & Kozma, 2002). Participants rated items using a 6-point Likert scale (1 = *strongly disagree*; 6 = *strongly agree*) in reference to how accurate the statements describe them. Four items are reverse-coded, and higher total scores indicate a more positive self-attitude and acceptance of positive and negative qualities of their personality (scores ranging from 9 to 54). Excellent internal reliability has been established ($\alpha = .91$; Ryff, 1989), and was demonstrated in the present study ($\alpha = .89$).

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The Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999) is a measure of trait happiness (rather than current mood of the participant). The scale consists of four items, each of which is rated on a scale from 1 to 7. The SHS (Appendix I) converges with other happiness measures and with measures of optimism, positive/negative affect, depression and self-esteem (Lyubomirsky & Lepper, 1999). To respond to two items, participants must rate their absolute happiness and their happiness relative to peers. The other two items are descriptions of happy and unhappy individuals to which participants compare themselves. A sample item is: "*Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you?* " The four scores are added together and averaged to create an overall score from 1 to 7, with higher scores indicating higher levels of happiness. Good internal reliability has been demonstrated in 14 studies of college and community samples (α = .79 - .94), and in the present research (α = .86). As well, good test-retest reliability has also been demonstrated in past studies (with an average α = .79 across 5 studies; Lyubomirsky & Lepper, 1999). Lyubomirsky (2001) reported that the SHS demonstrated convergent validity with well-known measures of well-being (e.g., the Satisfaction with Life Scale, Diener, Emmons, Larson & Griffin, 1985; the Affect-Balance Scale, Bradburn, 1969) and discriminant validity with demographic variables.

Personality Assessment Screener (PAS; Morey, 1997). The PAS (Appendix J) is a 22-item instrument that assesses a broad range of potential emotional and behavioural distress of clinical significance in community and college student samples (aged 18 and over). This range encompasses 10 subscales (Negative Affect, Acting Out, Health

Problems, Psychotic Features, Social Withdrawal, Hostile Control, Suicidal Thinking, Alienation, Alcohol Problem and Anger Control). However, the small number of items per scale does not provide a reliable assessment of each facet. Indeed, Morey (1997) suggested that the subscale scores be used only to direct further efforts at clinical assessment with an individual, and not as a means of prediction. Thus, the total PAS score was used to provide a broad index of distress. In past research, the PAS total score has positively correlated with neuroticism, depression, state and trait anxiety, suicidal ideation, psychopathy and physical symptoms, and inversely correlated with perceived social support from friends and family, extraversion, conscientiousness and agreeableness (Morey, 1997). Further, data demonstrates that high levels of self-reported stress are not significantly associated with elevated scores ($r = .03$), indicating that the PAS total score is an assessment of trait emotional and behavioural distress (Morey, 1997).

Items are rated on a 4-point scale (0 = *False, not at all true* to 3 = *Very true*), with reverse-coding of certain items. Reliability and validity studies using the total PAS score (which can range from 0 to 88) have illustrated its' excellent psychometric properties. Internal consistency is acceptable ($\alpha = .72$ for college, $\alpha = .75$ for community samples), with similar results found in the present work ($\alpha = .72$). Also, test-retest reliability has been demonstrated in past research to be good ($\alpha = .83$ for college, $\alpha = .88$ for community).

Additional Measures – Exploratory Question

Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991). The RQ (Appendix K) consists of four paragraphs describing different attachment types. The paragraphs are rated on a 7-point scale, with a forced choice rating of the paragraph that

best describes the person. Excerpts from these descriptive paragraphs are: Paragraph 1 (secure – positive self, positive other): "*It is easy for me to become emotionally close to others*"; Paragraph 2 (fearful – negative self, negative other): "*I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them*"; Paragraph 3 (preoccupied – negative self, positive other): "*I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like*"; and Paragraph 4 (dismissing – positive self, negative other): "*I am comfortable without close emotional relationships*". Ross et al. (2006) established differences between the four categories: secure attachment was related to lower insecurity and greater self-confidence; fearful attachment was related to greater insecurity and lower self-confidence; preoccupied attachment was related to greater insecurity and attachment-related anxiety; and dismissing attachment was related to lower insecurity and self-confidence, and higher independence.

Its typical use is to provide a continuous rating profile of an individual's attachment patterns, but reliability analyses have revealed poor test-retest reliabilities (e.g., .39 - .71; Ross et al., 2006). The RQ can also be used to determine the attachment category most definitive of participants by looking to participants' rating of question 5 (where participants' are asked to rate the paragraph that they feel best describes their overall relational style). Another method focuses on underlying dimensions of attachment-related anxiety and avoidance and uses the linear combinations[3] of the four

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[3] Anxiety was calculated as: (Fearful + Preoccupied) – (Secure + Dismissing), while Avoidance was calculated as: (Secure + Preoccupied) – (Fearful + Dismissing) (Griffin & Bartholomew, 1994). To remove negative signs, scores were recentered by adding 20 to each score. This created a possible range of 6 – 34 for both scores.

paragraph ratings (Griffin & Bartholomew, 1994). This was the method used in the present study to yield two overall scores of relationship anxiety and avoidance.

3.3   Procedure

Participants were recruited from two populations: university students and community residents. As each population presented slight differences in access and available inducements to participate, the procedure was modified for each group.

University students. This sample consisted of students enrolled in Introductory Psychology and upper-level psychology classes at the University of New Brunswick, Saint John campus. During the second week of classes in the fall 2007 term, students were invited to participate by in-class announcements made by the primary investigator (with the permission of the course instructor) and poster advertisements on campus. Both announcements provided participants with a brief overview of the study's purpose and the role of the participants. Interested individuals were invited to register on bulletin board sign-up sheets (requesting participants' names and email addresses) for one of several group sessions (allowing up to 50 participants per session). These bulletin board posters also re-iterated the study's purpose and provided contact information for the primary investigator, dissertation supervisor, and the university's Research Ethics Board chair. A total of 257 participants were recruited via this method.

At each session, the primary investigator began with a discussion of the information provided on the informed consent sheet (Appendix L): the nature of the study; the amount of time required to participate; the inducements to participate (one bonus mark towards their psychology course grade; and entry into a random draw for one of three coffee gift certificates valued at $50, $20, and $10). Discussion of informed

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consent also emphasized participants' right to withdraw from participation at any time without penalty (e.g., if they were made uncomfortable by the questions), anonymity, and confidentiality of their responses.

At this time, another informed consent form (Appendix M) was discussed. This form asked participants to provide an email address and/or phone number, should they be interested in participating in the future qualitative study. It was then emphasized that consent to be contacted for the qualitative study did not influence their participation in the quantitative study, nor did it oblige them to participate in the future should they be contacted.

After reading and signing the consent form(s), the participants then completed the questionnaire package. Once their participation was completed, participants received copies of the informed consent forms and a debriefing form (which provided theory/references for the study and relevant contact information for the primary investigator, the dissertation supervisor, the chair of the Research Ethics Board of UNB Saint John, and the campus counseling centre should questions or concerns arise; Appendix N).

Community members. Several methods of advertisement were used to recruit emerging adults from the community. Advertisements were placed through local community newspapers, a local cable TV station, on-line community classifieds and a social networking site targeting the Greater Saint John Area. As well, posters were placed in public places (e.g., community bulletin boards found in shopping centres, grocery stores, libraries and fitness clubs). The participants who responded via these methods would provide a mailing address. They then received the questionnaire package (with a

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self-addressed stamped envelope to return the package), as well as a copy of the informed

consent forms. Participants were instructed to seal the informed consent(s) in a separate

envelope provided (to ensure anonymity and confidentiality), and then place this

envelope in the larger stamped envelope to return with the questionnaire. Reminder

letters for unreturned packages were sent out 3 weeks after the initial mailing of the

questionnaire package. A total of $n = 43$ community members were recruited by these

advertisements.

Participants were also recruited via workplaces in the city. Human resources

managers at customer service centres in the city were contacted for their assistance, and

were provided with formal letters introducing the study's purpose, a sample questionnaire

package, and the offer to present general findings from the study to their human resources

department if interested. After receiving management approval, posters advertising the

study were placed inside the offices, and/or questionnaires were made available directly

in the workplace (with one box containing the blank questionnaire packages for interested

individuals, and a second, sealed box for the return of completed packages). The posters

also stressed the confidentiality and anonymity of the study (i.e., management would not

have access to individual responses provided). If applicable, e-mail reminder letters to

participate or return packages were sent on the primary investigator's behalf by

management to the employees. A total of $n = 65$ participants were recruited from 8

contact centres.

The informed consent (Appendix O) differed from the university sample:

- University-relevant information was not requested (i.e., student number); and

- Inducements did not offer bonus marks in psychology courses (only entry into the same random draw for the three coffee gift certificates).

There was also a second informed consent form to request permission for future contact, should they be interested in participating in the qualitative study (Appendix P). Participants were similarly advised about the obligations for future participation. Debriefing information contained in the packages included contact information for the company's employee assistance program (EAP; Appendix Q), as well as the community mental health centre.

CHAPTER 4

Results – Quantitative Study

4.1 Data Conditioning and Preliminary Analyses

All statistical analyses were completed using SPSS version 15.0 and higher. After

completing data collection, the initial sample size was $N = 365$ (from both university and

community groups). In arriving at a final sample size of $N = 317$ for conducting the

principal analyses, the data set was first conditioned in an order prescribed by Tabachnick

and Fidell (2001), as follows:

Typographical Errors and Out-of-Range Values

These were checked against the original questionnaires and corrected.

Language Comprehension (ERCT-R)

Cases scoring lower than 60% were removed ($N_{post-sec} = 4$ scored 60% or less).

Univariate Outliers

Univariate outliers are scores that are +/- 3.0 SD from the mean and are

discontinuous from the distribution. Several univariate outliers were detected in the data

set. As these cases were mild outliers (SD +/- $3.0 - 3.5$), they were assigned scores that

maintained their relative position to the rest of the distribution while placing them within

3.0 SD of the mean.

Missing Data

Missing data was judged on the basis of missing more than 20% of a particular

questionnaire. Based on this criterion, 8 participants were removed due to missing data

on the EOMEIS-II identity measure ($N_{post-sec} = 4$, $N_{comm} = 4$). Twelve participants were

also removed for missing data on the parental measures.

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Linearity and Homoscedasticity Assumptions

Plots of residuals, bivariate plots within and across sets of measures did not show any violations of linearity.

Normality Assumptions

Mild skewness and kurtosis was found on several measures; specifically, self-acceptance, happiness, and parental involvement were negatively skewed, while emotional/behavioural distress was positively skewed. However, no transformations were performed on these measures, as the sample size was sufficiently large (Tabachnick & Fidell, 2001).

Multivariate Outliers

Multivariate outliers were assessed using Mahalanobis distance, χ^2, $p < .001$. One participant (from the university group) was removed from the final data set, as they had scores +/- 3.0 SD from the mean on several variables (i.e., high scores on identity foreclosure and diffusion).

Thus, $N = 25$ were removed through the data conditioning process. Coupled with the $N = 23$ removed due to age boundaries, a final sample size of $N = 317$ was achieved for final analyses.

4.2   Descriptive Statistics

Means, standard deviations and internal reliability coefficients (Cronbach's alpha) were calculated for the measures in the questionnaire package. These data are presented in Table 2. In the present sample, participants self-reported a moderate degree of parental attachment, identity diffusion, moratorium and foreclosure, but a high level of identity achievement. Further, happiness and self-acceptance were both at a moderately high level, with 45% of the sample also reporting moderate to high levels of distress.

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Table 2

Descriptive Statistics for Predictor and Criterion Variables: Total Sample and Sub -Samples

Variables	Total					Post-Secondary					Employed				
	M	*SD*	Skew	Kurt	α	*M*	*SD*	Skew	Kurt	α	*M*	*SD*	Skew	Kurt	α
Parental Relationships															
MIS	68.51	16.83	-.54	-.11	.94	72.05	14.44	-.55	.06	.92	60.17	18.41	-.16	-.55	.95
MPA	198.44	30.40	-.91	.33	.94	199.86	28.57	-.95	.66	.93	195.96	35.01	-.73	-.37	.96
FIS	62.20	17.92	-.36	-.36	.95	65.07	17.07	-.50	.01	.94	56.01	18.42	-.12	-.69	.95
FPA	193.45	32.27	-.87	.21	.94	191.86	31.56	-.81	.05	.94	198.26	32.22	-1.15	1.43	.95
Identity															
DIF	48.83	9.88	-.15	-.01	.68	48.34	9.69	-.07	-.36	.67	50.33	10.51	-.78	.83	.68
FOR	34.30	11.41	.47	-.32	.87	35.62	11.46	.46	-.20	.87	32.28	11.06	.35	-1.00	.86
MOR	49.15	10.37	-.04	-.31	.77	50.92	9.67	.04	-.27	.73	42.50	10.57	.43	-.25	.77
ACH	63.11	10.04	-.09	.26	.73	63.24	9.99	-.12	.57	.75	63.31	10.62	-.01	-.29	.71

Table 2

Descriptive Statistics for Predictor and Criterion Variables: Total Sample and Sub-Samples (Continued)

Variables	Total					Post-Secondary					Employed				
	M	*SD*	Skew	Kurt	α	*M*	*SD*	Skew	Kurt	α	*M*	*SD*	Skew	Kurt	α
Mental Health															
SAC	38.64	8.87	-.67	-.01	.89	39.36	8.54	-.77	.26	.89	38.53	8.80	-.30	-.79	.89
SHS	5.07	1.12	-.76	-.24	.86	5.19	1.03	-.79	.44	.85	4.97	1.15	-.61	.17	.87
PAS	18.69	7.17	1.01	1.91	.72	18.22	6.49	.88	1.97	.72	19.56	7.80	.81	1.14	.75

Note. N = 289 – 317 for total sample; *n* = 219 – 219 for post-secondary sub-sample; *n* = 69 – 69 for employed sub-sample. MIS = Maternal Involvement; MPA = Maternal Attachment; FIS = Paternal Involvement; FPA = Paternal Attachment; DIF = Identity Diffusion; FOR = Identity Foreclosure; MOR = Identity Moratorium; ACH = Identity Achievement; SAC = Self-Acceptance; SHS = Subjective Happiness; and PAS = Emotional and Behavioural Distress.

4.3   Correlations between Predictor and Criterion Variables

It was predicted that increases in emerging adults' parental attachment security would predict improved mental health (i.e., increases in well-being, decreases in emotional and behavioural distress), and that this relationship would be mediated by identity formation (specifically, greater identity achievement). These hypotheses were tested through a series of multiple regression analyses (Section 4.5); however, it was first important to evaluate potential multicollinearity and singularity amongst the variables for the subsequent analyses, and intercorrelations between the variables were conducted. Tabachnick and Fidell (2001) prescribe a guideline of $r > .70$ as indicative of potential statistical and/or logical problems with the analyses. The results indicated that although most variables displayed a certain degree of redundancy, the correlations were small enough to provide unique variance in later analyses.

Parental Relationship Variables

Correlations were first calculated between the maternal and paternal relationship variables, and were shown to be correlated (but not redundant) with each other. These results are displayed in Table 3. In particular, maternal and paternal attachment were moderately correlated with each other ($r = .29, p < .001$).

Identity Dimensions

Although the four identity dimensions demonstrated moderate correlations between each other, the magnitude of these correlations indicated that each variable would provide unique variance representative of the different identity dimensions. Higher levels of identity moratorium are related to higher levels of diffusion and foreclosure ($r = .31, p < .001$ and $r = .18, p < .001$, respectively), and lower levels of identity achievement ($r = -.17, p < .001$). These results are displayed in Table 4.

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Mental Health

As expected, positive indicators of mental health (self-acceptance and happiness) were inversely correlated with emotional and behavioural distress. The correlations are higher and exhibit a degree of redundancy (ranging from $r = -.46$ to $r = -.61$, $p < .001$), but do not exceed the threshold of $r = .70$. These results are found in Table 5.

Table 3

Correlations between Maternal and Paternal Relationship Measures

Variables	Maternal Attachment	Paternal Involvement	Paternal Attachment
Maternal Involvement	.58***	.56***	.11
Maternal Attachment	--	.24***	.29***
Paternal Involvement		--	.64***

Note. N = 315 – 316.

***p < .001.

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Table 4

Correlations between Identity Measures

Variables	Foreclosure	Moratorium	Achievement
Diffusion	.06	.31***	-.23***
Foreclosure	--	.18***	.06
Moratorium		--	-.17***

Note. N = 289 – 299.

***p < .001.

Table 5

Correlations between Mental Health Measures

Variables	Emotional and Behavioural Distress	Subjective Happiness
Self-Acceptance	-.46***	.56***
Emotional and Behavioural Distress	--	-.61***

Note. N = 315 – 317.

***p < .001.

4.4   Emerging Adulthood Hypotheses

Defining Post-Secondary Students Versus Employed Individuals

The first set of hypotheses was generated to examine characteristics of emerging adulthood and the features of being an adult in the present sample. Specifically, one goal was to distinguish between post-secondary students and employed emerging adults and compare the two groups' experiences. However, it became apparent when participant demographics were computed that there was no clearly defined 'student' or 'worker' type, and that there was a range of experiences not easily separated. For example, many individuals who identified as full-time students were not just students but also held down part-time or even full-time employment – these employment experiences could be either superfluous to their ultimate career goals, or supportive of their ambitions. Likewise, many employed individuals did not attend school, but there were others who also attended part-time courses. Although the original goal was to examine post-secondary students versus employed individuals, this distinction could not be made simply by looking at the source of the sample. Upon examining the data, four primary groups representing various combinations of education and employment were established[4]:

- Group 1 consisted of *'typical' students*, who were enrolled in full-time coursework and working on a part-time/casual basis ($n = 142$).

- Group 2 represented *'pure' students*, who were enrolled full-time in classes but did not currently have a job ($n = 77$).

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[4] A fifth group was also examined and consisted of $n = 10$ who were full-time students, who also worked full-time. Although similar in mean scores to the other four groups, Group 5 was removed from the emerging adulthood analyses, as it was uncertain whether their main responsibility was their post-secondary education or their full-time employment. Other groups of education and employment experiences also existed (e.g., part-time work / part-time school) but contained too few participants ($n = 3$).

- Group 3 represented *'pure' employed individuals*, who held full-time jobs but were not currently enrolled in any form of post-secondary education ($n = 58$).

- Group 4 represented *working participants in school*, who were employed full-time but who also took part-time coursework ($n = 11$).

A series of independent t-tests was performed to assess if the mean differences on the predictor and criterion variables were significant between the four groups (Bonferroni-corrected to protect against inflated Type-I error, $\alpha = .05/11 = .004$). Tests indicated no significant differences between the two student groups, and no differences between the two employed groups. Thus, for the purposes of testing hypothesized comparisons, these four primary groups were collapsed into two sub-samples: a post-secondary student sample (full-time students with varying degrees of work), and an employed individuals sample (full-time workers with varying degrees of school). The mean scores on the questionnaire measures for the four primary groups (plus a fifth unique group) can be found in Table 6. Complete demographics, comparing the total sample of 317 with the two sub-samples of post-secondary students and employed individuals, can be found in Tables 7 – 9.

Sub-Sample #1: Post-Secondary Students

This sub-sample included 219 post-secondary students and was composed of 167 females (76.3%) and 52 males (23.7%), with a mean age of 20.48 years ($SD = 2.97$; range = 18.00 to 32.75 years). The majority of this sample ($n = 205$) was recruited via the data collection at the University New Brunswick (Saint John), with 14 additional participants also recruited from the community data collection. The median education level of this sample was 13.00 years. As noted earlier, 142 participants in this sub-sample were also

managing part-time jobs, while 77 participants were not employed at the time of

sampling.

Table 6

Comparison of Mean Scores on Predictor and Criterion Variables for Groups 1 to 5

	Group				
Variables	Typical Student (*n* = 142)	Pure Student (*n* = 77)	Pure Worker (*n* = 58)	Worker Taking Courses (*n* = 11)	Full-Time Both (*n* = 10)
Age	19.91	21.53	27.61	27.75	21.79
Parental Relationship					
Maternal Involvement	73.03	70.21	59.10	65.82	62.99
Maternal Attachment	198.21	201.61	192.58	213.72	209.60
Paternal Involvement	66.04	63.29	55.82	57.00	59.80
Paternal Attachment	191.91	191.75	197.65	201.45	198.10
Identity					
Diffusion	48.32	48.37	51.49	44.20	46.00
Foreclosure	36.10	34.72	31.94	33.91	27.70
Moratorium	50.79	51.17	43.24	38.80	54.11
Achievement	64.15	61.63	61.80	70.90	61.00
Mental Health					
Self-Acceptance	39.59	38.95	38.19	40.36	32.30
Subjective Happiness	5.22	5.12	4.91	5.27	4.37
Emotional and Behavioural Distress	18.05	18.45	19.39	20.45	23.60

Note. Not included here: part-time school/work (*n* = 7); part-time school/no work (*n* = 4); no school/part-time work (*n* = 3); no school/work (*n*= 5).

