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Identity has been acknowledged by scholars as an important part of human development for about 50 years (Erikson, 1968), and researchers have found empirical support for the importance of identity development. Much of the identity development research is based on Erik Erikson's psychosocial development (Erikson, 1968) and James Marcia's (1966) identity statuses that expanded on the identity versus role confusion stage in Erikson's model. Specifically, the identity statuses relate to whether an individual has committed to an identity and whether the individual has explored her or his identity or had an identity crisis. Many researchers have found that committing to an identity clearly is connected with greater overall wellness (Hofer, Kartner, Chasiotis, Busch, & Keissling, 2007; Schwartz, Beyers, et al. 2011a,). Phinney (1989) and Meeus, Iedema, Helsen, and Vollebergh (1999) also have shown that not committing to an identity is linked with higher levels of psychological distress such as depression or anxiety. Researchers studying identity statuses have developed a clear understanding that committing to an identity tends to result in greater overall wellness and lower levels of psychological distress, yet it is not yet fully apparent what factors best predict Marcia's identity statuses (Kroger, Martinussen, & Marcia, 2010; Meeus