Table 7

Frequencies: Maternal Relationship in Total Sample and Sub-Samples

Variables	Sample		
	Total (*N* = 317)	Post-secondary (*n* = 219)	Employed (*n* = 69)
Identity of Mother Figure			
Biological/birth mother	311	216	67
Stepmother	3	1	2
Another non-related person	3	2	--
Present Relationship Quality			
Close	255	180	53
Not very close	53	34	14
Distant	8	4	2
No response	1	1	---
Past Relationship Quality			
Close	220	146	50
Not very close	47	36	11
Distant	16	8	6
Not applicable	1	1	--
No response	33	28	2
Frequency of Contact			
Daily	209	172	20
2 – 4 times/week	64	28	27
2 – 4 times/month	38	16	20
Less than once a month	5	2	2
No response	1	1	---

Table 8

Frequencies: Paternal Relationship in Total Sample and Sub-Samples

Variables	Sample		
	Total ($N = 317$)	Post-secondary ($n = 219$)	Employed ($n = 69$)
Identity of Father Figure			
Biological/birth father	294	205	64
Stepfather	18	10	5
Another relative	1	1	---
Another non-related person	4	3	---
Present Relationship Quality			
Close	229	157	52
Not very close	55	40	9
Distant	30	20	7
Not applicable	2	2	---
No response	1	---	1
Past Relationship Quality			
Close	185	134	35
Not very close	68	39	21
Distant	26	16	9
Not applicable	3	2	---
No response	35	28	4

(Table 8 continued on next page)

Table 8

Frequencies: Paternal Relationship in Total Sample and Sub-Samples (Continued)

Variables	Sample		
	Total (*N* = 317)	Post-secondary (*n* = 219)	Employed (*n* = 69)
Frequency of Contact			
Daily	167	141	16
2 – 4 times/week	78	41	27
2 – 4 times/month	45	21	19
Less than once a month	20	11	6
No contact	5	4	---
No response	2	1	1

Table 9

Frequencies: Instrumental Support in Total Sample and Sub-Samples

Variables	Sample		
	Total (*N* = 317)	Post-secondary (*n* = 219)	Employed (*n* = 69)
Place of Living			
Both parents	145	129	9
Mother only	30	22	2
Father only	6	5	1
Residence	22	20	---
Alone	15	4	10
Friends/roommates	20	15	4
Spouse/partner	68	19	38
Other relative	10	4	5
Other, non-relative	1	1	---
Financial Support			
Yes	152	135	7
No	164	83	62
No response	1	1	---

Approximately 98% of this sample nominated their biological mother as their maternal figure, with 82.6% reporting a present close relationship with their mothers. Similarly, 93.6% reported their biological father as their father figure, with 72% reporting to have at present a close relationship with the father ($n = 157$). Only 129 participants (58.9%) were presently living at home with both parents. For those no longer living with one or both parents, the mean length of time away from the parental home was 3.84 years. Furthermore, 62% of the post-secondary student sample reported receiving financial support from a parental figure ($n = 135$); of those able to cite a figure, the median level of support was $150.00 a month.

Sub-Sample #2: Employed Individuals

In the second sub-sample, 69 participants were all employed in the Greater Saint John area and represented a cross-section of living situations and educational experiences. This sub-sample was composed of 48 females (69.6%) and 21 males (30.4%), with a mean age of 27.63 years ($SD = 3.98$, range = 19.41 years to 34.75 years). With the exception of 4 participants, this sub-sample was recruited through community advertisements. The majority ($n = 60$) were working full-time in the community with no current educational involvement, and 11 participants were managing full-time jobs and part-time coursework. The mean education level of this sample was 14.50 years (and ranged from 12 to 24 years).

Approximately 97% of these participants reported their biological mother as their mother figure, with 76.8% reported presently having a close relationship with their mothers. Also, 91.3% participants named their biological father as their father figure, with 76.5% of respondents reported presently having a close relationship with the father. As expected, only 17.4% of this sample was living at home with one or both parental

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figures; the majority of the group was living with a spouse/partner (55.1%). Of those no longer living with one or both parents, the mean length of time away from the parental home was 7.60 years. Also, 89.9% said they did not receive financial support from their parents. Of those reporting some level of financial support, the median level was $30.00 per month.

Hypotheses 1a and 1b: Living in the Parental Home

A main factor in describing emerging adulthood is the level of instrumental support provided by parents to emerging adults. One such form of support is the ability to continue living in the parental home. It was predicted that 1a) most post-secondary participants would have close contact with their parental figures by living at home (thus closely matching current national statistics in that a majority of emerging adults in full-time post-secondary education live at home; Boyd & Norris, 1999); and 1b) most employed individuals would no longer live in the family home with their parental home.

Both hypotheses were supported. It was found that 1a) a majority of full-time students were still living in the parental home with one or both parental figures (71.3%), while 1b) a minority of employed individuals were living in similar conditions (17.1%) ($\chi^2(1, N = 288) = 62.57, p < .001$).

Hypotheses 2a, 2b, and 2c: Age and Emerging Adulthood

The role of participant age in relation to relevant predictor and criterion variables was then investigated, under the premise that older participants may have attained more qualities of adulthood than their younger counterparts. Specifically, it was hypothesized that older participants would 2a) demonstrate greater identity achievement; 2b) receive less financial support from parents; and 2c) display greater mental health (as measured by higher levels of subjective happiness and self-acceptance, and lower levels of

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emotional/behavioural distress). Pearson correlations between relevant variables were used to evaluate these predictions. Due to the substantial positive skew of the age variable, an inverse (1/x) transformation was applied prior to correlation analyses (Tabachnick & Fiddell, 2001) to improve the normality of the distribution.

Hypothesis 2a was partially supported. Although there was no observed relation between participant age and identity achievement, there were inverse correlations between age and identity foreclosure and moratorium ($r = -.22$ and $-.29$, $p < .001$, respectively). Specifically, the older the participant, the less premature commitment to an identity (i.e., foreclosure) and the less exploration in search of an identity (i.e., moratorium), they exhibited. It was also predicted that participant age would be positively correlated with better mental health: greater subjective happiness and self-acceptance and less general emotional and behavioural distress (hypothesis 2c). This hypothesis was not supported, as there was no significant relation between age and mental health. These results are presented in Table 10.

Table 10

Correlations between Age, Identity Measures and Mental Health Measures

Variables	Participant Age[1]
Identity	
Diffusion	-.04
Foreclosure	-.22***
Moratorium	-.29***
Achievement	.10
Mental Health	
Self-Acceptance	-.05
Subjective Happiness	.03
Emotional and Behavioural Distress	-.05

Note. $N = 272 - 289$. [1]Age was calculated as an inverse transformation prior to conducting the analyses. Signs have been reversed in the above table for ease of interpretation.

***$p < .001$.

Finally, it was predicted that there would be an inverse relation between a participant's age and the level of financial support required from the parents (Hypothesis 2b). This hypothesis was not supported; for those requiring financial support from parents, age (again, as an inverse transformation) was not a significant factor ($r = .02$, $p < .85$).

Evaluating the second set of hypotheses indicated that although older participants did demonstrate more qualities associated with a greater achievement of adulthood (i.e., less exploration and less premature commitment to an identity), a participant's age was not related to the level of financial support provided by parents, or to an increase in mental health.

Hypothesis 3: Financial Support between Sub-Samples

It was predicted that post-secondary students would require more financial support from parental figures than employed individuals. Due to the extreme skew in the distribution of the financial support variable, the decision was made to evaluate this hypothesis using a non-parametric equivalent to the independent groups *t*-test (Mann-Whitney U test). It was then determined that there was a significant difference in the level of financial support received, with post-secondary students receiving more than employed individuals ($U = 133.00$, $p < .005$), thus supporting hypothesis 3. This result is unsurprising, given that 61.9% of post-secondary students received a median amount of $150.00 monthly, while just 10.1% of employed individuals reported financial support from parents, with a median level of $30.00 monthly.

Hypothesis 4: Orientation or Group Membership

Hypothesis 4 was concerned with potential differences between and within the post-secondary students and the employed individuals groups. It was originally predicted

that there would be no significant difference between post-secondary students and employed individuals, but that there would be within each group when comparing full-time versus part-time orientations. As the breakdown of full-time and part-time orientations of this sample was not as clear-cut as originally anticipated, the within-comparisons were not evaluated. Instead, the question of whether or not post-secondary students would have differences in identity achievement (i.e., less identity exploration and commitment), parental relationships (i.e., more contact and perhaps more positive relationships) and poorer mental health (i.e., lower psychological well-being, greater psychological distress) than employed individuals was explored by means of a Hotelling's T^2 test. The independent variable was membership in either of the two sub-sample groups (i.e., post-secondary students and employed individuals). The dependent variables were: maternal attachment, maternal involvement, paternal attachment, paternal involvement, identity diffusion, foreclosure, moratorium and achievement, and self-acceptance, subjective happiness and emotional/behavioural distress. Assumption testing[5] was conducted and no serious violations were noted.

There was a statistically significant difference between the two emerging adult groups on the combined dependent variables: Hotelling's $T^2 = 79.12$, $F(11, 237) = 6.90$, $p < .0001$, partial $\eta^2 = .24$. To examine group differences, the dependent variables' correlations with the canonical variate and group means were examined (Bray & Maxwell, 1982). The two groups differed on one canonical variate (using the guideline of $r > .30$; Tabachnick & Fidell, 2001), on which identity moratorium ($r = -.61$), maternal involvement ($r = -.47$) and paternal involvement ($r = -.32$) loaded. When examining the

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[5] Assumptions that were examined in conducting the MANOVA include: sample size, univariate and multivariate normality, univariate and multivariate outliers, linearity, multicollinearity and singularity, and the homogeneity of variance-covariance matrices.

group means for these three variables, the 95% confidence intervals for each group did not overlap (see Table 11). Thus, the two groups created for these analyses do differ on a function of continued identity exploration and parental involvement, such that post-secondary students self-reported higher levels of identity moratorium, maternal involvement and paternal involvement. Hypothesis 4 was partially supported.

Conclusions: Emerging Adulthood Hypotheses

The previous set of hypotheses examined several characteristics of emerging adulthood. Financial and instrumental support and a function of identity moratorium/parental involvement differentiated the experiences of post-secondary students and employed individuals. Further, an inverse transformation of age was directly correlated with identity foreclosure and moratorium. Table 12 summarizes the results of testing the emerging adulthood hypotheses.

Table 11

Group Differences between Post-Secondary Students and Employed Individuals

	Group				
	(1) Post-secondary		(2) Employed		
Variables	Mean	95% CI	Mean	95% CI
Identity Moratorium	50.69	49.30 – 52.09	42.53	39.76 – 45.31
Maternal Involvement	72.18	70.14 – 74.22	62.78	58.29 – 67.25
Paternal Involvement	65.25	62.84 – 67.64	58.03	53.32 – 62.75

Note. $n_{\text{post-sec}} = 192$; $n_{\text{employed}} = 58$.

Table 12

Summary of Results Supporting Emerging Adulthood Hypotheses (1a – 4)

Hypotheses	Measures	Analyses	Support
1a/1b: Most post-secondary participants will live at home with their parental figures. Most employed individuals will no longer live in the family home with their parental figures.	Demographics	Chi-square analysis	Yes: Most full-time post-secondary students (70.8%) still lived at home with one/both parental figures, while few employed individuals (16.0%) were living with their parents.
2a: Age will be directly correlated with identity achievement, and inversely correlated with identity moratorium, diffusion and foreclosure.	Demographics; EOMEIS-II	Correlations	Yes: Older participants demonstrate more qualities associated with a greater achievement of adulthood (i.e., less exploration/premature commitment to an identity).
2b: Age will be inversely correlated with the amount of financial support provided by parents.	Demographics	Correlations	No: The age of the participant is not correlated to the level of financial support provided by their parents.
2c: Age will be directly correlated with better mental health.	Demographics; PAS	Correlations	No: Participant age is not correlated to the levels of mental health.
3: Post-secondary students will require more financial support from parental figures than employed individuals.	Demographics	Mann-Whitney U test	Yes: Post-secondary students required more financial support from parental figures than employed individuals.
4: There will be no difference between employed individuals and post-secondary participants on parental attachment, identity formation, and mental health.	PAQ; EOMEIS-II; PAS	MANOVA	Partial: Post-secondary students and employed individuals differ on a function of continued identity exploration and parental involvement.

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4.5   Hypotheses Testing Models of Emerging Adult Mental Health

Correlations: Parental Relationships and Identity

When examining the parental relationship and identity, higher levels of maternal attachment were related to more identity achievement and foreclosure (i.e., premature commitment to an identity). Higher levels of foreclosure were also related to higher levels of maternal and paternal involvement. Conversely, higher levels of identity moratorium (i.e., extended exploration without commitment to an identity) were related to lower levels of paternal attachment. Results for both parental relationships are displayed in Table 13.

Correlations with Mental Health

As anticipated, higher levels of paternal and maternal attachment and involvement (the proposed predictor variables) were related to greater happiness and self-acceptance, and less emotional/behavioural distress (the criterion variables). Finally, the correlations between the proposed mediator variable (identity) and the criterion variable (mental health) were examined. Higher levels of happiness and self-acceptance were related to less diffusion and moratorium, and more achievement. More distress were related to more diffusion and moratorium, and less foreclosure and achievement. The results of both sets of correlations – parental relationships with mental health, and identity with mental health – are found in Tables 14 and 15, respectively.

Table 13

Correlations between Parental Relationship Measures and Identity Measures

	Identity			
Variables	Diffusion	Foreclosure	Moratorium	Achievement
Maternal Relationship				
Attachment	-.09	.26***	-.02	.12*
Involvement	-.13***	.35***	.10	.05
Paternal Relationship				
Attachment	-.06	.21***	-.12*	.11
Involvement	-.10	.38***	.01	.05

Note. $N = 298 - 306$.

*$p < .05$. ***$p < .001$.

Table 14

Correlations between Mental Health Measures and Parental Relationship Measures

	Mental Health		
Variables	Subjective Happiness	Self-Acceptance	Emotional/ Behavioural Distress
Maternal Relationship			
Attachment	.28***	.23***	-.21***
Involvement	.28***	.25***	-.28***
Paternal Relationship			
Attachment	.22***	.22***	-.21***
Involvement	.23***	.23***	-.17***

Note. N = 314 – 317.

*** *p* < .001.

Table 15

Correlations between Mental Health Measures and Identity Measures

Variables	Mental Health		
	Subjective Happiness	Self-Acceptance	Emotional/ Behavioural Distress
Identity			
Diffusion	-.18[***]	-.23[***]	.22[***]
Foreclosure	.09	.06	-.11[***]
Moratorium	-.17[***]	-.30[***]	.15[***]
Achievement	.28[***]	.20[***]	-.13[***]

Note. N = 297 – 306.

[***]*p* < .001.

Upon examining these correlations, it appears that they may be a difficulty in assessing the model of parental relationships and mental health (as mediated by identity). As indicated by the patterns of association between the three variable sets, the proposed predictor variables (parental relationships) are primarily associated with one dimension of the proposed mediator (i.e., identity foreclosure), whereas the proposed criterion variable (mental health) is associated largely with the other three identity dimensions.

It is possible that a broader conceptualization of attachment (i.e., using a general attachment anxiety or avoidance score) is correlated with more aspects of identity formation. As discussed in Chapter 2, attachment internal working models (often characterized by dimensions of anxiety and avoidance) are broad conceptions of relationship expectations and cognitions. However, relationship-specific attachments may be relevant to only one dimension of identity formation. It was thus decided that including general attachment avoidance and anxiety (dimensions as calculated from the RQ measure) in the assessment of the mediational model would be judicious. If the analyses revealed that general attachment is a significant predictor but parental attachment is not, it would indicate the possibility that other attachment relationships (e.g., peer, romantic) not measured in the present study may be implicated for future study.

Table 16 presents the correlations between general attachment, identity and mental health. As anticipated, higher levels of general anxiety and avoidance were related to higher levels of distress, and lower levels of happiness and self-acceptance. Further, higher levels of anxiety was related to higher levels of identity moratorium, while higher

levels of avoidance was related to lower levels of foreclosure and achievement, and

higher levels of identity diffusion.

Table 16

Correlations between General Attachment, Identity and Mental Health Measures

Variables	General Attachment	
	Anxiety	Avoidance
Identity		
Diffusion	.03	.16**
Foreclosure	-.09	-.12**
Moratorium	.18***	.01
Achievement	-.01	-.10*
Mental Health		
Subjective Happiness	-.42***	-.31***
Self-Acceptance	-.26***	-.17***
Emotional and Behavioural Distress	.41***	.31***

Note. N = 293 – 310.

*p < .05. **p < .01. ***p < .001.

Gender as Covariate

Previous research has implicated gender as an important source of differences in the measurement of attachment, identity, and mental health. Prior to assessing the proposed model, it was first important to determine whether or not gender was a significant covariate for these analyses. An exploratory analysis, by means of a Hotelling's T^2 test, was conducted to investigate the potential differences in parental attachment, identity formation, and mental health between females and males. The dependent variables were: maternal attachment, maternal involvement, paternal attachment, paternal involvement, identity diffusion, foreclosure, moratorium, achievement, self-acceptance, subjective happiness and emotional/behavioural distress. Assumption testing was conducted and no serious violations were noted.

There was no statistically significant difference between female and male participants on the combined dependent variable: Hotelling's $T^2 = 17.82$, $F(11, 261) = 1.67$, $p < .08$, partial $\eta^2 = .07$. With the present sample, it was not necessary to include gender as a covariate in the test of the mediational model.

Testing the Proposed Model

Path analysis techniques[6] were used to test the proposed model of attachment, identity and mental health in the present emerging adult sample. Path analysis employs a series of multiple regression analyses to indicate "paths" between single variables. In the

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[6] Although structural equation modeling (SEM) is increasingly a preferred method of model testing, this method was not used for two reasons. First, a confirmatory factor analysis (principal axis factoring) was conducted to evaluate the proposed measurement model and latent constructs (Anderson & Gerbing, 1998; Garson, 2009). The CFA results indicated that SEM was not suitable with the proposed latent constructs; whereas four latent constructs were proposed (maternal relationship, paternal relationship, identity, and mental health), the present data was more representative of three latent constructs (with identity and mental health loading onto the same factor). Second, parental involvement and attachment were fairly redundant with each other. Once parental involvement was removed from these analyses, there were only single indicators of the maternal and paternal relationships.

present analyses, parental attachment and involvement, general attachment, identity and mental health variables were included in the model. However, it was clear after running the regression analyses that parental attachment and involvement were too redundant with each other to be included in the analyses[7]. As the principal theoretical interest was to evaluate parental attachment as a predictor of identity and mental health (i.e., the use of the parent as a secure base from which to explore new identities, resulting in improved mental health), the two parental involvement variables were excluded from path analyses. Further, as a series of tests on the same sample was conducted to evaluate this hypothesis, a Bonferroni adjustment to the alpha level was made (with 10 comparisons in total, the corrected alpha was $p < .005$).

As outlined by Baron and Kenny (1986), and Frazier, Tix and Barron (2004), there are four steps that must be established in testing for mediation:

- Step 1: The predictor significantly predicts the outcome variable (path c).

- Step 2: The predictor significantly predicts the mediator variable (path a).

- Step 3: The mediator significantly predicts the outcome variable (path b).

- Step 4: The predictor is entered into a regression analysis (after controlling for the relation between the mediator and outcome), and the strength of this new relation between predictor and outcome (path c') is compared to the original (path c). If the association is significantly reduced to zero, there is complete mediation in the model (Baron & Kenny, 1986; Frazier et al., 2004). If the association is not zero but is significant (as determined by the Sobel test; Baron & Kenny, 1986),

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[7] Tolerances ranged from .26 - .45, indicating that over half to three-quarters of the variance of these variables were accounted for by each other. Including both sets of parental relationship variables (attachment and involvement) thus reduced the overall strength of the analyses.

partial mediation is taking place and multiple mediators can be proposed (Baron & Kenny, 1986).

To begin with the first step (predictor → criterion), three multiple regression analyses were conducted for each of the mental health outcome variables. The results for path c are found in Table 17, and indicate that although parental attachment was not significantly predictive of the three mental health variables, increases in both general attachment anxiety [$\beta = .32$, $t(302) = 6.13$, $p < .005$] and avoidance [$\beta = .24$, $t(302) = 4.89$, $p < .005$] were predictive of more emotional and behavioural distress. Also, increases in general attachment anxiety [$\beta = -.32$, $t(300) = -6.23$, $p < .005$] and avoidance [$\beta = -.24$, $t(300) = -4.78$, $p < .005$] were predictive of less subjective happiness.

The absence of a statistically significant link between parental attachment and the mental health variables indicates that a mediational model as hypothesized cannot be evaluated. However, the mediational model with general attachment-identity-mental health can potentially be tested.

Table 17

Multiple Regression: Mental Health Regressed onto Attachment (path c)

	Mental Health					
Variables	Subjective Happiness		Self-Acceptance		Emotional/ Behavioural Distress	
	r	β	r	β	r	β
Attachment						
Avoidance	-.31***	-.24***	-.18***	-.13	.31***	.24***
Anxiety	-.42***	-.32***	-.26***	-.17	.41***	.32***
Maternal Attachment	.28***	.13	.25***	.14	-.28***	-.13
Paternal Attachment	.22***	.11	.21***	.14	-.21***	-.11
R	.52***		.36***		.52***	

Note. $N = 306 - 309$.

***$p < .005$.

The next step is to evaluate path a – the relations between the proposed predictors

(general and parental attachment) and the proposed mediators (identity). Four multiple

regression analyses were conducted to evaluate this path, with the results displayed in

Table 18. As shown, increases in maternal attachment [$\beta = .22$, $t(292) = 3.06$, $p < .005$]

uniquely predicted increases in identity foreclosure, while increased attachment anxiety

[$\beta = .19$, $t(284) = 3.10$, $p < .005$] was predictive of increased identity moratorium.

The absence of a statistically significant link between attachment avoidance and the

identity variables now indicates that a mediational model between these variables cannot

be assessed. However, identity moratorium may potentially be a mediator of the

attachment anxiety-mental health links presented in Table 17.

Table 18

Multiple Regression: Identity Regressed onto Attachment (path a)

Variables	Identity							
	Diffusion		Foreclosure		Moratorium		Achievement	
	r	β	r	β	r	β	r	β
Attachment								
Avoidance	.16***	.16	-.12*	-.09	.01	-.02	-.10*	-.09
Anxiety	.03	-.02	-.08	.01	.18*	.19*	-.01	.05
Maternal Attachment	-.09	-.07	.27***	.22***	-.01	.07	.11	.10
Paternal Attachment	-.06	-.03	.22***	.16	-.12	-.11	.11	.08
R	.18		.32***		.22		.17	

Note. $N = 291 - 300$.

$^{*}p < .05$. $^{***}p < .005$.

Then, the next step was to evaluate path b – the relations between the proposed

mediators (identity) and the mental health outcome variables. Three multiple regression

analyses were conducted to evaluate this path, with the results displayed in Table 19.

Increases in emotional and behavioural distress were uniquely predicted by increases in

identity diffusion [β = .18, t(276) = 3.01, p < .005]. Decreases in self-acceptance were

uniquely predicted by increases in identity moratorium [β = -.24, t(276) = -3.88, p <

.005]. Finally, increases in subjective happiness were predicted by increased identity

achievement [β = .25, t(274) = 4.18, p < .005].

Table 19

Multiple Regression: Mental Health Regressed onto Identity (path b)

Variables	Mental Health					
	Subjective Happiness		Self-Acceptance		Emotional/ Behavioural Distress	
	r	β	r	β	r	β
Identity						
Diffusion	-.19***	-.10	-.23***	-.13	.22***	.18***
Foreclosure	.09	.09	.05	.08	-.11***	-.14
Moratorium	-.18***	-.12	-.30***	-.24***	.16***	.09
Achievement	.27***	.25***	.20***	.14	-.13***	-.10
R	.34***		.36***		.29***	

Note. $N = 275 - 277$.

***$p < .005$.

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It should be noted that although general attachment anxiety was a unique predictor of identity moratorium, it was not predictive of self-acceptance (the mental health variable predicted by moratorium). Thus, a mediational model cannot be tested with the present data. The statistically significant paths between attachment, identity and mental health are nonetheless presented in Figure 5.

Figure 5.

Path Analysis of Attachment, Identity, and Mental Health
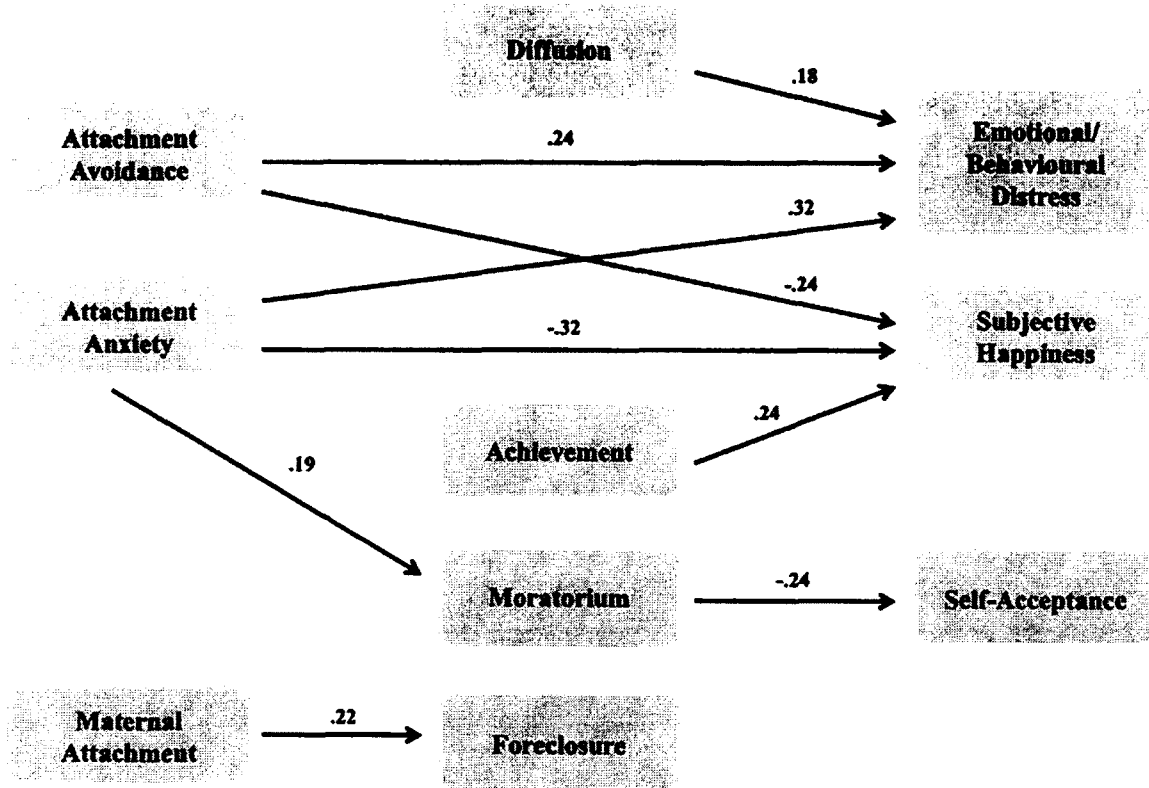
Table 20

Summary of Results Supporting Mediational Model Hypotheses (5a – 8)

Hypotheses	Measures	Analyses	Support
5a: Greater paternal attachment will predict better mental health.	PAQ; PAS	Regression analyses	No: Increased paternal attachment does not predict better mental health.
5b: Greater maternal attachment will predict better mental health.	PAQ; PAS	Regression analyses	No: Increased maternal attachment does not predict better mental health.
6a: Greater paternal attachment and involvement will predict greater identity achievement, and less moratorium, diffusion and foreclosure.	PAQ; EOMEIS-II	Regression analyses	No: Increased paternal attachment does not predict increased identity achievement.
6b: Greater maternal attachment and involvement will predict greater identity achievement.	PAQ; EOMEIS-II	Regression analyses	Partial support: Increased maternal attachment predicted increased identity foreclosure.
6c: The strength of association between paternal variables and identity will be significantly stronger than those between maternal variables and identity.	PAQ; EOMEIS-II	z-test	There were no associations between the paternal variables and identity variables, and thus were unable to compare any strength of betas.
7: Greater identity achievement, and lower identity moratorium, diffusion and foreclosure statuses, will predict better mental health.	EOMEIS-II; PAS	Regression analyses	Yes: Increased identity diffusion predicted greater distress; lower identity moratorium predicted greater self-acceptance; greater identity achievement predicted greater subjective happiness.
8: Identity formation (achievement) will mediate the relation between parental attachment and mental health.	PAQ; EOMEIS-II; PAS	Regression analyses	Results did not support the testing of a mediational model of parental attachment, identity and mental health.

4.6   Exploratory Research Question

The exploratory research question examined the differences on the self-report measures between the four categorical attachment styles. To determine if there were significant differences between the four categories of attachment on the parental attachment, identity and mental health variables, a one-way between groups multivariate analysis of variance (MANOVA) was used. The predictor set was the four attachment categories: each participant was placed in the category that they self-reported to best represent their overall relational style (question 5 on the Relationship Questionnaire). According to this classification, approximately 43% of the participants were securely attached, with 24.9% having a fearful attachment, 13.2% with a preoccupied attachment and 17.5% with a dismissing attachment. The dependent variable set were the 2 variables that represented paternal attachment and the 2 variables that represented maternal attachment (i.e., parents as facilitators of independence and parental involvement), the four identity status variables (achievement, foreclosure, diffusion and moratorium), and the three mental health variables (subjective happiness, self-acceptance and general distress). Assumption testing was conducted and no serious violations were noted.

There was a statistically significant difference between the four categories of attachment on the combined dependent variables: $F(33, 759) = 2.38, p < .001$, Pillai's Trace = .28, partial $\eta^2 = .09$. The unique contribution of the dependent variables to the discriminant function was then considered.

As in previous multivariate analyses conducted in the present study, the dependent variables' correlations with the canonical variate and group means were examined (Bray & Maxwell, 1982). The four groups differed on one canonical variate, (using the guideline of $r > .30$; Tabachnick & Fidell, 2001), on which

behavioural/emotional distress (r = -.66), subjective happiness (r = .37), and self-acceptance (r = -.50) loaded. When examining the group means and the 95% confidence intervals for these three variables (see Table 21), individuals with a secure attachment orientation experienced the lowest level of distress and significantly differed from the three insecure attachment styles. Of the insecure attachment orientations (which did not differ from each other due to overlapping confidence intervals), those with a fearful attachment expressed the highest levels of distress. As well, securely attached individuals had significantly higher levels of happiness than preoccupied or fearful individuals, but were similar to dismissing attachment orientations. Finally, the securely attached significantly differed from fearful attachment orientations in their self-acceptance scores, but not from those with a preoccupied or dismissing attachment. Table 22 summarizes all of the results for the hypotheses and analyses conducted for Study 1.

Table 21

Group Differences between Four Categories of Attachment

	Mental Health		
	Self-acceptance	Subjective happiness	Emotional/ behavioural distress
1	M = 41.00 95% CI = 39.43 – 42.57	M = 5.52 95% CI = 5.37 – 5.67	M = 15.81 95% CI = 14.87 – 16.75
2	M = 37.14 95% CI = 34.48 – 39.81	M = 5.20 95% CI = 4.55 – 5.25	M = 19.51 95% CI = 17.42 – 21.60
3	M = 35.44 95% CI = 33.17 – 37.71	M = 4.58 95% CI = 4.28 – 4.89	M = 22.85 95% CI = 20.78 – 24.92
4	M = 39.92 95% CI = 37.21 – 42.62	M = 5.20 95% CI = 4.85 – 5.52	M = 19.40 95% CI = 17.27 – 21.52

Note. N = 35 – 116. 1 = Secure attachment; 2 = Preoccupied attachment; 3 = Fearful attachment; 4 = Dismissing attachment.

Table 22

Summary of Study 1 Hypotheses and Results

Hypotheses	Measures	Analyses	Support
1a/1b: Most post-secondary participants will live at home with their parental figures. Most employed individuals will no longer live in the family home with their parental figures.	Demographics	Chi-square analysis	Yes: Most full-time post-secondary students (70.8%) still lived at home with one/both parental figures, while few employed individuals (16.0%) were living with their parents.
2a: Age will be directly correlated with identity achievement, and inversely correlated with identity moratorium, diffusion and foreclosure.	Demographics; EOMEIS-II	Correlations	Yes: Older participants demonstrate more qualities associated with a greater achievement of adulthood (i.e., less exploration/premature commitment to an identity).
2b: Age will be inversely correlated with the amount of financial support provided by parents.	Demographics	Correlations	No: The age of the participant is not correlated to the level of financial support provided by their parents.
2c: Age will be directly correlated with better mental health.	Demographics; PAS	Correlations	No: Participant age is not correlated to the levels of mental health.
3: Post-secondary students will require more financial support from parental figures than employed individuals.	Demographics	Mann-Whitney U test	Yes: Post-secondary students required more financial support from parental figures than employed individuals.
4: There will be no difference between employed individuals and post-secondary participants on parental attachment, identity formation, and mental health.	PAQ; EOMEIS-II; PAS	MANOVA	Partial: Post-secondary students and employed individuals differ on a function of continued identity exploration and parental involvement.

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Table 22

Summary of Study 1 Hypotheses and Results (continued)

Hypotheses	Measures	Analyses	Support
5a: Greater paternal attachment will predict better mental health.	PAQ; PAS	Regression analyses	No: Increased paternal attachment does not predict better mental health.
5b: Greater maternal attachment will predict better mental health.	PAQ; PAS	Regression analyses	No: Increased maternal attachment does not predict better mental health.
6a: Greater paternal attachment and involvement will predict greater identity achievement, and less moratorium, diffusion and foreclosure.	PAQ; EOMEIS-II	Regression analyses	No: Increased paternal attachment does not predict increased identity achievement.
6b: Greater maternal attachment and involvement will predict greater identity achievement.	PAQ; EOMEIS-II	Regression analyses	Partial support: Increased maternal attachment predicted increased identity foreclosure.
6c: The strength of association between paternal variables and identity will be significantly stronger than those between maternal variables and identity.	PAQ; EOMEIS-II	z-test	There were no associations between the paternal variables and identity variables, and thus were unable to compare any strength of betas.
7: Greater identity achievement, and lower identity moratorium, diffusion and foreclosure statuses, will predict better mental health.	EOMEIS-II; PAS	Regression analyses	Yes: Increased identity diffusion predicted greater distress; lower identity moratorium predicted greater self-acceptance; greater identity achievement predicted greater subjective happiness.
8: Identity formation (achievement) will mediate the relation between parental attachment and mental health.	PAQ; EOMEIS-II; PAS	Regression analyses	Results did not support the testing of a mediational model of parental attachment, identity and mental health.

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Table 22

Summary of Study 1 Hypotheses and Results (continued)

Hypotheses	Measures	Analyses	Support
EQ1: Are there significant differences between the four general attachment styles of secure, preoccupied, fearful and dismissing attachment (Bartholomew & Horowitz, 1991) on parental attachment, identity formation, and mental health?	RQ; PAS	MANOVA	The four general attachment styles of secure, preoccupied, fearful and dismissing attachment differed on a function of mental health.

CHAPTER 5

Discussion – Quantitative Study

In the first part of the present research, a quantitative study was undertaken to examine several facets of emerging adulthood, as well as a proposed mediational model of the links between parental attachment, identity and mental health variables. Although some hypotheses about characteristics of emerging adulthood were confirmed, results did not support the model as hypothesized. The implications of these results in relation to the existing literature, and proposed alternative explanations of the data, will now be explored.

5.1 Characteristics of the Transition into Adulthood

A set of hypotheses were first explored, which tested several key assumptions of emerging adulthood. Embedded in these hypotheses was the opportunity to examine potential differences between those primarily engaged in a post-secondary education program and those engaged primarily in full-time employment. To best understand differences in being a student or being employed, the sample was divided in such a way that the full-time commitment to school or work was the primary consideration. However, it should be noted that the variability represented in the demographics alone supports contentions that heterogeneity itself is a defining characteristic of emerging adulthood experiences (e.g., Arnett, 2000; Côté, 2006).

It was first predicted – and confirmed – that most post-secondary students in the present sample would still be living at home (70.8%), while a minority of employed emerging adults lived under similar circumstances (16.0%). It was also predicted – and confirmed – that post-secondary students would require more financial support from parental figures than employed emerging adults. In the present sample, 62.0% of the post-

secondary students received financial support from parents (regardless of their employment status), while approximately 9% of employed emerging adults still received financial support.

These results reflect previous research (e.g., Boyd & Norris, 1999), which found that many full-time post-secondary students still live at the parental home. Yet, other statistical sources indicate that smaller proportions of this age group were still in the parental home or moved back into the home (43.5%; 2006 Census). Although it is certainly understandable that many full-time post-secondary students would need greater financial and instrumental support from parents, the present study did not explore specific reasons for staying in the parental home longer or increased reliance on parental financial resources. For example, is the increased reliance due to necessity (i.e., due to a significant proportion of 18- and 19-year-old students in the sample, who may not have the resources to leave the parental home immediately after high school graduation), or is it due to difficulties in separating from parents (i.e., having sufficient self-efficacy or confidence to assume greater responsibilities)? Following this last point, and the propensity of students to rely on financial and instrumental support from parents during this stage, it would be of interest to understand if and how emerging adults' mental health is influenced by negative social stereotypes (e.g., Grossman, 2005) and emerging adults' own perceptions of their prolonged adolescence. That is, do emerging adults perceive the continued dependence on parents to be merely the facilitation of growing *independence* (Kenny & Donaldson, 1991) – in other words, emerging adulthood as a "necessary evil" resulting from the higher social demands for education, and that forces the extended

adolescence for many? Or, are emerging adults negatively affected because they perceive the move to adulthood as delayed?

Although emerging adulthood research (e.g., Arnett, 2000, 2001) has shown the significance of other markers of being an adult (e.g., responsibility for personal actions, financial independence), another indicator that many use as a marker of adulthood was age. To evaluate if age was related to adulthood characteristics, a series of hypotheses tested the relation between age and a) financial support, b) increased identity achievement, and c) greater mental health (with both groups collapsed together). Based on previous research, it was predicted that increasing age would be related to less financial support from parents, and higher scores on identity achievement and mental health. The results indicate that, of those requiring financial support from their parents, participant age was not a statistically significant factor. Similarly, age was not related to mental health (which included markers of health and distress). This differed from recent work on emerging adults' mental health (e.g., Galambos et al., 2006; Schulenberg & Zarrett, 2006), in which increasing age of university students was related to improved mental health. Other studies found that age was related to increased prevalence in some psychological disorders but not others (e.g., Health Canada, 2002; Tanner, Reinherz, Beardslee, Fitzmaurice, Leis & Berger, 2007).

However, age was inversely correlated with two identity variables: the older a participant was, the less premature commitment (or foreclosure) and the less exploration (or moratorium) was reported. This result is logical as, ideally, getting older is associated with a better sense of one's goals and how to achieve them. Less active exploration (moratorium) may be due to the decreased amount of time older individuals (who are

ostensibly employed) have to explore options and opportunities, or it may be indicative of establishing a course in life and confirming an important part of their identity. Less premature commitment (foreclosure) also indicates that older participants are likely more invested in the contributing pieces to their identity (Buhl, 2007) as they define their goals, values, beliefs and interests. However, based on age alone and these findings, it would appear that older emerging adults are more "adult-like".

The final emerging adulthood hypothesis was to evaluate group differences on the predictor and criterion variables. There were surprisingly few differences between the two groups on the majority of the variables. The exceptions were with respect to parental involvement (both mother and father) and identity moratorium: on both of these, employed emerging adults reported less parental involvement and active identity exploration. Indeed, employed individuals would be expected to have less involvement from parents as they forge independent lives. Although the parental involvement questionnaires covered a variety of life areas, ranging from career advice and guidance to emotional support, employed individuals would be more likely to live away from the parental home. This living arrangement would reduce the frequency of direct contact that feeds into the involvement items on this questionnaire. With respect to less identity moratorium, previous research (e.g., Luyckx, Schwartz, Goossens & Pollock, 2008) has similarly investigated differences between university and employed samples of emerging adults, and found that employed emerging adults experienced a higher sense of identity coherence in relation to increased feelings of "being an adult". However, there is the question of whether employed individuals completed their identity exploration, or if they simply have less luxury of time to devote to active identity exploration (Luyckx et al.

2008). If it is the latter, individuals may revisit and re-explore their identities in the future, which could perhaps lead to a "midlife crisis" and substantial mental health difficulties. Allowing for adequate time to encounter the identity vs. role confusion crisis in emerging adulthood is important, before the emerging adult attempts to incorporate intimate relationships and greater responsibilities (e.g., marriage, children) into his/her lives.

In summary, employed emerging adults bore several differences to their student counterparts: less identity moratorium, less parental involvement, and less instrumental and financial support which parlay into adulthood achievement. For future measurement purposes, it would be ideal to have a few reliable and simple indicators of adulthood status, and the present research does point to some group differences. However, there still remain questions about the underlying motivations and processes behind these findings: is it more important to know the demographic marker or the processes common to differences in parental relationships, identity formation, and mental health? For example, one individual who has a full-time job may continue to live at home or have returned home ("boomerang" adults; Statistics Canada, 2007) because of financial difficulties, to take care of a parent, or a change in romantic relationship status. Or, a student may have achieved a greater sense of responsibility and independence by staying at home longer, taking their time to explore their career options and establish financial stability before leaving. It is argued that understanding processes is more useful from a clinical/applied perspective, and the interviews in Study 2 attempt to explore the underlying processes.

5.2　Parental Attachment and Mental Health in Emerging Adulthood

The present research then explored the proposed mediational model, beginning first with the path between parental attachment and mental health. Previous research has supported the continued use of parents as a secure base for exploration and as a source of support (e.g., Ainsworth, 1989; Kenny & Rice, 1995) well into adulthood. Indeed, the results from Study 1 indicate that a range of attachment-related cognitions and self-reported behaviours (i.e., viewing parental relationships in terms of their abilities to provide affective bonds, support and facilitate independence) persisted with the present emerging adult sample. Although parents may be less directly involved in their emerging adult children's lives, emotional bonds continue to endure – supporting Bowlby's (1988) contention that the attachment relationship between parent and child persists "from the cradle to the grave".

It was hypothesized that parental attachment was correlated with and predicted emerging adults' mental health, as emerging adults under stress would rely upon those coping and regulatory mechanisms associated with the attachment bond (Mikulincer & Florian, 1998). Specifically, research has found that greater attachment security – in general and with respect to parents – is related to improved well-being (Love & Murdock, 2001; Robinson & DiTommaso, 2007; Wilkinson & Walford, 2001) and decreased distress (e.g., Schmidt et al., 2003). Although the primary focus was on the link between the current parental attachments and mental health, general conceptions of attachment styles were also included in the model.

Interestingly, parental attachment was correlated with mental health but did not emerge as a unique predictor when entered in the regression. This result is particularly

surprising with paternal attachment, which is hypothesized to have strong ties to internal working models of the self (and thus, likely a strong predictor of self-acceptance). However, higher scores on general attachment anxiety and avoidance were both related to increased distress and less happiness. These results indicate that, at least in the present sample, parental attachment was not a significant predictor of mental health. Although correlations point to the relevance of parental attachments in this age group, the role that they serve may be an indirect supportive one. Other relationship-specific attachments may have been more appropriate when exploring influences on mental health (e.g., other interpersonal relationships as the individual widens their social world, peers and romantic relationships, and so on).

5.3   Attachment and Identity in Emerging Adulthood

Next, the path between attachment and identity formation was examined. Erikson (1966) postulated that after an individual resolved his/her identity vs. role confusion crisis, he or she would be prepared to face the next crisis: establishing an intimate bond with another person. Attachment theory posits that the initial attachment bonds between parent and child will colour future intimate relationships through internal working models (Pietromonaco & Feldman-Barrett, 2000). That is, how an individual will perceive his/her romantic partners as sources of support, comfort, love and security, and how he or she will react to separation from said partner is contingent on previous experiences with attachment figures (Hazan & Shaver, 1987). Identity formation can be seen as a type of separation from previous identities, incorporating information from many relationships but perhaps contrasting some of the beliefs and values held by parents. If the relationship is secure, though, exploration into new roles should be supported.

In testing the proposed mediational model, the link between current parental attachments and general attachment style, and the four identity dimensions, was assessed. It was found that, in the present study, broader conceptualizations of attachment (i.e., anxiety) and the current maternal attachment both predicted unique variance in identity.

First, the results indicated that increases in general attachment anxiety was a unique predictor of increased levels of identity moratorium. This result is logical considering that attachment anxiety has been related to poor, insecure self-concepts (Bartholomew & Horowitz, 1991; Ross et al., 2006). Individuals with poor self-perception may be inclined to increased amounts of identity exploration in an attempt to "find themselves" and better understand who they are with respect to interpersonal relationships. Also, increased attachment avoidance was correlated with increased identity diffusion; individuals higher in attachment avoidance may not want to learn about themselves (which would include their shortcomings as well as their strengths), thus retracting from serious identity achievement efforts and leading to the apathy and a lack of real concern for achieving a coherent identity (i.e., low to no exploration or commitment) characterizing identity-diffused states.

Contrary to hypotheses, the results indicated that a) both maternal and paternal attachment were directly correlated with identity foreclosure, but b) only maternal attachment was a unique predictor of the identity dimension. Although foreclosure is a state in which individuals have committed to identity aspects, it is not viewed the same as identity achievement. In fact, identity foreclosure is perceived to be an 'immature' identity status (Marcia, 1996), whereas secure parental attachment is characterized as a desirable, fundamental aspect of the parent-child relationship. Though research typically

supports the hypothesized relation, there is also evidence to support the present study's findings. Papini, Micka and Barnett (1989) found a direct relation between identity foreclosure and increased self-reports of family cohesion and communication in adolescents. These authors argued that this relation may be reflective not of an adaptive emotional bond but rather overenmeshment and decreased healthy separation from the parents. Similarly, Josselson (1987) found that individuals who were most securely attached to parents were identity foreclosed and most influenced by their perceptions of parents' expectations and desires. However, those who self-reported fewer attachment behaviours were categorized as identity-achieved and demonstrated a healthy level of parental separation (Josselson, 1987). It is possible, then, that the increases in self-reported maternal attachment were reflective of a relationship lacking healthy separation, where emerging adults foreclose to parental beliefs and roles without independent exploration.

To explore this seemingly counterintuitive finding in greater depth, the correlations between the maternal attachment sub-scales (i.e., the overall affective quality of the relationship, the use of parents as a source of support, and the use of parents as facilitators of independence) and identity foreclosure were examined. Examining these individual correlations indicated that, as one would expect, "facilitators of independence" was not significantly correlated with foreclosure. However, "affective quality" and "source of support" were both directly related to identity foreclosure.

- The *affective quality* questions reflected the emotional valence of the parent-child relationship (i.e., did the child feel positive or negative emotions after spending time with the parent?). Identity foreclosure could be related to increased affective

quality because of emerging adults' dependence upon the parent for happiness, comfort and relaxation. If emerging adults feel like they must meet the expectations of their parents (and so they commit to similar beliefs, values, etc.), then they may perceive the parental relationship as a positive one. This would reflect behaviours and cognitive processes similar to preoccupied individuals (who have a negative sense of self but a positive view of others).

- The *source of support* questions reflect whether the emerging adult looks to the parent for guidance and advice, and is able to confide in the parent when needed. Questions that centre on the emerging adult's propensity to work out problems on their own without discussion from others, is coded as a negative trait (instead of reflecting a positive quality in the attachment relationship). So, if the emerging adult indicates significant reliance on parents for their opinions and problem-solving strategies, it makes sense that he or she may also readily adopt their beliefs and roles in developing an identity. This too may be indicative of an insecure (preoccupied) attachment relationship rather than a healthy level of connection.

The link between higher scores on parental attachment and identity foreclosure may be related to the underlying information processing and decision-making style representative of identity foreclosure. Smits, Soenens, Luyckx, Duriez, Berzonsky and Goossens (2008) argued that foreclosed individuals are governed by a normative processing style, in which individuals rely upon others' expectations and norms to inform their decisions. In fact, Smits et al. (2008) found that more parental support (both parents) was positively related to this normative identity process (i.e., the information processing

and decision-making style typical of foreclosed individuals). Excessive reliance on the parent for support or emotional experiences may in turn motivate an individual to commit to identity elements without much consideration.

Guisinger and Blatt (1994) found that an increasing mature sense of self was contingent on interpersonal relationships. As the individual broadens their relationships to incorporate and depend upon others, his/her internal working models of attachment relationships may be activated, but the parent-child bond may not as relevant to an active identity search. Instead, other attachment relationships (i.e., peer, romantic, spiritual) may better explain variability in identity dimensions. With respect to the parental attachment – identity findings, the present results shed light on parents' role in identity formation, although they also underscore the need for further work on the link between attachment and identity processes (Mikulincer & Shaver, 2007).

5.4   Identity and Mental Health in Emerging Adulthood

Finally, the path between identity and mental health was explored in the proposed model. As the establishment of a coherent identity is an important psychosocial and developmental task for emerging adults, identity crises (i.e., diffusion, moratorium, foreclosure) could thus be a source of poorer mental health. Indeed, it has been proposed that before an individual can successfully integrate others into his or her life, he or she must first coalesce the breadth of experiences and perceptions into an identity (Erikson, 1950, 1966, 1968). Recent research (e.g., Côté, 2006; Graber & Brooks-Gunn, 1996) has extended the applicability of Erikson's theory into the twenties for many individuals in Western societies. For the present research, it was proposed that identity formation would

be relevant in a sample of emerging adults and would be predictive of variability in the mental health of this sample.

The results indicate that feelings of unachieved identities (i.e., diffusion and moratorium) were present in this emerging adult sample. Furthermore, the results support previous findings that increased identity achievement is related to increased mental health (e.g., de Goede et al., 1999; Frank et al., 1980; Helson & Srivastava, 2000; Offer et al., 1998; Wautier & Blume, 2004). Higher scores on diffusion and moratorium were related to lower scores of happiness and self-acceptance, and higher scores on emotional and behavioural distress. Conversely, higher identity achievement scores were related to higher happiness and self-acceptance scores, and lower distress scores.

Turning to the results of the multiple regression analyses, the identity variables were unique predictors of emerging adults' mental health in three ways. First, higher identity achievement scores predicted higher happiness scores. This result is in line with previous studies that have found a relation between an increased sense of well-being and increased identity achievement (e.g., de Goede et al., 1999; Luyckx et al., 2006). The present finding also supports research by Kahn, Zimmerman, Csikszentmihalyi and Getzels (1985), which found that identity achievement was predictive of later happiness and satisfaction. Indeed, achieving a sense of an identity could provide emerging adults with a better defined purpose and orientation for their lives, which may in turn produce greater happiness and fewer feelings of anxiety about the future. As well, the importance that emerging adults place on finding an identity may point to the importance of identity achievement in relation to their mental health.

The second identity-mental health path to be discussed is the finding that higher scores on identity moratorium predicted lower scores of self-acceptance. Certainly, it is logical that continued exploration of roles and opportunities would be predictive of emerging adults' fewer feelings of accepting themselves (as accepting the self would indicate that significant identity exploration is unlikely or unnecessary). Given the present findings, identity moratorium may be perceived negatively as an identity crisis (rather than a sound decision to actively explore the variety of options available to the individual; Crocetti, Rubini, Luyckx & Meeus, 2008). Specifically, Crocetti and colleagues (2008) found that identity crises were marked by low commitment to an identity coupled with high levels of reconsideration of identity commitments and intermediate levels of in-depth exploration. However, it should be considered that the reverse path also could be true; that is, fewer feelings of self-acceptance (perhaps carried over from adolescence) may compel emerging adults into prolonged identity exploration until suitable roles, beliefs and values are established.

Lastly, higher scores on identity diffusion predicted higher scores on the emotional and behavioural distress variable. This finding aligns with such research as Mikulincer and Shaver (2007), which indicated that identity diffusion is the least adaptive status with respect to healthy adult development. Indeed, a lack of commitment to an identity as well as no meaningful identity exploration can understandably predict increased feelings of distress (for example, negative affect and social withdrawal). For example, distress may result because of diffused emerging adults' feelings of being lost, especially amid societal expectations to "grow up", and comparisons with peers' progress into adulthood. However, there is again the possibility that distress could also be feeding

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back and perpetuating the diffusion state, dampening motivation to move beyond an identity diffusion state and into a state of increased exploration.

The remaining identity status – foreclosure – was included in the regression analyses but was not found to be a unique predictor of mental health. However, higher scores on identity foreclosure were correlated with lower scores on distress, similar to identity achievement-distress. Foreclosure is typically perceived as an immature identity status marked by premature commitment to an identity. Perhaps, though, the commitment to an identity – any identity – may provide greater security and ultimately less distress than someone who has not committed to an identity at all. Foreclosure may not be explicitly troubling for emerging adults as it gives them confidence in having "something".

Overall, the results of evaluating this path indicate that identity variables are relevant to the understanding of emerging adults' mental health. Identity diffusion and moratorium are related to poorer mental health as expected, while identity achievement is related and predictive of better mental health. Foreclosure is not predictive of mental health, but correlations indicate that perhaps the commitment to an identity may be "better than nothing". To better understand the results associated with each of the four identity statuses, consider the following: Individuals have many life areas in which to confirm an identity, as well as beliefs and values on different topics. With some of these areas or topics, emerging adults may be identity diffused – that is, they are not actively exploring or committing to an identity, and instead remain in a "limbo" state with respect to that aspect of their identity. Yet if those issues are nonetheless important for the emerging adults' identity, considerable distress may be experienced. In other areas,

emerging adults are in a state of moratorium and continue to explore options – these

reflect fewer feelings of self-acceptance. Emerging adults can also be foreclosed to other

identity aspects, having adopted or readily accepted their parents' points of view. And

still, emerging adults also show areas in which they are identity achieved, and this

predicts happiness. The goal for emerging adults to improve their mental health would be

to continue working on those areas that are diffused, or in a state of moratorium. As seen

with the previous discussion, feelings of moratorium are reduced in individuals who are

primarily employed and who have likely made certain commitments in order to move

forward with a particular career path. An area to prospectively explore may be how

identity statuses change as emerging adults progress through life, and the types of life

areas that are implicated in changing identity statuses.

5.5   Exploratory Question

Attachment relationship styles have been conceptualized as a set of discrete

categories or a variation on a series of dimensions. It was argued that dimensions (e.g.,

anxiety and avoidance, or overall parental attachment characteristics) were more

indicative of underlying attachment processes, and that categories were more useful as

"shorthand" to refer to different attachment styles. For the present research, potential

differences within a four category model of overall attachment styles (secure, fearful,

preoccupied, dismissing; Bartholomew, 1990) were explored with the emerging adult

sample.

The results indicated that the only differences between the four categories was on

a "mental health" variable, such that securely attached emerging adults experienced the

lowest levels of distress and the highest levels of positive mental health. These findings

are in line with a substantial literature on attachment and mental health, in which better mental health is found in securely attached individuals (e.g., Cooper, Shaver & Collins, 1998), and poorer mental health has been found with insecurely attached individuals (e.g., Lopez, Mitchell & Gormley, 2002).

When considering the other two sets of variables – parental attachment and identity formation – a possible explanation for the lack of differences may be attributed to the relation between mental health and overall attachment on support seeking, coping and regulatory behaviours. In other words, higher levels of mental health would be in part related to an individual's ability to cope and seek/receive support during stressful times, and the different attachment categories conceptualize fundamental differences on an individual's ability to seek support, cope with stress, and regulate emotion. The variability in the identity and parental attachment variables in relation to overall attachment may be better captured if one uses the underlying anxiety and avoidance dimensions. (Indeed, using the two general attachment scores permitted a deeper understanding of identity's relation to attachment and mental health, and provided helpful directions for future research.) Although the results to this exploratory question indicate that the four groups differ on mental health in a manner predictable from previous literature, they also underscore the importance of conceptualizing and measuring attachment relationships as dimensions.

The present quantitative results implicate the following themes to be explored in the qualitative study:

- Their adulthood status (e.g., do they consider themselves to be an adult yet?);

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- The processes involved in their search for an identity, and whether they are currently the person they want to be;

- The factors that influence mental health in a positive and negative manner; and

- The current need for parents, and how each parent contributes to identity formation and mental health.

CHAPTER 6

Method – Qualitative Study

6.1 Participants

During summer 2008, interview participants were recruited from a pool of interested candidates who, at the time of completing the quantitative study, indicated a willingness to be contacted for future participation. (The pool represented both university and community participants.) The present sample for the qualitative study was composed of 18 emerging adults[8] (13 females, 5 males), between the ages of 19 and 30 years (M_{age} = 23.07 years, SD = 3.52). Fourteen participants were from the university pool, and the other 4 were from the community pool. Of the entire sample, all were working with the majority of these being in full-time employment. However, when questioned, all except 1 university participant replied that employment status would change to part-time or no employment during the academic year. The average level of education for the entire sample was 14.1 years (range = 12 – 18 years).

Nine participants were still living with one (mother) or both parents, while 5 more lived with a spouse and/or children. When questioned about receiving financial support from one or both parents, 11 participants replied that they were no longer receiving money from their parents. Half of the participants considered themselves to be adults, while 6 more claimed that they were in transition towards adulthood and 3 participants did not believe that they were adults.

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[8] To determine if additional participants would be needed for the qualitative study, the principle of saturation (e.g., Morse, 1994) was applied. That is, interview transcripts are reviewed during the data collection process. When it is apparent that more interviews are no longer generating any new information around the questions, saturation is achieved.

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6.2 Materials

Several resources were used to create the semi-structured interview schedule (Lofland, 1974; Polit & Hungler, 1987):

- A previous semi-structured interview schedule used during the aforementioned pilot study conducted by Robinson and DiTommaso (2007);

- Results from the quantitative study that required greater exploration; and

- Existing theory and studies conducted on emerging adulthood (e.g., Dworkin, 2002; Kaimal, 2007).

Semi-structured interviews permit sufficient organization to guide the discussion, but they also leave enough opportunities for participants to introduce and explore issues that they consider relevant to the topics of interest. Before conducting the interviews, the schedule was first piloted on 4 participants ("purposive sampling", of 1 male and 1 female from each the university and the community groups; Glaser & Strauss, 1967) to ensure that the organization of questions and their wording were understood. Minor modifications were made based on their feedback to create the final interview schedule (Appendix R). Similar to the questionnaire package in the quantitative study, interview questions were primarily framed in the present tense in order to focus on present experiences, and to limit problems associated with extensive recall of past events.

6.3 Procedure

All interested candidates in the pool were emailed a letter that re-introduced them to the goals of the study, their previous interest in participating, and the opportunity to now participate again through an interview at UNB Saint John. The letter further informed the potential participants that they would be compensated for their participation (a reimbursement for travel costs to the university, and a $5 coffee gift certificate). Those

who were interested then arranged for an interview time with the primary investigator that was most convenient (day or evening, weekday or weekend). Those who did not reply after the initial contact, and those who did not reply at all, were emailed a reminder letter at 2 weeks, then another 3 weeks after that.

The interviews were conducted in a medium-sized room at the University of New Brunswick, Saint John campus. Upon arriving, the participant was made comfortable and the interview objectives were discussed. The participant then provided informed consent (Appendix S) before completing a brief demographics sheet (Appendix B), after which the interview would follow. Prior to beginning the interview questions, participants were alerted to their right to end participation at any time should questions be too difficult or emotional, or to their right to skip questions or change topics as needed. All interviews were audio-recorded by a small mp3 recorder (Panasonic RR-US750 mp3 recorder), the presence of which the participants were made aware. The mp3 recordings were then immediately backed up onto a secure computer following the interview.

On average, interviews lasted for 27:20 minutes (ranging from 13:01 – 42:23 minutes), and were dependent upon the participant's comfort level and willingness to divulge details. After the completion of each interview, time was spent debriefing the participants on their interview experience (Appendix T). A contact list was provided to the participants, containing the names and phone numbers for local counseling centres in the Greater Saint John area, contact information for the primary investigator, the dissertation supervisor and the chair of the Research Ethics Board. As well, relevant references to emerging adulthood literature were compiled and provided to the participants.

CHAPTER 7

Results and Discussion – Qualitative Study

7.1   Coding and Analyses of Transcripts

To code and analyze the interview material from the qualitative study, a thematic

analysis approach was used. This method was chosen because it is a useful, inductive

method of theory-building (Gray, 2004). Braun and Clarke (2006) propose several steps

to conducting thematic analysis; these steps will now be presented in turn.

- Familiarity with the data: as with any data set, it is important to first begin

  analysis by becoming familiar with its contents. For the present thematic analysis,

  this process began with a transcription of the audio recordings into scripts that

  relayed both non-verbal utterances (e.g., sighing, laughing), as well as a verbatim

  transcription of the interview. Non-verbal communication was translated into the

  text in order to provide a deeper context of the discussion for coding and analysis.

  All transcripts were checked against the original recordings as a final step before

  coding and analysis.

- Generation of initial codes: codes were a few words that would quickly parlay the

  features of the adjoining data, and permit their organization into logical

  groupings. In the present study, the codes (and subsequent themes) were data-

  driven – it was of interest for the present study to see what new information could

  come from the interviews that could then be related back to existing literature and

  the models tested in the quantitative study. However, coding of the transcripts

  focused on fleshing out the four topics that formulated the interview schedule:

  emerging adulthood, identity, parental relationships, and mental health. Several

readings of each transcript were conducted to ensure that as much detail as possible was optimally coded and captured. Small units of text (e.g., a few words) as well as larger segments (e.g., a paragraph) were equally coded so long as they related back to the one of the four topics. Items were coded also if they appeared to form the basis of repeated patterns or themes.

- Collating codes into themes: the codes were then all gathered and organized loosely into potential themes. Codes were then organized within the particular themes. Early visual representations of the themes (thematic maps) assisted in depicting the main themes and possible sub-themes.

- Reviewing themes: then, a review was conducted to check that the themes fit the data set or if refinements need to be made. The review also looks at whether the codes are coherent enough under the themes, or if there is too much diversity to support the theme. At this point, recoding of any additional data that was missed is completed.

- Defining and naming themes: further refinement takes place and an analysis of the data within the theme is undertaken. Clear definitions and names for each theme are created. At this point, a final thematic map to visually depict the themes was generated (Figure 6).

7.2   Emerging Adulthood: What's Involved?

The Transition to Adulthood

In the present interviews, a considerable amount of time was spent by participants discussing their experiences with emerging adulthood: how participants felt about the relationships and

Figure 6.

Concept Map for Qualitative Study
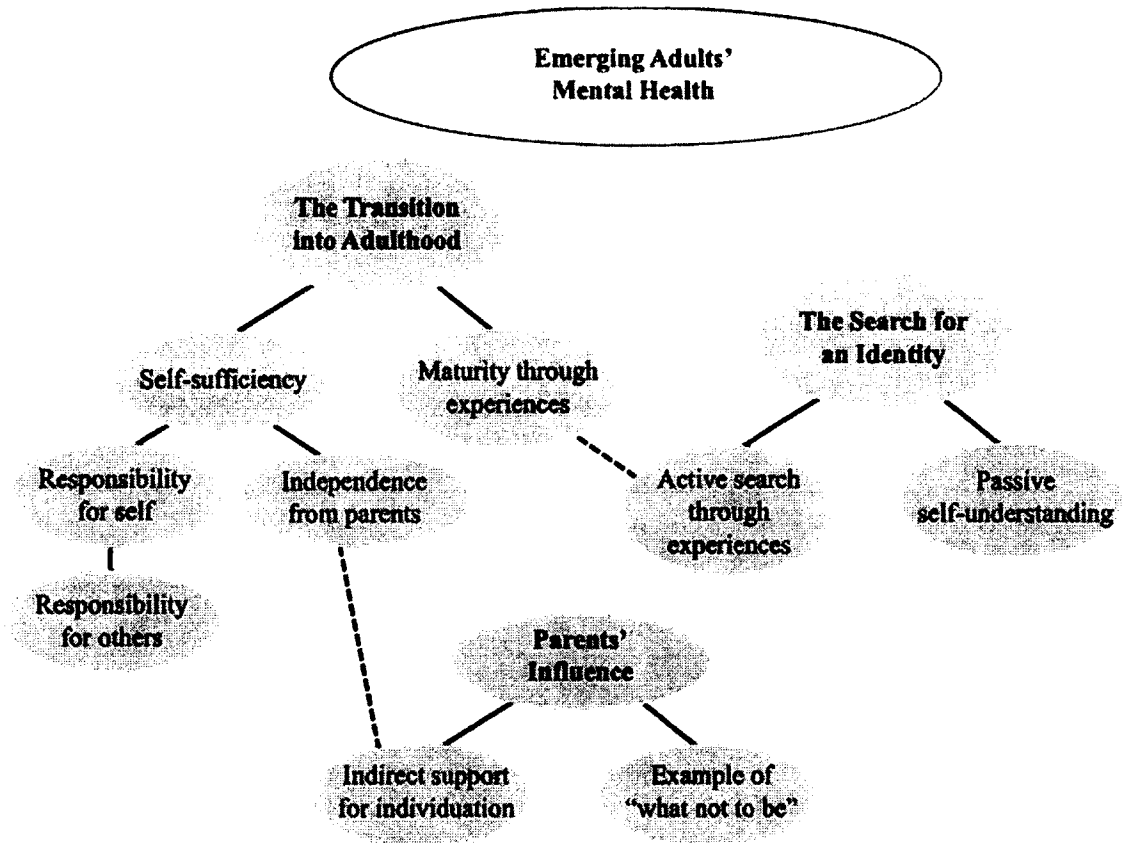
experiences in their lives, and how they viewed the transition towards greater

understanding of their place in life. When examining the transcripts, discussion about this

stage in their lives also involved two themes. Similar to Arnett (2001), participants saw

the increased development and maintenance of a sense of *responsibility for themselves*

and for others coupled with *independence from parents* as an important marker of

adulthood. However, participants also noted that as they aged, they *gained maturity*

through the accumulation of experiences (the nature of which varied for each individual).

Becoming a Self-Sufficient Individual

> "...they pay the bills...they feed me, they, they do, you know, I do some
> stuff of course, but I, I feel they do the, they take care of me still and I
> think once you start taking care of yourself more so, then you become an
> adult, I guess." #12

Participants primarily discussed emerging into adulthood as the development of

self-sufficiency: achieving a sense of responsibility for themselves and for others coupled

with independence on all levels. When discussing this theme in the interviews, the

participants would highlight particular tasks undertaken to achieve this self-sufficiency;

for example, activities that would involve a demonstration of organization and control

over their own lives (e.g., doing chores, taking on a job, attending school, whether or not

they are still at home) and the acceptance of responsibility for the direction taken in their

lives. The overall goal for the emerging adult was to become a successful manager of the

diverse components of their lives and to translate all of this into their desired outcomes.

Arnett (2000, 2001) cited the achievement of financial independence as one of the

two markers of adulthood. Financial support from parents was seen here as a necessary

contributor to achieving goals (e.g., enabling emerging adults to complete an education

that in turn permits a career), and the attainment of financial independence from parents

was an essential aspect of self-identifying as an adult. In the above excerpt, participant #12 does not consider himself to be an adult just yet. Although he can partition out the responsibilities that he currently maintains (chores, household duties), he also recognizes that his parents still take care of him by paying bills and providing instrumental support (e.g., meals). Throughout many interviews like this one, the concept of money or paying bills is a central component to being an adult: children need their parents to pay the bills, whereas adults are capable of doing this themselves.

Finances were also important to those participants self-identifying as "working towards adulthood" or being "mostly an adult", and the inability to have complete financial and instrumental self-sufficiency was viewed as the key ingredient holding them back. For example, participant #2 noted that he considered himself to be an adult with the exception of his inability to make himself a living (a step prevented by his current enrolment in university) and the other characteristics of being a self-sufficient adult that hinged on this one factor:

> "Because under my definition of an adult is posed the person who can pretty much like, make yourself a living? But right now, I can't make myself a living, because I'm studying full time at university…and it's, you know, really hard to get a permanent job, permanent place…pay your bills and that kind of thing" - #2

Thus, for these emerging adults, being able to make a living for themselves and end their reliance on parents to supplement or provide that income was the key obstacle in achieving adulthood. However, future work needs to distinguish between unmotivated emerging adults who enjoy the prolonged comforts of the parental home, and emerging adults who cannot wait for the independence but feel "trapped" by the need for an education that will give them the access to desired careers. As witnessed here, the

moratorium supported by Western societies and resulting extended reliance on parents may not be viewed as advantageous as some critics of emerging adults would believe. For example, when participant #6 was asked when she thought she would become an adult, her reply was one of annoyance with the circumstances tempered with an awareness of an advantage:

> "Probably when I graduate university and I get a real job...when I start my career...when I get to move out...and can really stand on my own...that's how I feel. I'm like, in transition, kind of stuck in that place, between a child and an adult? Sometimes it's frustrating...I kinda just want to get on with life...but at the same time, like I've said, I've got it pretty good, I can go out, do what I want...and then I can come home and supper's on the table..." #6

Indeed, the perceptions and mixed feelings on continued parental dependence was echoed across the interviews and is of interest when considering potential influences on emerging adults' mental health. Depending upon the perception of their circumstances – whether it is seen as a luxury to be enjoyed for as long as possible, or as another annoying delay in growing up – their mental health may be affected accordingly. As such, investigations into perceptions and different strategies employed by the emerging adult to deal with the transition from adolescence to adulthood are needed.

Indirect sources of financial and instrumental support can also be seen as a barrier to achieving adulthood, or as irrelevant, depending on the circumstances. For some, leaving the parental home was an important step because it implies that the parents have stopped paying for the emerging adult's expenses ("...I consider myself an adult once I've move out, you know..." #12). However, it may be a question of where the emerging adult moves: are they living on their own or establishing a family with a spouse as a self-sufficient individual, or are they still in need of this type of parental support regardless

where they live? When asked about becoming an adult, participant #9 recalls leaving his parents to live with roommates at university, only to return mere months after the start of school to ask for money:

> "... The first year I was, still, uh, still very kid-like, because I blew through all of my money really quickly...I blew through all that very quickly and then bills start coming in and I was like, 'Oh, I should pay these'...it basically changed me completely, because I had to go back, when I moved out I thought I had independence but I had to go back and ask my parents for help..." #9

In contrast, living at the parental home may not be indicative of a lack of self-sufficiency per se, as parents may not pay for everything but still provide a low-cost rental situation for their children attending school or looking for more stable work. For #7, she considered herself to be an adult, as she is independent from the parents but rents out their basement apartment:

> "... I think, I dunno, I kinda feel that after I graduated, my parents stopped paying for everything...yeah, pretty much I just kinda do my own thing, I live with them but...I'm responsible for everything, I guess..."(*laughs*) #7

With regards to living at home, the interviews illustrated the reason for which it is important to consider processes of emerging adult rather than simple demographic markers. For example, with participants #7 and #9, the location of living was not as important in defining adulthood status as was the process of achieving financial and instrumental independence from the parents.

Finally, the process of gaining self-sufficiency and independence to become an adult did not entirely center on the quest for financial responsibility. As seen in the excerpt with #12 and in the following excerpt with #5, being able to "take care" of another individual implies another layer of responsibility: the individual would have to be responsible for their own lives to then be responsible for others around them. The gaining

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of responsibility may be then seen as an increasing development of an Adlerian social interest (Ansbacher & Ansbacher, 1956), from adolescents, to emerging adults learning to pay for things to achieve a bigger picture of overall life management and responsibility, to adults who orient their management skills and concern successfully towards others. One hint at this process is that taking care of another individual forces the emerging adult to "grow up"; because "...you're actually supporting somebody else, that kind of makes you grow up real fast and you're an adult at that point" (#17):

> It's just like more respon- it's not just paying your own bills, because you pay your own bills when you are younger, too...depending on what you have, but um, the responsibility of having a home to take care of and to have, like, well, if you do have like, a partner, and to like take care of them if need be and just um, figuring your own schedule out and your, like, own responsibilities...more responsibilities in general? Like your bills, but when you have to keeping your house maintained and going to your job everyday and keeping balance of your money..." #5

In summary, this first criterion of adulthood – becoming a self-sufficient adult – has many embedded elements. It is important to achieve a financial independence from the parents. However, this may be blocked by the realities of Western society (where an undergraduate degree is now an essential education base needed for employment), or it may be clouded by markers such as living situation. The next step in becoming a self-sufficient adult also entails the direction of social interest towards others.

Maturity – The Accumulation of Experiences

> "Um, I think particular milestones in, in my idea of what an adult is, where you reach, I guess, a certain, um, a certain level of wisdom where you feel comfortable, where you feel mature..." #8

Previous research has indicated that there are significant delays in the transition into adulthood (Graber & Brooks-Gunn, 1996), and as such age is not an adequate indicator of adulthood status (Arnett, 2001). For these participants, adulthood is also a

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matter of achieving maturity through their varied experiences. At first glance, many participants indicated milestones as indicative of their adulthood status (e.g., finishing school, leaving the home, and gaining financial independence). Additionally, a few individuals believed that they would be adults by a certain age. With deeper probing through the interviews, milestones and age were more about the accumulation of experiences over time. For those citing an age as a marker of adulthood, that number was picked because they believed that by then, they would accomplish the experiences necessary to achieve adulthood.

In addition to gaining responsibilities and independence from others, participants also acquired a general wisdom and knowledge to make decisions about the future and to learn from past mistakes. When asked for the time at which they became adults, many participants could not name a single point in time (e.g., an age or an event) that ushered them into adulthood. Instead, this was a transition that varied in the content of experiences, but was more or less a gradual process:

> "It's kind of been gradual...like when I was, probably when I graduated from high school, I thought I was an adult...and then I quickly realized that no, I'm not, not really...um, yeah, kind of once you get out on your own, because when I first started university, I kinda had to start doing things by myself..." #6

In the above quote, participant #6 noticed that she "had to start doing things by [her]self" – implying that the acquisition of responsibilities was a gradual process that soon demonstrated to them just how much was involved in becoming an adult. As their initial assumptions over what they thought it meant to be an adult had to be re-examined, participants realized the gradual process of achieving adulthood. Again, it is not the simple tally of experiences completed but the quality of experiences endured. As the interview excerpt with participant #18 illustrates, moving out of the parental home was

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not enough to become an adult; it took a process of gaining maturity before she truly felt that she had arrived:

> "(*sighs, laughs*) I think I thought myself to be an adult longer than I technically was (*laughs*)...I think I did at 17 when I left I was far away...I was 1000s of miles away from my parents and being independent, so I would have considered myself an adult, but I don't think I really matured...I think those are two different things...17 – you think you know everything...it was definitely independent, definitely independent but as far as understanding myself...as an adult, I don't think that was until much later." #18

This point illustrates that a commonly accepted marker of adulthood (moving out of the parental home) may not necessarily equate to responsibility, independence from parents and maturity. This does not mean, however, that a younger age precludes an emerging adult from reaching adulthood quickly:

- Two 18-year-olds in the present sample self-identified differently as adults: one girl (#14) saw herself as an adult because experiences with a younger brother battling a terminal illness as the impetus to learn coping strategies and self-sufficiency; the other (#16) did not believe she was an adult, despite having several popular markers of adulthood (e.g., marriage, home ownership) and an experience with a terminally ill relative.

- Another example is that of #17, who was 23 but figured by age 25, she would finish her partying with friends and become an adult. Contrast this with participant #9, who recalled similar partying that quickly forced responsibilities on him when he ran out of his student loan funds.

Unlike earlier years, present-day emerging adults do not experience the same societal pressures to settle into adult roles (e.g., take on a marriage, home and family) immediately after high school (Côté, 2006). Again, the example of maturity illustrates

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why it is important for future emerging adulthood research to examine the processes that differentiate and underlie common demographic markers. What makes one mature and thus closer to adulthood was the lessons learned and the coping skills gained.

Maturity was not necessarily a wholly distinct process from the theme of responsibility. Indeed, there was considerable overlap during the interviews as the participants had to weave in and out of the two topics. Often, when one would talk about becoming responsible, the experiences that took place to gain that self-sufficiency would be referenced. Likewise, gaining wisdom is important to being ready to accept responsibility. The excerpt with #18 brings to light the possibility that independence and maturity were distinct: although parental independence can force emerging adults into taking care of themselves, household management, etc., the self-understanding gained from maturity parlays into broader moves towards a desired career, relationships and in general the life that best fits their forming identity. The challenge with using self-sufficiency and maturity as markers of adulthood is to separate them from their associated demographic markers.

7.3   The Search for an Identity

I have a better idea now of that than I did ten years ago. That's for sure! (*laughs*) #8

Self-knowledge is an important part of making adult decisions and having the confidence to take on increasing responsibilities. Interwoven through the discussion on what it meant to be an adult was a dialogue about the importance of finding themselves and the associated difficulties of discussing their identities.

In the quantitative study, higher scores of identity achievement, and lower scores of diffusion and moratorium, were found to predict better mental health. In the

interviews, it was apparent that identity was an emotional, sometimes difficult, topic for the participants to explore. Since identity formation processes are fundamental to characterizing emerging adulthood, it is perhaps not surprising that identity was not an easily discussable topic for the participants. There are several possibilities for this difficulty:

- Identity is a salient and important concept in emerging adulthood, but the difficulties around finding a suitable self are emotional and distressing for individuals;

- Although identity is an important concept, it is not a salient one – emerging adults do not consciously view their experiences as life altering until it is brought to their attention;

- The search for an identity was not finished for many at the time of the interviews, and it was difficult to comment on an incomplete process; or

- Identity is not as central of a concept as originally thought, so it is not a conscious process.

From the dialogue with the present interview participants, it appears that identity is a process more aligned with one of the first three points. Some of the participants indicated that they had not given identity much thought prior to the interview, hence the difficulty in discussing identity in any detail. Others (e.g., Participant #4) could talk about their search for a suitable identity but found it to be an emotionally difficult process to consider and discuss. In the case of participant #4, it appeared that identity and mental health influenced each other: as her search for an identity (e.g., finding a suitable peer group for interpersonal exploration) grew unsuccessful, feelings of sadness and loneliness

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increased, which in turn led the participant to make certain choices in her continued search for a sense of self:

> "...and when, I like to move into residence this year, I was, like, well, obviously the way to go about making friends is to drink my face off and become an ass...so, I did that and all, I just met the kind of people who wanted to drink their faces off and be asses...and I still wasn't happy." - #4

Finally, the third point in the above list was also demonstrated in several other interviews, in which participants stated that with so much left in life to learn in order to achieve an identity, it was impossible to put to words what they had accomplished so far ("...I think, well, I think when you're a person, like, you're going to change constantly, so I don't think, I'm way too young to know that right now"; #10). Or, participants noted that it was difficult to identify one particular process that led to their identity development ("...I don't know, I don't, if I would have specific examples for that...it just seems like that it's a culmination of lots of little things"; #9). As participant #11 articulates, identity is a highly individual progression towards coherence, united by similar processes:

> "...I, I think that's a hard thing to define...(*pauses*) – I mean, you have to really think who you are and in, in, in your, from your life and how you're different from one person to another, so...I say we all have similar things, but we're different in what makes us unique." - #11

The underlying processes identified in the interviews that were shared amongst the emerging adults were the accumulation of direct and indirect experiences (and, embedded in this theme, the self-awareness of what the individual wanted in life, such as likes and dislikes).

Indirect and Direct Accumulation of Experiences

> "...I know all about my personal aspects, I know what traits and qualities I might have and what my downsides are, I know what's...I know what's wrong with me, what I need to improve and all that...I think that I, I know people perceive of me and think of me and... overall, I think I know myself fairly well...there's probably a few things that I don't know about myself..." #12

Whereas most participants had generally greater difficulty in talking about their identities, they displayed greater ease discussing the development of interests, likes and dislikes. In fact, some time was spent in many of the interviews in which participants described themselves with lists of pastimes and adjectives in order to paint a picture of the self. Through these discussions, two processes were implicated in gaining this self-knowledge: a *passive gathering of self-understanding* through activities such as self-reflection, and an *active search for self-knowledge* through immersing in experiences. With regards to the former, participants referred to knowledge that they carried with them from experiences in adolescence, while others also reported the value in spending time alone engaging in introspection as an important source of self-knowledge. Taking the time to reflect on preferences and interests also implied a sense of caution and a fear of rushing into decisions without considering the consequences (an important point in exploring and committing to an identity).

A more significant part of identity discussion involved the exploration of important interactions with new people, places and ideas as a critical ingredient to identity formation ("...keep learning about myself...well, surround myself with, um, my friends...and finally, you realize who you are...who you want to be with and...where you want to go down the road." #17). Participants engaged in a constant comparison with others in which they observed others' perspectives on the world and decided how those

points of view fit into their developing identities. This process involved not only the observation of what others are doing with their lives, and their compatibility with changing of peer groups, but also an active process of trying out different activities to expand on their interests. Some examples involved meeting new people through school, work or travel, learning new worldviews and evaluating those positions through discussion and argument, or simply "hanging out".

> "...and then I've got different groups of friends who all are, they're very different? So, they've each helped me explore different things about myself, that...I like, and maybe not like so much." #6

The accumulation of experiences is primarily about integrating pieces of the self into a coherent whole – weighing them against existing beliefs and understanding, and revising as needed, as many said there was so much to learn in the world. This integration and use of comparisons is illustrative of the quantitative discussion on identity, in which it was proposed that social comparisons and peer relationships may be more influential in identity formation.

Overall, the interviews were reflective of previous identity research. Specifically, several studies have found that identity exploration is a combination of both intrapersonal exploration (i.e., processes related to self-reflection and introspection), and interpersonal exploration (i.e., processes of comparing the developing identity to new points of view and possibilities) (Benson et al., 1992; Berman et al., 2006; Faber et al., 2003). As participant #18 stated in response to being happier now than in her early 20's: "...[relationships] makes a difference, my life easier...but no, nothing, I think it's just my level of maturity and understanding of myself makes it happy." It would be important to next have a better understanding of why emerging adults had difficulty in discussing their

search for an identity. As mentioned earlier, it may be related to the discrepancies in what the emerging adult perceives should be their "normal" development and identity formation in comparison to their cohorts.

One interesting point of exploration on this note would be in relation to the burgeoning use of social networking sites, where comparisons can be made readily by quickly checking others' postings on the sites. For example, Pempek, Yermolayeva, and Calvert (2009) found that college students used one social networking site (Facebook) to express and shape their personal identity through preferred activities and interests, and photos posted to the site, as well as through the receipt of feedback from peers on these identity elements. However, it would be of interest to emerging adult identity research to pursue the questions: what is emerging adults' perceptions of their identities before and after accessing these sites; how does the information learned motivate their search for an identity; and, how does this information alter their mental health status, if at all? Given the emotional context the interviews provide to understanding this path, comparisons with peers and perceptions on their development may be a very fruitful line of research. Certainly, emerging adults continue to exhibit that feeling of "wanting to be seen as normal" in an increasingly heterogeneous and boundless stage of development. Understanding the importance of this to emerging adults' identity and mental health would be informative for counseling and coaching emerging adults.

7.4   Parental Relationships with Emerging Adults

"...she says you have to figure it out yourself..." – #5

Originally, it was argued that the detachment and individuation process was overemphasized in previous literature and that, given the increased financial and instrumental involvement and close proximity of exposure to parents during this time

period, emerging adults would work more closely with the parents to do the identity

work. However, the overwhelming theme was that parents encouraged emerging adults to

learn on their own (which can be communicated positively, by continuing to offer support

to emerging adults should things go wrong; or negatively, as parents insist upon leaving it

up to their children to figure it out on their own). Indeed, it became apparent during the

interviews that parents did not have a critical, direct role in identity development at this

time in these participants' lives:

> "Oh, my parents helped a lot...but, they do it not in a very obvious,
> 'I'm guiding you, here's what to do with your life?'...they kinda tried
> to let me figure it out on my own, but they, if they think I'm really
> going down the wrong path they'll be like whoa, whoa, whoa whoa..."
> - #6

Rather than explicitly telling their children what values, beliefs and behaviours

should be adopted by their growing identities, parents may take a back seat to the

direction of identity formation. The relationship with parents was supportive of exploring

different perspectives, but they rarely would have a direct influence on the process. This

sample of emerging adults illuminates an observation made in the quantitative study –

that parents may not be as involved in healthy exploration and commitment as a

continued attachment would implicate, because there is a message (whether explicitly

communicated or otherwise) that emerging adults need to figure it out by themselves with

minimal input from the parents. The difficulty of verbalizing the exact nature of parents'

contribution to identity formation may also be illustrative of the indirect influence on

emerging adults. Further, if the parents are too involved in the process, the emerging

adult would simply adopt the desired characteristics of the parents with little

consideration – or in other words, they would be identity foreclosed:

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"...(*pauses*) I think the only way you can help someone find out who they are is just to let them do it themselves, you know?...like, I don't think, I think if you are too overbearing, like they're not going to find out who they are, they are just going to find out who you want them to be." – #1

As seen in the previous section, emerging adults define part of achieving adulthood as being financially capable of leaving the parental home. Levinson et al. (1978) argued that both physical and emotional separation was important for identity achievement from parents. Physical separation is, in part, important to becoming an adult, although it may not be the simple separation that is the key. Emotional separation, however, is a different story. Meeus and colleagues (2002) found that increased exploration of identities was related to security of the attachment bond. Although emotional support was still important to many participants – being able to seek advice and guidance from parents, or knowing that the parents were still there for them if needed – the results from both the quantitative and the qualitative studies indicated that the emotional attachment bond was not *directly* relevant to the search for an identity. In other words, the identity formation process was being supported by indirect parental emotional support (i.e., knowing that the parents are a secure base during identity formation), and not by the more direct emotional interactions discussed in the parental attachment questionnaires. When measuring the level of involvement in the emerging adults' lives, a moderate score may be more indicative of a healthy identity formation process, whereas higher levels of involvement may be related to foreclosing and simply finding out who the parents wanted them to be. Given this context, it is unsurprising then that the proposed mediational model was not supported in the quantitative research.

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This again leads to the question of emerging adults' perceptions of the identity formation process – do they view the encouragement for individuation with minimal parental involvement as a welcome opportunity, or do they feel that they need more direct input to establish their identities but are unable to ask for it? Undoubtedly, the existing attachment bond would temper these perceptions. Securely attached individuals may exhibit some apprehension at forging a path in the "real world", but know that the process is their own and is supported by parents at arms-length. Someone who exhibits a great deal of attachment anxiety may view the indirect approach to establishing his or her identity as a negative and confusing experience (and in some extremes, perhaps tantamount to abandonment by the parents). A highly avoidant individual may not see the separation from parents as a negative experience per se, as he or she is already at an emotional distance from the parents. The perception of this experience is an interesting point to explore in greater detail, as it will not only support the notion that parental attachment is still important to identity formation, but that emotional appraisals and cognitive interpretations of parental relationships, identity formation and emerging adulthood play an integral part to emerging adults' mental health.

The interview participants were questioned not only about the parental input into identity formation. One of the original interests in assessing the roles of mothers and fathers separately was the differential influence of each parent on identity formation, as previous research has been inconsistent and/or underemphasized in the literature. In both studies, very few differences between the maternal and the paternal figures were found. Although separate questions were asked about each parent in the interviews, most participants would reply that both parents had an influence on emerging adulthood and

mental health, or that their styles effectively complemented each other. This begs the question: are there truly differences between the two parents' influence on emerging adults (and it is merely overshadowed by the salience of the maternal relationship; Robinson & DiTommaso, 2007), or is there no difference between the parents? The participants were aware of where parents would provide their input but that they try to avoid interfering unless they felt that their children were truly going down the wrong path. And the participants were not necessarily in disagreement over this level of interaction over their lives. Yet, because the influence was, in a sense, indirect, it was very difficult for participants to cite any specific examples of parental influence (for either parent) on identity development. Parents would provide support for the efforts of their children in many ways: primarily financial and instrumental (to support the level of self-sufficiency already had by the participants) as well as emotional support ("...Even though I didn't finish high school, but she told me if I want to, I will make it...so she gave me that self-esteem...that I can make, do it if I wanted to..." – #13) and advice/guidance ("...pushing me to do what I like, because Dad stressed that, stressed to me, that he's in a profession now that he doesn't enjoy to do..." – #14):

> "...I learned everything the hard way by doing it, and seeing if it works or if it doesn't...very resistant to any advice that they give me or, until I well, I end up discovering that 'hey, that was the right advice the whole time", because I tried everything else and it didn't work...um, I think it's, they were really good about giving me my space, and letting me grow on my own, and maybe it wasn't a wise decision on their part because sometimes I feel pretty screwed up..." – #4

Interview questions may need to be even more specific in order to get participants to more readily consider each parent's role in the identity formation process. Instead of asking about how the parent influenced their search for a self (a general question aimed at

uncovering process), providing specific examples or giving interview participants ample time before the interviews to consider the topics may be needed to elicit more developed explorations.

Primarily, the participants discussed the parents' role in identity formation as a supportive albeit indirect one. A second smaller theme that was present in the data was the concept of directly learning from the parents' experiences, by means of understanding the self and learning what characteristics the participants *did not* want to become or adopt (e.g., Arnstein, 1980). In other words, "...growing in spite maybe not because...of them?" (participant #4). And as participant #7 illustrates, she recognizes the frustration of not knowing the next steps with greater precision, but also realizes that she has an advantage over previous decisions made by her mother: "I wish I knew with more certainty what I'd be doing in the future, but...I guess, I like, have to enjoy it...like my mom was kinda young when she had me...and I feel like I have to, like I don't want to be that..." Akin to the passive observation of others' paths, the participants would not only incorporate values, beliefs or attitudes of their parents that they liked, but they were also aware of what they did not like. Although they may have some difficulty in establishing positive aspects of their identity, the emerging adults may know with greater certainty the aspects that they do not like (in a stereotypical manner of not wanting to become their parents).

7.5 Summary

The factors that affect mental health can be grouped under various headings (psychological, biological, etc.), but the combination of factors is highly individual. As the interviews revealed, mental health was positively or negatively affected by family,

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friends, school and work, along with personal activities valued by the individual. However, the interviews indirectly hit upon the emotion associated primarily with finding an identity and the trials of emerging adulthood. Participants could describe and discuss parental relationships with relatively greater ease, but surprisingly the conversations around "who they were as a person" – the search for an identity – were difficult to articulate, required longer periods of thought, and were at times uncomfortable for some individuals. It seems that the emotion and value attached to the identity process, and how it relates to a larger view of the self, is reflective of how identity dimensions loaded onto the same construct as mental health variables. Perhaps for emerging adults, identity is an inseparable part of their mental health and the goal of greater self-understanding is a main source of happiness and well-being for this age group. Part of the impact of identity on mental health may be due to the interpretations and importance tied to achieving an identity, and these factors are certainly a future step to explore for a better understanding emerging adults' mental health.

CHAPTER 8

General Discussion

The present research evaluated a model of emerging adults' mental health, in which identity formation was proposed to mediate the path between current parental attachments and measures of well-being and distress. The quantitative study was conducted to evaluate this model as well as other specific hypotheses. The results indicate that, while most of the predictor and criterion variables were associated with each other in the expected direction, it was general attachment avoidance and anxiety, and identity formation, that predicted mental health, and not parental attachments. The qualitative research then revealed that parents are important figures in emerging adults' lives, but are considered by emerging adults interviewed to be indirect influences on identity formation. In the following sections of this chapter, theoretical implications, strengths and limitations of the present research, along with potential directions for future emerging adulthood research, will be discussed.

8.1 Theoretical Implications of the Present Research

Arnett (2001) argues that the achievement of adulthood is primarily characterized by two "events": the ability of an emerging adult to assume complete responsibility for his or her actions, and the achievement of independence from parental figures (e.g., making decisions, taking care of finances). The emerging adults in the present research described their transition into adulthood in a manner consistent with Arnett's (2001) contention of the perceived importance of achieving self-sufficiency and responsibility for others, along with the view that continued instrumental and financial reliance on parents is a key barrier to achieving adulthood. Furthermore, the variety of experiences

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expressed in the demographic information of the present sample are indicative of Arnett's

(2001) point that emerging adulthood is not a limited series of events to achieve (e.g.,

marriage), but a highly individual process that makes it difficult to determine where an

individual stands in his/her transition to young adulthood.

The present research also contributes to emerging adulthood research by

examining one of the key processes (identity formation) underlying this developmental

phase. Erikson (1966) originally postulated that the psychosocial crisis of identity versus

role confusion is faced during adolescence, and must be successfully resolved before

assuming intimate romantic and social partnerships as adults. The present research did

not examine prospectively the progression from emerging adults' identity crises to

intimate relationship formation, but it is logical in theory that, to be healthy in an intimate

relationship with another person, self-knowledge and security in an identity is important.

However, individuals' identities likely incorporate current and/or past conceptions of

romantic relationship experiences, so it would be important to understand if Erikson's

proposed progression is truly a linear one. Nonetheless, it would appear that identity

formation is an active process for many (if not all) of the emerging adults in the present

sample, and that this process is predictive of some aspects of their mental health. Further,

for many of these emerging adults, the mere presence of unachieved identity states and its

relation to poorer mental health is indicative of the identity "crises" previously attributed

to adolescence. As well, some emerging adults in the present research found it emotional

and difficult to discuss their own identity formation. Certainly, Western society places a

premium on knowing the self and developing into a unique and autonomous individual.

Whether or not this process is so dire as to call it a crisis, however, is likely dependent on

the individual's own experiences. Nonetheless, adjusting Erikson's original premise to assert that the adolescent identity crisis state is faced well into the twenties is a fair assumption made by Arnett and colleagues.

Perhaps more informative to the emerging adulthood and mental health literature, the present research examines the role of parents as facilitators and supports to the exploration and commitment to adult roles. Given the increased reliance on parents for financial and/or instrumental support, the overall continued emotional importance of parents to both sub-samples, and the references to other relationships (e.g., peer) as direct contributors to identity formation, the present research revealed that parents are an important, albeit indirect, facilitator of the identity search process in emerging adulthood. Indeed, it is through parents that children are initially exposed to the external world, new ideas, belief systems, and are a comparative basis for the development and maintenance of relationships. Not unlike a 'Strange Situation', parents' presence was an indirect yet emotionally supportive presence in this sample's identity search. In infants, Ainsworth and colleagues (1978) demonstrated various styles of attachment in which securely attached infants would learn early to keep the caregiver readily accessible, as they departed for explorations of the immediate environment. As children age, this environment grows immensely, and in emerging adulthood, the possible "environments" and areas for exploration are endless. Securely attached emerging adults may use the parents as the secure base and perceive the prolonged necessity of parents' instrumental or financial support as a necessary step. Anxiously attached emerging adults may rely too heavily on the parental home for security and demonstrate reluctance to engage in active exploration. Finally, avoidant individuals may be the quickest to leave but not necessarily

prepared emotionally to do so. The conception of what constitutes support for emerging adults may also be expanded as their environments expand (i.e., instrumental and financial support). It is not the support that one would expect between caregivers and infants, but is rather support offered in the form of money, advice, emotional support, etc., that provides a background for the more active identity work.

Through repeated interactions, infants eventually learn whether or not they can trust and depend upon their primary caregivers to meet their needs; an attachment forms as a result (Bowlby, 1988). As an emerging adult, learning whether or not they can trust their parents to be there for them upon reunion is important support for exploration in emerging adulthood. The indirect involvement of parents, then, may indeed be a form of a 'Strange Situation', with the important task of facing the Eriksonian identity crisis largely resolved outside of the parents' immediate input or presence. Yet, there is a recognition that parents are still there for them if needed, and the guidance is offered at a distance. Although parental attachments in the present research were correlated with emerging adults' mental health, a next step would be to focus on more direct influences of mental health as emerging adults explore their worlds away from their secure bases.

8.2 Evaluating the Present Research: Strengths, Limitations and Future Work

Research Design

First, the present research extends previous work on emerging adults' mental health by using multiple methods of inquiry to answer the research questions. Yet each of the methods is not without its limitations. The use of questionnaires can be subject to response bias and participant fatigue. However, questionnaire length was considered in the questionnaire design and choice of variables; previous experience in researching attachment and mental health with this population indicates that approximately 300

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questions is the limit to participants' response tolerance. Interviews provide the

opportunity to explore findings beyond the initial responses of the participants, thus

allowing for immediate follow-up questions should the interviewer need to pursue a

particular response. However, participants may not be as forthcoming with their

responses due to sensitivity in discussing mental health, relationships with parents, or

their search for greater self-understanding – especially with a stranger. In that sense, the

responses from these interviews may be more guarded and underestimate some of the

relationships discussed. Nonetheless, it is arguable that the decision to use a mixed

methods design to explore the research questions, versus one approach, is a strength of

the present research, as each method complements the other's limitations and offers

another perspective with which to corroborate the findings. When resources permit,

future research should generally incorporate multiple methods to explore emerging

adulthood.

Another point with respect to research design is that the present research tested

the mediational model through correlational research, and not in an experimental manner

that would help to establish cause and effect. Although conducting experiments that

manipulate aspects of parental attachment, identity or mental health would likely be

challenging, another option to better establish the timing of processes in the model would

be longitudinal research. For example, one of the questions posed by the present research

is with respect to the differences on identity moratorium between post-secondary and

employed individuals – and whether the lower scores on moratorium indicate that

employed individuals have sufficiently completed their exploration (or, if it will be

revisited in the future). Although the level of resources required for longitudinal work

often present a barrier, some research has examined transitions into adulthood using longitudinal methods (e.g., Bell & Lee, 2008; Blonigen, Carlson, Hicks, Iacono & Krueger, 2008; Kotrba, 2008). Moving forward from the present research, a study that tracks emerging adults prior to high school graduation and at several points throughout the twenties, and that measures changes in identity formation, the relevancy of parental, peer and other attachments, and mental health, would better inform the understanding of "emerging into adulthood".

Sampling

Another strength of the present research was the decision to include employed individuals in the sample, as many of the studies cited in the literature review (Chapter 2) on emerging adulthood and the variables of interest used only samples of undergraduate university students. The present sample should be considered in light of the fact that it was self-selected by those individuals responding to posters at the university or in the community. However, using both university students and community members ensured that the participants held a diversity of educational and employment experiences, and that the attachment, identity and mental health variables could be examined with these contextual factors taken into account. Thus, the present sample was an improvement upon a university-only sample. With respect to sampling, future research efforts should attempt to increase the generalizability by incorporating non-university students into their samples, as well as to access individuals who go directly to work after high school graduation.

Measuring Parental Attachments

Looking to the measurement of parental attachment, the present research

improved upon previous work by attempting to measure current parental attachments, and

to differentiate between maternal and paternal attachment. The questionnaire scores and

interviews indicate the presence of good parental attachments and the relevancy of the

parental relationship in emerging adults' lives, but it is perhaps not as central as other

relationships. Future research should evaluate the relevancy of other attachments to the

present model. For example, peer attachments should be tested because of the potential

direct influence that peer relationships may have for emerging adults' identity formation

and mental health. Romantic attachments could also be included to evaluate their relation

with identity formation, in the context of Erikson's (1966) proposition that emerging

adults must successfully resolve their identity "crisis" before incorporating romantic

partners into their lives. Or, it may be the case that parental attachments influence identity

formation and mental health through another variable. For example, self-efficacy (e.g.,

Bilgin & Akkapulu, 2007; Mason, 2005) has been shown to significantly correlate with

parental attachments. The latter is logical since confidence and security in the ability to

achieve a task would be related to previous experiences in exploring the environment and

developing a positive conception of the self.

Furthermore with respect to parental attachments in the present research, there

were difficulties in distinguishing between maternal and paternal contributions. This

independent model of parental attachments, in which each parent is hypothesized to have

a differential influence on their children, has been supported in recent research (Liu,

2008). However, the present results are reflective of many studies in the literature where

maternal attachments emerge as the only significant predictor in comparison to paternal attachment, despite patterns of association that indicate links between paternal attachments and other variables. The question is whether or not the maternal attachment is actually the most important attachment relationship for emerging adults, and thus overshadows any independent contribution made by paternal attachments. Or, is there a greater likelihood that many emerging adults of this generation had stay-at-home mothers acting as the primary caregiver and thus, questions about parental relationships are immediately deferred to maternal bonds? As discussed in Chapter 2, the differential relations to identity formation and mental health between maternal and paternal attachment is difficult to ascertain, but is important to attempt to measure. To determine the exact nature of maternal and paternal contributions and best direct the course of future work, parental differences should continue to be assessed, while a meta-analysis of parental attachment research in emerging adult would evaluate the accumulation of findings to date.

Measuring Mental Health

Including a combination of positive and negative variables in measuring mental health is recognized to provide richer data than simply measuring a singular dimension of mental health. Variables were chosen for the present research with the purpose of creating a broad conceptualization of mental health, but other variables may be important for inclusion in future research (e.g., environmental mastery and competence of one's life, as measured in the Ryff, 1989 model). As well, the relation between identity and mental health should be considered in exploring the present model. Factor analyses indicated that identity and mental health variables loaded onto the same construct, while

both questionnaire and interviews pointed to the links between identity and mental health. Mental health may be not only predicted by identity formation, but also then influence future identity work to be done by the emerging adult (i.e., an individual depressed about their identity status may not possess the motivation to then explore alternative roles and beliefs). Thus, further evaluation of the present model, as well as other models which would incorporate other variables such as other attachments, self-efficacy, other mental health variables, along with examining the process prospectively, would be warranted.

8.3   A Potential Application for Supporting the Transition into Adulthood

The present research contributes to applied and clinical work with the emerging adulthood population, by providing potential directions for educating emerging adults, their families, and those who may counsel them in school and/or work environments. One use of the present findings could be to shape what about the emerging adulthood process is communicated to these groups. Specifically, communicating that the transition into adulthood is unique to each individual, is structured by different demographic experiences and relationships, and that overall takes more time than with previous generations, would be an important message for promoting positive mental health. Identity formation was influential in these emerging adults' mental health, and interview participants indicated that observing and comparing themselves with peers' pathways to adulthood. If an emerging adult were to look to their peers as a "norm" for identity formation and adulthood achievements, and then compared themselves poorly to this standard, their mental health could be negatively affected. However, if the emerging adult focused more on their individual progress towards goals and desired adult roles, he or she may feel better about themselves, and have improved mental health, as a result.

Promoting accurate information about emerging adulthood could take on several modes. Such a message could be communicated in high school (when the uncertainties about transitioning into adulthood begin to take hold), either by school or peer counselors, or by emerging adults' parents. Later on, counselors in post-secondary settings or places of employment may find that improved knowledge about the transition to adulthood assists them in counseling young students or employees, whose unhappiness or stress may be partially attributed to the uncertainties of their search for an established identity. And, although parents did not appear to have a prominent role in influencing their emerging adults' mental health, they were still discussed as having an important emotionally, instrumentally and financially supportive role. Parents may readily provide the support needed to their emerging adult children when they learn that the latter may require support in different ways, and that they may not conform to some prototype of transitioning into adulthood.

8.4   Conclusion

The present research revealed that greater maternal attachment security predicted higher identity foreclosure, but it was higher identity achievement and lower diffusion and moratorium that predicted emerging adults' better mental health. Although it was still viewed as a valued element in the successful navigation to adulthood, parental attachment may play an indirect role in emerging adults' identity formation and mental health.

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APPENDIX A

Demographic Information

DEMOGRAPHIC INFORMATION

Instructions: *Please fill in, check or circle the appropriate answer*

Part I: General Information

1. What is your date of birth? _____ (month / day / year)
    (*Example: January 1ˢᵗ, 2007*)

2. What is your gender?   ☐ Female   ☐ Male

3. How long have you lived in ...

    a. ... Saint John? _____ (month / year)
    (*Example: January 2007*)

    b. ... Canada? _____ (month / year)

    c. If you are not originally from Canada, please indicate your country of origin:

    _____

Part II: Education & Occupation

4. How many years of education have you completed? _____ years

5. Are you *currently* enrolled as a student in a university, college, trade school or other form of post-secondary education?

    ☐   YES: Enrolled in a full-time program (4 or more courses/semester)
    ☐   YES: Enrolled in a part-time program (3 or less courses/semester)
    ☐   NO: I am not enrolled in post-secondary education.

6. Are you *currently* employed?

    ☐   YES: I have a full-time job.
    ☐   YES: I have a part-time job.
    ☐   YES: I have casual employment.
    ☐   NO: I do not have a job right now, but I am looking for one.
    ☐   NO: I do not have a job right now, and I am not looking for one.

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Part III: My Relationships With My Parents

7. Do you *currently* have someone in your life that you consider to be *your mother*?

    ☐YES: My biological ("birth") mother
    ☐YES: My stepmother
    ☐YES: Another relative (who? _____)
    ☐YES: Another, non-related person
           (who? _____)
    ☐NO: I do not have a "mother" in my life at this time (*go to question #8*).

7a. Which of the following best reflects your relationship with *your mother*?

Present relationship	Past relationship
☐Close	☐Close
☐ Not very close	☐Not very close
☐Distant	☐Distant
☐Not applicable	☐Not applicable

7b. How often are you in contact with *your mother*?
☐ Daily   ☐ 2-4 times/week   ☐ 2-4 times/month
☐ Less than once a month   ☐ No contact

8. Do you *currently* have someone in your life that you consider to be *your father*?

    ☐YES: My biological ("birth") father
    ☐YES: My stepfather
    ☐YES: Another relative (who? _____)
    ☐YES: Another, non-related person (who? _____)
    ☐NO: I do not have a "father" in my life at this time (*go to question #9*).

8a. Which of the following best reflects your relationship with *your father*?

Present relationship	Past relationship
☐Close	☐Close
☐Not very close	☐Not very close
☐Distant	☐Distant
☐Not applicable	☐Not applicable

8b. How often are you in contact with *your father*?
☐ Daily   ☐ 2-4 times/week   ☐ 2-4 times/month
☐ Less than once a month   ☐ No contact

9. What is your current living arrangement?

☐ Living with both my mother and my father
☐ Living with only one of your parents? (*Circle*: mother / father)
☐ Living in residence
☐ Living alone
☐ Living with friends/roommates
☐ Living with spouse/partner
☐ Other (please indicate:_____)

9a. If you no longer with your parents (either both or only one), how long have you lived away from them?

_____ (month / year)
(*Example: January 2007*)

10. Do you receive any financial support from your mother and/or your father?
   ☐ YES   ☐ NO

10a. If YES, what is the *average* amount of financial support (in dollars) that you receive from your mother and/or your father *per month*?

_____

APPENDIX B

English Reading Comprehension Test - Revised

ERCT-R

Please read the following paragraph carefully and indicate if the ten statements listed below are True or False.

It feels great to ride a bicycle on a sunny Saturday morning. Dressed in a light track suit with his backpack on, John gets on his bicycle. Destination: the Rideau canal. He can already feel that this ride will help him to relax, and to admire the beautiful scenery. But the city is not the same as the countryside; the intolerable noise of motorcycles, the piercing sound of sirens, noisy pedestrians, dogs running and barking, taxis honking their horns, carbon monoxide escaping from passing automobiles. Alas! The canal! The lush green, elderly people chatting in the shade of a maple tree, a young couple embracing and lying on the grass, a boat filled with tourists passing by. How enchanting! No, garbage and dead fish float on the surface of the water. It's polluted.

Water pollution, air pollution, noise pollution.

TRUE (T) OR FALSE (F)

_____1. John rides his bicycle every day.

_____2. The city is the perfect place for a bike ride.

_____3. Dogs rarely bark.

_____4. John prefers the Rideau canal.

_____5. Chatting means: talking without saying anything of importance.

_____6. Pollution has ruined this once enchanting place.

_____7. Nowadays, motorcycles make very little noise.

_____8. A pedestrian is someone who is walking.

_____9. Pollution affects the canal.

_____10. The green refers to the grass.

APPENDIX C

Parental Attachment Questionnaire – Mother

PAQ-M

The following pages contain statements that describe family relationships and the kinds of feelings and experiences frequently reported by young adults. Please respond to each item by filling in the number on a scale of 1 to 5 that best describes your mother, your relationship with your mother, and your experiences and feelings. Please provide a single rating to describe your mother and your relationship with her.

Please respond to the following questions with regards to *your mother* (the person that you named as your mother on the demographics sheet): _____

1	2	3	4	5
Not at all	Somewhat	A Moderate Amount	Quite a Bit	Very Much

In general, my mother...

___1. is someone I can count on to provide emotional support when I feel troubled.
___2. supports my goals and interests.
___3. lives in a different world.
___4. understands my problems and concerns.
___5. respects my privacy.
___6. restricts my freedom or independence.
___7 is available to give me advice or guidance when I want it.
___8. takes my opinions seriously.
___9. encourages me to make my own decisions.
___10. is critical of what I can do.
___11. imposes her ideas and values on me.
___12. has given me as much attention as I have wanted.
___13. is someone to whom I can express differences of opinion on important matters.
___14. has no idea what I am feeling or thinking.
___15. has provided me with the freedom to experiment and learn things on my own.
___16. is too busy or otherwise involved to help me.
___17 has trust and confidence in me.
___18. tries to control my life.
___19. protects me from danger and difficulty
___20. ignores what I have to say.
___21. is sensitive to my feelings and needs
___22. is disappointed in me.
___23. gives me advice whether or not I want it.
___24 respects my judgment and decisions, even if different from what they would want.
___25. does things for me, which I could do for myself.
___26. is someone whose expectations I feel obligated to meet.
___27. treats me like a younger child.

1	2	3	4	5
Not at all	Somewhat	A Moderate Amount	Quite a Bit	Very Much

During recent visits or time spent together, my mother was someone...

___28. I looked forward to seeing.
___29. with whom I argued.
___30. with whom I felt relaxed and comfortable.
___31. who made me angry.
___32. I wanted to be with all the time.
___33. towards whom I felt cool and distant.
___34 who got on my nerves.
___35. who aroused feelings of guilt and anxiety.
___36. to whom I enjoyed telling about the things I have done and learned.
___37. for whom I felt a feeling of love.
___38. I tried to ignore.
___39. to whom I confided my most personal thoughts and feelings.
___40. whose company I enjoyed.
___41. I avoided telling about my experiences.

Following time spent together, I leave my mother. . .

___42. with warm and positive feelings.
___43. feeling let down and disappointed by my mother.

When I have a serious problem or an important decision to make. . .

___44. I look to my mother for support, encouragement, and/or guidance.
___45. I seek help from a professional, such as a therapist, college counselor, or clergy.
___46. I think about how my mother might respond and what they might say.
___47. I work it out on my own, without help or discussion with others.
___48 I discuss the matter with a friend.
___49. I know that my mother will know what to do.
___50. I contact my mother if I am not able to resolve the situation after talking it over with my friends.

When I go to my mother for help. . .

___51. I feel more confident in my ability to handle the problems on my own.
___52. I continue to feel unsure of myself.
___53. I feel that I would have obtained more understanding and comfort from a friend.
___54. I feel confident that things will work out as long as I follow my mother's advice.
___55. I am disappointed with their response.

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APPENDIX D

Parental Attachment Questionnaire – Father

PAQ-F

The following pages contain statements that describe family relationships and the kinds of feelings and experiences frequently reported by young adults. Please respond to each item by filling in the number on a scale of 1 to 5 that best describes your father, your relationship with your father, and your experiences and feelings. Please provide a single rating to describe your father and your relationship with him.

Please respond to the following questions with regards to *your father* (the person that you named as your father on the demographics sheet): _____

1	2	3	4	5
Not at all	Somewhat	A Moderate Amount	Quite a Bit	Very Much

In general, my father...

___1. is someone I can count on to provide emotional support when I feel troubled.
___2. supports my goals and interests.
___3. lives in a different world.
___4. understands my problems and concerns.
___5. respects my privacy.
___6. restricts my freedom or independence.
___7 is available to give me advice or guidance when I want it.
___8. takes my opinions seriously.
___9. encourages me to make my own decisions.
___10. is critical of what I can do.
___11. imposes his ideas and values on me.
___12. has given me as much attention as I have wanted.
___13. is someone to whom I can express differences of opinion on important matters.
___14. has no idea what I am feeling or thinking.
___15. has provided me with the freedom to experiment and learn things on my own.
___16. is too busy or otherwise involved to help me.
___17 has trust and confidence in me.
___18. tries to control my life.
___19. protects me from danger and difficulty
___20. ignores what I have to say.
___21. is sensitive to my feelings and needs
___22. is disappointed in me.
___23. gives me advice whether or not I want it.
___24 respects my judgment and decisions, even if different from what they would want.
___25. does things for me, which I could do for myself.
___26. is someone whose expectations I feel obligated to meet.
___27. treats me like a younger child.

1	2	3	4	5
Not at all	Somewhat	A Moderate Amount	Quite a Bit	Very Much

During recent visits or time spent together, my father was someone...

___28. I looked forward to seeing.
___29. with whom I argued.
___30. with whom I felt relaxed and comfortable.
___31. who made me angry.
___32. I wanted to be with all the time.
___33. towards whom I felt cool and distant.
___34 who got on my nerves.
___35. who aroused feelings of guilt and anxiety.
___36. to whom I enjoyed telling about the things I have done and learned.
___37. for whom I felt a feeling of love.
___38. I tried to ignore.
___39. to whom I confided my most personal thoughts and feelings.
___40. whose company I enjoyed.
___41. I avoided telling about my experiences.

Following time spent together, I leave my father...

___42. with warm and positive feelings.
___43. feeling let down and disappointed by my father.

When I have a serious problem or an important decision to make...

___44. I look to my father for support, encouragement, and/or guidance.
___45. I seek help from a professional, such as a therapist, college counselor, or clergy.
___46. I think about how my father might respond and what they might say.
___47. I work it out on my own, without help or discussion with others.
___48 I discuss the matter with a friend.
___49. I know that my father will know what to do.
___50. I contact my father if I am not able to resolve the situation after talking it over with my friends.

When I go to my father for help...

___51. I feel more confident in my ability to handle the problems on my own.
___52. I continue to feel unsure of myself.
___53. I feel that I would have obtained more understanding and comfort from a friend.
___54. I feel confident that things will work out as long as I follow my father's advice.
___55. I am disappointed with their response.

APPENDIX E

Father Involvement Scale

FIS

To answer the following questions, please refer to your current life situation.

Please respond to the following questions with regards to *your father* (the person that you named as your father on the demographics sheet): _____

How *involved* is your father in the following aspects of your life and development? Please place the appropriate number on the line *before* each of the following items.

    5 = Always involved
    4 = Often involved
    3 = Sometimes involved
    2 = Rarely involved
    1 = Never involved

_____Intellectual development   _____Leisure, fun, play
_____Emotional development   _____Providing income
_____Social development   _____Sharing activities/interests
_____Ethical/moral development   _____Mentoring/teaching
_____Spiritual development   _____Caregiving
_____Physical development   _____Being protective
_____Career development   _____Advising
_____Developing responsibility   _____Discipline
_____Developing independence   _____School/homework
_____Developing competence   _____Companionship

APPENDIX F

Mother Involvement Scale

MIS

To answer the following questions, please refer to your current life situation.

Please respond to the following questions with regards to *your mother* (the person that you named as your mother on the demographics sheet): _____

How *involved* is your mother in the following aspects of your life and development? Please place the appropriate number on the line *before* each of the following items.

$$5 = \text{Always involved}$$
$$4 = \text{Often involved}$$
$$3 = \text{Sometimes involved}$$
$$2 = \text{Rarely involved}$$
$$1 = \text{Never involved}$$

_____Intellectual development	_____Leisure, fun, play
_____Emotional development	_____Providing income
_____Social development	_____Sharing activities/interests
_____Ethical/moral development	_____Mentoring/teaching
_____Spiritual development	_____Caregiving
_____Physical development	_____Being protective
_____Career development	_____Advising
_____Developing responsibility	_____Discipline
_____Developing independence	_____School/homework
_____Developing competence	_____Companionship

APPENDIX G

Extended Objective Measures of Ego-Identity Status – II

EOMEIS-2

Read each item carefully. Be sure to respond to the total item and not just a certain part of it. Using the response key below, indicate to what degree it fits your own impressions about yourself. You may begin by thinking about whether you agree or disagree. Then you can decide how strongly you feel about it. Remember, we are interested in how these items either reflect or don't reflect how you perceive your own situations.

1 = strongly agree   4 = disagree
2 = moderately agree 5 = moderately disagree
3 = agree   6 = strongly disagree

	Strongly agree					Strongly disagree
1. I haven't chosen the occupation I really want to get into, and I'm just working at what is available until something better comes along.	1	2	3	4	5	6
2. When it comes to religion I just haven't found anything that appeals and I don't really feel the need to look.	1	2	3	4	5	6
3. My ideas about men's and women's roles are identical to my parents'. What has worked for them will obviously work for me.	1	2	3	4	5	6
4. There's no single "life style" which appeals to me more than another.	1	2	3	4	5	6
5. There are a lot of different kinds of people. I'm still exploring the many possibilities to find the right kind of friends for me.	1	2	3	4	5	6
6. I sometimes join in recreational activities when asked, but I rarely try anything on my own.	1	2	3	4	5	6
7. I haven't really thought about a "dating style." I'm not too concerned whether I date or not.	1	2	3	4	5	6
8. Politics is something that I can never be too sure about because things change so fast. But I do think it's important to know what I can politically stand for and believe in.	1	2	3	4	5	6
9. I'm still trying to decide how capable I am as a person and what work will be right for me.	1	2	3	4	5	6
10. I don't give religion much thought and it doesn't bother me one way or the other.	1	2	3	4	5	6
11. There's so many ways to divide responsibilities in marriage, I'm trying to decide what will work for me.	1	2	3	4	5	6

	Strongly agree					Strongly disagree
12. I'm looking for an acceptable perspective for my own "life style", but haven't really found it yet.	1	2	3	4	5	6
13. There are many reasons for friendship, but I choose my close friends on the basis of certain values and similarities that I've personally decided on.	1	2	3	4	5	6
14. While I don't have one recreational activity I'm really committed to, I'm experiencing numerous leisure outlets to identify one I can truly enjoy.	1	2	3	4	5	6
15. Based on past experiences, I've chosen the type of dating relationship I want now.	1	2	3	4	5	6
16. I haven't really considered politics. It just doesn't excite me much.	1	2	3	4	5	6
17. I might have thought about a lot of different jobs, but there's never really been any question since my parents said what they wanted.	1	2	3	4	5	6
18. A person's faith is unique to each individual. I've considered and reconsidered it myself and know what I can believe.	1	2	3	4	5	6
19. I've never really seriously considered men's and women's roles in marriage. It just doesn't seem to concern me.	1	2	3	4	5	6
20. After considerable thought I've developed my own individual viewpoint of what is for me an ideal "life style" and don't believe anyone will be likely to change my perspective.	1	2	3	4	5	6
21. My parents know what's best for me in terms of how to choose my friends.	1	2	3	4	5	6
22. I've chosen one or more recreational activities to engage in regularly from lots of things and I'm satisfied with those choices.	1	2	3	4	5	6
23. I don't think about dating much. I just kind of take it as it comes.	1	2	3	4	5	6
24. I guess I'm pretty much like my folks when it comes to politics. I follow what they do in terms of voting and such.	1	2	3	4	5	6
25. I'm not really interested in finding the right job, any job will do. I just seem to flow with what is available.	1	2	3	4	5	6
26. I'm not sure what religion means to me. I'd like to make up my mind but I'm not done looking yet.	1	2	3	4	5	6

	Strongly agree					Strongly disagree
27. My ideas about men's and women's roles have come right for my parents and family. I haven't seen any need to look further.	1	2	3	4	5	6
28. My own views on a desirable life style were taught to me by my parents and I don't see any need to question what they taught me.	1	2	3	4	5	6
29. I don't have any real close friends, and I don't think I'm looking for one right now.	1	2	3	4	5	6
30. Sometimes I join in leisure activities, but I really don't see a need to look for a particular activity to do regularly.	1	2	3	4	5	6
31. I'm trying out different types of dating relationships. I just haven't decided what is best for me.	1	2	3	4	5	6
32. There are so many different political parties and ideals. I can't decide which to follow until I figure it all out.	1	2	3	4	5	6
33. It took me a while to figure it out, but now I really know what I want for a career.	1	2	3	4	5	6
34. Religion is confusing to me right now. I keep changing my views on what is right and wrong for me.	1	2	3	4	5	6
35. I've spent some time thinking about men's and women's roles in marriage and I've decided what will work best for me.	1	2	3	4	5	6
36. In finding an acceptable viewpoint to life itself, I find myself engaging in a lot of discussions with others and some self exploration.	1	2	3	4	5	6
37. I only pick friends my parent would approve of.	1	2	3	4	5	6
38. I've always liked doing the same recreational activities my parents do and haven't ever seriously considered anything else.	1	2	3	4	5	6
39. I only go out with the type of people my parents expect me to date.	1	2	3	4	5	6
40. I've thought my political beliefs through and realize I can agree with some and not other aspects of what my parents believe.	1	2	3	4	5	6
41. My parents decided a long time ago what I should go into for employment and I'm following through their plans.	1	2	3	4	5	6

	Strongly agree					Strongly disagree
42. I've gone through a period of serious questions about faith and can now say I understand what I believe in as an individual.	1	2	3	4	5	6
43. I've been thinking about the roles that husbands and wives play a lot these days, and I'm trying to make a final decision.	1	2	3	4	5	6
44. My parents' views on life are good enough for me, I don't need anything else.	1	2	3	4	5	6
45. I've had many different friendships and now I have a clear idea of what I look for in a friend.	1	2	3	4	5	6
46. After trying a lot of different recreational activities I've found one or more I really enjoy doing by myself or with friends.	1	2	3	4	5	6
47. My preferences about dating are still in the process of developing. I haven't fully decided yet.	1	2	3	4	5	6
48. I'm not sure about my political beliefs, but I'm trying to figure out what I can truly believe in.	1	2	3	4	5	6
49. It took me a long time to decide but now I know for sure what direction to move in for a career.	1	2	3	4	5	6
50. I attend the same church as my family has always attended. I've never really questioned why.	1	2	3	4	5	6
51. There are many ways that married couples can divide up family responsibilities. I've thought about lots of ways, and now I know exactly how I want it to happen for me.	1	2	3	4	5	6
52. I guess I just kind of enjoy life in general, and I don't see myself living by any particular viewpoint to life.	1	2	3	4	5	6
53. I don't have any close friends. I just like to hang around with the crowd.	1	2	3	4	5	6
54. I've been experiencing a variety of recreational activities in hope of finding one or more I can really enjoy for some time to come.	1	2	3	4	5	6
55. I've dated different types of people and know exactly what my own "unwritten rules" for dating are and who I will date.	1	2	3	4	5	6
56. I really have never been involved in politics enough to have made a firm stand one way or the other.	1	2	3	4	5	6

	Strongly agree				Strongly disagree
57. I just can't decide what to do for an occupation. There are so many possibilities.	1	2	3	4	5	6
58. I've never really questioned my religion. If it's right for my parents it must be right for me.	1	2	3	4	5	6
59. Opinions on men's and women's roles seem so varied that I don't think much about it.	1	2	3	4	5	6
60. After a lot of self-examination I have established a very definite view on what my own life style will be.	1	2	3	4	5	6
61. I really don't know what kind of friend is best for me. I'm trying to figure out exactly what friendship means to me.	1	2	3	4	5	6
62. All of my recreational preferences I got from my parents and I haven't really tried anything else.	1	2	3	4	5	6
63. I date only people my parents would approve of.	1	2	3	4	5	6
64. My folks have always had their own political and moral beliefs about issues like abortion and mercy killing and I've always gone along accepting what they have.	1	2	3	4	5	6

APPENDIX H

Scales of Psychological Well-Being – Self-Acceptance Scale

SPWB – SA

Please read each of the following questions carefully. There is no right or wrong answer – we are only interested in your honest opinion. For each question, circle the number that best represents your opinion, using the following scoring guide:

Strongly disagree = 1   Moderately disagree = 2   Slightly disagree = 3
Slightly agree = 4   Moderately agree = 5   Strongly agree = 6

		Strongly disagree					Strongly agree
1	When I look at the story of my life, I am pleased with how things have turned out.	1	2	3	4	5	6
2	In general, I feel confident and positive about myself.	1	2	3	4	5	6
3	I feel like many of the people I know have gotten more out of life than I have.	1	2	3	4	5	6
4	I like most aspects of my personality.	1	2	3	4	5	6
5	I made some mistakes in the past, but I feel that all in all everything has worked out for the best.	1	2	3	4	5	6
6	In many ways, I feel disappointed about my achievements in life.	1	2	3	4	5	6
7	My attitude about myself is probably not as positive as most people feel about themselves.	1	2	3	4	5	6
8	The past had its ups and downs, but in general, I wouldn't want to change it.	1	2	3	4	5	6
9	When I compare myself to friends and acquaintances, it makes me feel good about who I am.	1	2	3	4	5	6

APPENDIX I

Subjective Happiness Scale

SHS

For each of the following statements and/or questions, please circle the point on the scale that you feel is most appropriate in describing you.

1. In general, I consider myself:

1	2	3	4	5	6	7
Not a very happy person						A very happy person

2. Compared to most of my peers, I consider myself:

1	2	3	4	5	6	7
Less happy						More happy

3. Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you?

1	2	3	4	5	6	7
Not at all						A great deal

4. Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you?

1	2	3	4	5	6	7
Not at all						A great deal

APPENDIX J

Personality Assessment Screener

PAS

Read each statement and decide whether it is an accurate statement about you. Give your own opinions of yourself. Be sure to answer every statement.

If the statement is **false, not at all true**, circle **F**
If the statement is **slightly true**, circle **ST**
If the statement is **mainly true**, circle **MT**
If the statement is **very true**, circle **VT**

1	My friends are available if I need them.	F	ST	MT	VT
2	I'm a very sociable person.	F	ST	MT	VT
3	I'm a "take charge" type of person.	F	ST	MT	VT
4	Sometimes I let little things bother me too much.	F	ST	MT	VT
5	I've thought about ways to kill myself.	F	ST	MT	VT
6	It's often hard for me to enjoy myself because I am worrying about things.	F	ST	MT	VT
7	Some people do things to make me look bad.	F	ST	MT	VT
8	I've done some things that weren't exactly legal.	F	ST	MT	VT
9	It's a struggle for me to get things done with the medical problems I have.	F	ST	MT	VT
10	People around me are faithful to me.	F	ST	MT	VT
11	I am in good health.	F	ST	MT	VT
12	My drinking seems to cause problems in my relationships with others.	F	ST	MT	VT
13	I never use illegal drugs.	F	ST	MT	VT
14	Some people try to keep me from getting ahead.	F	ST	MT	VT

If the statement is **false, not at all true**, circle **F**
If the statement is **slightly true**, circle **ST**
If the statement is **mainly true**, circle **MT**
If the statement is **very true**, circle **VT**

15	I have thought about suicide for a long time.	F	ST	MT	VT
16	I have a bad temper.	F	ST	MT	VT
17	It takes a lot to make me angry.	F	ST	MT	VT
18	I spend money too easily.	F	ST	MT	VT
19	I make friends easily.	F	ST	MT	VT
20	I'm almost always a happy and positive person.	F	ST	MT	VT
21	I never drive when I've been drinking.	F	ST	MT	VT
22	People think I'm aggressive.	F	ST	MT	VT

APPENDIX K

Relationship Questionnaire

RQ

For the next set of questions we would like you to think about how you typically view yourself and other people with regards to getting to know, trusting and depending on them. Please indicate how well each of the four descriptions describe you with respect to close relationships. Use the seven point rating scale below each paragraph to indicate if a description is **NOT ALL LIKE ME (1), VERY MUCH LIKE ME (7)** or somewhere **IN BETWEEN (2, 3, 4, 5, 6).**

1. It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me.

1	2	3	4	5	6	7
Not at all like me						Very much like me

2. I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.

1	2	3	4	5	6	7
Not at all like me						Very much like me

3. I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.

1	2	3	4	5	6	7
Not at all like me						Very much like me

4. I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

1	2	3	4	5	6	7
Not at all like me						Very much like me

5. Which of the 4 descriptions _above_ best describes how you feel in close relationships or is nearest to the way you feel (Please choose ONE only). Place the number of your selection here_____.

APPENDIX L

Informed Consent - University Participants

CONSENT TO PARTICIPATE IN RESEARCH

We invite you to participate in a study on relationships. Before agreeing to participate, it is important that you read the following explanation of this study.

Explanation of Procedure: Your participation will require **approximately 40 minutes** of your time. You will be asked to complete a series of questionnaires: the first contains general questions (such as age and gender), and the remaining questionnaires concern your relationships with others.

Risks and Discomforts: You will not be at physical or psychological risk, and should experience no discomfort as a result of answering the questionnaires.

Benefits: Although you will not directly benefit from participation, you will provide useful knowledge about relationships that can be used to enhance counseling programs.

Confidentiality: The **confidentiality** of all results is preserved during and after this study. All results will be kept in a locked drawer for five years after the termination of the study and destroyed thereafter. **Anonymity** is ensured in any subsequent research reports, publications or presentations. Please **do not** put your name or any other identifying information on the questionnaires.

Withdrawal from Study: Participation is strictly **voluntary**. You may withdraw at any time (even after testing has begun) without penalty. You may also decline to answer questions that make you uncomfortable.

Incentive to Participate: You will earn one bonus point towards your final grade in an applicable psychology course. Your name will also be entered into a random draw for one of three Tim Horton's gift certificates (valued at $50, $20, and $10).

Questions: If you have any questions/concerns about the study, please contact:
Bryn Robinson, PhD student (bryn.robinson@unb.ca; 506-644-8613)
Dr. Enrico DiTommaso, Faculty Advisor (rico@unbsj.ca; 506-648-5636)

For additional information about this project from someone other than ourselves, contact: Dr. David Flagel, Chair, UNBSJ Research Ethics Board (506-648-5610)

I have read the above description of the project and the researchers have answered my questions to my satisfaction. I have received a copy of this informed consent.

I, _____ , agree to participate in this study.
    (PRINT NAME - Participant)

Signature: _____ and Date: ___/___/___

Student number: _____ Email: _____

APPENDIX M

Informed Consent for Future Participation – University Participants

CONSENT TO BE CONTACTED FOR FUTURE PARTICIPATION

This research project is part of a study being conducted over the next few months. In an effort to better understand more specific areas of interpersonal functioning, we are planning to follow up this project with a related one.

We would like to contact you in approximately 4 - 5 months time, and invite to participate by taking part in an interview.

It is not necessary that you agree to be contacted for future participation, in order to take part in the current study. This form gives us permission to contact you in 4 - 5 months time for the next phase of the project.

Please rest assured that you are free to withdraw from the project **at any time**, and that providing us with permission to contact you to take part in a follow-up study in no way obligates you to further participation.

Questions: If you have any questions/concerns about this part of the study, please contact:
Bryn Robinson, PhD student (bryn.robinson@unb.ca; 506-644-8613)
Dr. Enrico DiTommaso, Faculty Advisor (rico@unbsj.ca; 506-648-5636)

For additional information about this project from someone other than ourselves, contact: Dr. David Flagel, Chair, UNBSJ Research Ethics Board (506-648-5610)

If you think that you may want to participate in future studies, please read over and fill out the following consent form:

I understand that over the next year, I may be asked to complete the follow-up study with an interview. Although I am under no obligation to take part in any future studies, I am providing my contact information so that I may be contacted in the future. The researchers have answered my questions to my satisfaction, and I have received a copy of this informed consent.

I, _____, agree to participate in this study.
    (PRINT NAME - Participant)

Signature: _____ and Date: ___/___/___

Student number: _____ Email: _____

APPENDIX N

Debriefing Form – University Participants

Department of Psychology
University of New Brunswick, Saint John
100 Tucker Park Road, PO Box 5050
Saint John, New Brunswick
E2L 4L5

Dear Participant,

I would like to thank you for your participation today in this research study, entitled *Identity Formation and Parental Attachment: Implications for Emerging Adults' Mental Health*. *Emerging adulthood* is a new area of developmental research, with its' focus on individuals' transition from adolescence to young adulthood. This study examines how our relationships with our parents and our process of forming an identity affect our mental health during this transition phase. It is hoped that with your contribution today, we will be able to gain a deeper understanding of how to predict mental health in this age group. Potentially, these results can help us modify existing mental health treatment in order to better suit the needs of emerging adults. The following reference can provide you with more information:

Arnett, J.J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55,* 469-480.

If you are interested in learning more about this study, or would like to have a copy of the summarized results, please contact one of the following researchers. We would be happy to provide you with our findings.

Bryn Robinson, PhD student
bryn.robinson@unb.ca
506 – 644 – 8613

Dr. Enrico DiTommaso, Supervisor
rico@unbsj.ca
506 – 648 – 5636

If, for any reason, you do not feel comfortable as a result of your participation, please advise the above researchers before leaving the research session, and/or contact one of the following support services:

Student Health Centre
Lana Davis, university counselor
davisl@unbsj.ca
506 – 648 – 5557

Community Mental Health Centre
55 Union Street, Saint John, NB
506 – 658 – 3737

Again, I would like to thank you for your participation!

Sincerely,

Bryn Robinson
PhD student, UNB Saint John

APPENDIX O

Informed Consent - Community Participants

CONSENT TO PARTICIPATE IN RESEARCH

We invite you to participate in a study on relationships. Before agreeing to participate, it is important that you read the following explanation of this study.

Explanation of Procedure: Your participation will require **approximately 40 minutes** of your time. You will be asked to complete a series of questionnaires: the first contains general questions (such as age and gender), and the remaining questionnaires concern your relationships with others.

Risks and Discomforts: You will not be at physical or psychological risk, and should experience no discomfort as a result of answering the questionnaires.

Benefits: Although you will not directly benefit from participation, you will provide useful knowledge about relationships that can be used to enhance counseling programs.

Confidentiality: The **confidentiality** of all results is preserved during and after this study. All results will be kept in a locked drawer for five years after the termination of the study and destroyed thereafter. **Anonymity** is ensured in any subsequent research reports, publications or presentations. Please **do not** put your name or any other identifying information on the questionnaires.

Withdrawal from Study: Participation is strictly **voluntary**. You may withdraw at any time (even after testing has begun) without penalty. You may also decline to answer questions that make you uncomfortable.

Incentive to Participate: Your name will also be entered into a random draw for one of three Tim Horton's gift certificates (valued at $50, $20, and $10).

Questions: If you have any questions/concerns about the study, please contact:
Bryn Robinson, PhD student (bryn.robinson@unb.ca; 506-644-8613)
Dr. Enrico DiTommaso, Faculty Advisor (rico@unbsj.ca; 506-648-5636)

For additional information about this project from someone other than ourselves, contact: Dr. David Flagel, Chair, UNBSJ Research Ethics Board (506-648-5610)

I have read the above description of the project and the researchers have answered my questions to my satisfaction. I have received a copy of this informed consent.

I, _____, agree to participate in this study.
       (PRINT NAME - Participant)

Signature: _____ and Date: ___/___/___

Email: _____

APPENDIX P

Informed Consent for Future Participation – Community Participants

CONSENT TO BE CONTACTED FOR FUTURE PARTICIPATION

This research project is part of a study being conducted over the next few months. In an effort to better understand more specific areas of interpersonal functioning, we are planning to follow up this project with a related one.

We would like to contact you in approximately 4 - 5 months time, and invite to participate by taking part in an interview.

It is not necessary that you agree to be contacted for future participation, in order to take part in the current study. This form gives us permission to contact you in 4 - 5 months time for the next phase of the project.

Please rest assured that you are free to withdraw from the project **at any time**, and that providing us with permission to contact you to take part in a follow-up study in no way obligates you to further participation.

Questions: If you have any questions/concerns about this part of the study, please contact:
Bryn Robinson, PhD student (bryn.robinson@unb.ca; 506-644-8613)
Dr. Enrico DiTommaso, Faculty Advisor (rico@unbsj.ca; 506-648-5636)

For additional information about this project from someone other than ourselves, contact: Dr. David Flagel, Chair, UNBSJ Research Ethics Board (506-648-5610)

If you think that you may want to participate in future studies, please read over and fill out the following consent form:

I understand that over the next year, I may be asked to complete the follow-up study with an interview. Although I am under no obligation to take part in any future studies, I am providing my contact information so that I may be contacted in the future. The researchers have answered my questions to my satisfaction, and I have received a copy of this informed consent.

I, _____, agree to participate in this study.
    (PRINT NAME - Participant)

Signature: _____ and Date: ___/___/___

Phone number: _____ Email: _____

APPENDIX Q

Debriefing Form – Community Participants

Department of Psychology
University of New Brunswick, Saint John
100 Tucker Park Road, PO Box 5050
Saint John, New Brunswick
E2L 4L5

Dear Participant,

I would like to thank you for your participation today in this research study, entitled *Identity Formation and Parental Attachment: Implications for Emerging Adults' Mental Health*. *Emerging adulthood* is a new area of developmental research, with its' focus on individuals' transition from adolescence to young adulthood. This study examines how our relationships with our parents and our process of forming an identity affect our mental health during this transition phase. It is hoped that with your contribution today, we will be able to gain a deeper understanding of how to predict mental health in this age group. Potentially, these results can help us modify existing mental health treatment in order to better suit the needs of emerging adults. The following reference can provide you with more information:

Arnett, J.J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55,* 469-480.

If you are interested in learning more about this study, or would like to have a copy of the summarized results, please contact one of the following researchers. We would be happy to provide you with our findings.

Bryn Robinson, PhD student
bryn.robinson@unb.ca
506 – 644 – 8613

Dr. Enrico DiTommaso, Supervisor
rico@unbsj.ca
506 – 648 – 5636

If, for any reason, you do not feel comfortable as a result of your participation, please advise the above researchers before leaving the research session, and/or contact one of the following support services:

[Employee Assistance Program]
[Inserted here if recruited from
customer contact centre]

Community Mental Health Centre
55 Union Street, Saint John, NB
506 – 658 – 3737

Again, I would like to thank you for your participation!

Sincerely,

Bryn Robinson
PhD student, UNB Saint John

APPENDIX R

Interview Schedule for Qualitative Study

Dissertation • Study #2
Interview Schedule

Instructions for participants:

- Please answer the following questions to the best of your ability.
- If you do not wish to answer a particular question (i.e., you are uncomfortable in answering the question), please feel free to skip to the next question.
- Keep in mind that there are no right or wrong answers; I am interested in only your opinions and your experiences.
- If you need to write anything down before responding, I have provided a notepad and pencil to help you clarify your thoughts.

PART I • Emerging Adulthood

- At this time, do you believe that you are an adult?

  If YES:
  - o What makes you an adult? (i.e., what has been involved in the transition?)
  - o Since when have you considered yourself to be an adult?

  If NO:
  - o When does adulthood begin? (i.e., what does the term adult mean to you?)
  - o How will you know when you are an adult?

- Have you ever heard of the term "emerging adulthood"?

PART II • Identity

- Do you know who you are as a person? Why? Why not?

- What is involved in trying to figure yourself out? (i.e., what kinds of experiences or activities have been necessary in order to better understand yourself or learn more about your identity as a person?)

- At this time, are you the person that you want to be? Why? Why not?

PART III • Mental Health

- Currently, what factors influence your mental health in a positive manner? (i.e., make you happy, make life worth living). Negative manner? (i.e., create stress, anxiety...)

- At this time, are you happy with life?

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PART IV • Relationships with Parents

- Do you still need your parents?
    - o What kinds of support do you currently receive from them? (i.e., financial, time, resources, instrumental, emotional...)

- Do you currently live with one or both of your parents?

If YES:

    - o How do you feel about this arrangement?

If NO:

    - o How was the transition from the parental home to being out on your own?
    - o What made this transition easy? Difficult?

- How would you describe the relationship with your mother figure?
- What things do you like about your mother? Dislike?
- How is your mother involved in your life at this time?
- How has your mother helped you in becoming an adult, if at all?
- How has she contributed to you finding yourself, if at all?

- How would you describe the relationship with your father figure?
- What things do you like about your father? Dislike?
- How is your father involved in your life at this time?
- How has your father helped you in becoming an adult, if at all?
- How has he contributed to you finding yourself, if at all?

- Have you thought about any of these questions/answers before our interview today?

- Is there anyone else who has affected your search for an identity? Becoming an adult?

PART V • Final Questions

- How do you think a student/someone working in the community would answer these questions?

- Do you have any other thoughts about what we have discussed here today?

APPENDIX S

Informed Consent for Qualitative Study

CONSENT TO PARTICIPATE IN RESEARCH

We invite you to participate in a study on relationships. Before agreeing to participate, it is important that you read the following explanation of this study.

Explanation of Procedure: Your participation will require **approximately 30 – 50 minutes** of your time. You will be asked to participate in an interview concerning your relationships with others. You will also be asked to complete a brief sheet of general questions (such as age and gender) prior to beginning the interview.

Risks and Discomforts: You will not be at physical or psychological risk, and should experience no discomfort as a result of answering the questions posed on the sheet of demographic questions or during the interview.

Benefits: Although you will not directly benefit from participation, you will provide useful knowledge about relationships that can be used to enhance counseling programs.

Confidentiality: The **confidentiality** of all results is preserved during and after this study. All results (i.e., audio recordings, written interview transcripts, demographics sheet) will be kept in a locked drawer for five years after the termination of the study and destroyed thereafter. **Anonymity** is ensured in subsequent reports, publications or presentations. Please **do not** put your name or other identifying information on the demographics sheet.

Withdrawal from Study: Participation is strictly **voluntary**. You may withdraw at any time (even after testing has begun) without penalty. You may also decline to answer questions that make you uncomfortable.

Incentive to Participate: For your participation today, you will receive a $5 Tim Horton's gift certificate. If applicable, any parking costs during your visit at UNB Saint John will also be reimbursed.

Questions: If you have any questions/concerns about the study, please contact:
Bryn Robinson, PhD student (bryn.robinson@unb.ca; 506-644-8613)
Dr. Enrico DiTommaso, Faculty Advisor (rico@unbsj.ca; 506-648-5636)
For additional information about this project from someone other than ourselves, contact: Dr. David Flagel, Chair, UNBSJ Research Ethics Board (506-648-5610)

I have read the above description of the project and the researchers have answered my questions to my satisfaction. I have received a copy of this informed consent.

I, _____, agree to participate in this study.
(PRINT NAME - Participant)

Signature: _____ Date: ___/___/___
Email: _____

APPENDIX T

Debriefing Sheet for Qualitative Study

Department of Psychology
University of New Brunswick, Saint John
100 Tucker Park Road, PO Box 5050
Saint John, NB E2L 4L5

Dear Participant,

I would like to thank you for your participation today in this research study, entitled *Identity Formation and Parental Attachment: Implications for Emerging Adults' Mental Health. Emerging adulthood* is a new area of developmental research. It focuses on individuals' transition from adolescence to young adulthood.

In Study I, the goal was to examine how our parental relationships and process of forming an identity affects mental health during this transition phase. In today's study (Study II), your contribution helped to elaborate upon the findings from Study I, as well as provide future research directions. It is hoped that the findings from the two studies we will enable us to better predict mental health in this age group. Potentially, these results can help us modify existing mental health treatment in order to better suit the needs of emerging adults.

If you are interested in learning more about this study, or would like to have a summary of the results, please contact one of the following researchers. We would be happy to provide you with a copy of our findings.

Bryn Robinson, PhD student   Dr. Enrico DiTommaso, Supervisor
bryn.robinson@unb.ca   rico@unb.ca
506 – 644 – 8613   506 – 648 – 5636

If, for any reason, you do not feel comfortable as a result of your participation, please advise the above researchers before leaving the research session, and/or contact one of the following support services:

At UNB Saint John:
Student Health Centre, Oland Hall G11: Meredith Henry (648–5557; mhenry1@unbsj.ca)

In Saint John:
Gentle Path Counselling Services: 82 Germain St., 652–7284, path@nbnet.nb.ca
Community Mental Health: Mercantile Centre, 55 Union St., 658–3737

Again, I would like to thank you for your participation!

Bryn Robinson, PhD student
UNB Saint John

CURRICULUM VITAE

Candidate's full name: Bryn Amy Robinson

Universities attended: University of New Brunswick
Doctor of Philosophy, Experimental and Applied Psychology

University of New Brunswick, 2003
Bachelor of Arts, Psychology (Honours) and French (Major)

Publications:
DiTommaso, E., Turbide, J., Poulin, C., & Robinson, B. (2007). L'Échelle de Solitude Social et Émotionnelle (ÉSSÉ): A French-Canadian Adaptation of the Social and Emotional Loneliness Scale for Adults. *Social Behaviour and Personality, 35,* 339-350.

Hicks-Moore, S.L., & Robinson, B. (2008). Favourite music and hand massage: Two interventions to decrease agitation in residents with dementia. *Dementia, 7,* 95 – 108.

Robinson, B. (2007a). Family Matters: Stop discussing mental illness in hushed tones in dark corners. *All in Your Head*, CBC New Brunswick.

Robinson, B. (2007b). Graduate students: Sources of support now, colleagues later. *Psynopsis*, Canadian Psychological Association.

Robinson, B. (2005). The Power of Positive Psychology. *Perspectives*, University of New Brunswick.

Ridler, N., Robinson, B., Chopin, T., Robinson, S., & Page, F. (2005). Development of integrated multi-trophic aquaculture in the Bay of Fundy; a socioeconomic case study. *World Aquaculture Society, 37,* 43 - 52.

Conference Presentations:
Doucette, N., Campbell, M.A., Green, L., DiTommaso, E., & Robinson, B. (June, 2006). *Aggression: It has more to do with emotional intelligence than empathy.* Poster presented at 67th annual Canadian Psychological Association National Convention, Calgary, AB.

Perry, S.L., DiTommaso, E., Robinson, B., & Doiron, Y. (June, 2007). *Attachment and coping: Implications for problematic eating behaviours and body image disturbances.* Poster presented at 68th annual Canadian Psychological Association National Convention, Ottawa, ON.

Robinson, B., & Campbell, M.A. (June, 2007). *Walking the line: Ethical and educational concerns for therapist self-disclosure.* Paper presented at the 3rd International Conference on Clinical Ethics and Consultation, Toronto, ON.

Robinson, B., & DiTommaso, E. (June, 2007). *Influences of parental caregiving and attachment on emerging adults' well-being.* Poster presented at 68th annual Canadian Psychological Association National Convention, Ottawa, ON.

Robinson, B., & DiTommaso, E. (June, 2006). *Interpersonal influences on the expression of positive psychological characteristics.* Poster presented at 67th annual Canadian Psychological Association National Convention, Calgary, AB.

Robinson, B., DiTommaso, E., Campbell, M.A., & Green, L. (October, 2005). *Father involvement, father nurturance, and adult attachment as predictors of emotional intelligence.* Paper presented at 5th annual Emerging Issues in Psychology conference, Fredericton, NB.

Robinson, B., DiTommaso, E., Campbell, M.A., & Green, L. (July, 2005). *Father involvement, father nurturance, and adult attachment as predictors of emotional intelligence.* Paper presented at the International Association for Relationship Research mini-conference: Privacy, Confidentiality, and the Ethics of Health Relationships and Relationship Health, Indiana University- Purdue University at Indiana, Indianapolis, IN.

Robinson, B., DiTommaso, E., & Brannen, C. (June, 2005). *Thinking and doing: Cognitions & behaviours of group attachment & optimism.* Poster presented at the 66th annual Canadian Psychological Association National Convention, Montreal, QC.

Robinson, B., DiTommaso, E., & Brannen, C. (February, 2005). *Thinking and doing: Cognitions & behaviours of group attachment & optimism.* Poster presented at 13th annual Graduate Student Research Conference, University of New Brunswick, Fredericton, NB.

Robinson, B., DiTommaso, E., & Brannen, C. (October, 2004). *Thinking and doing: Cognitions & behaviours of group attachment & optimism.* Paper presented at 4th annual Emerging Issues in Psychology conference, Fredericton, NB.

Ridler, N., & Robinson, B. (November, 2003). *A project for sustainable aquaculture in the Bay of Fundy.* Paper presented at the Ocean Management Research Network National Conference, Ottawa, ON.

Trainor, W., DiTommaso, E., & Robinson, B. (June, 2006). *An examination of the relationship between religiosity, attachment to God and mental health.* Poster presented at 67th annual Canadian Psychological Association National Convention, Calgary, AB.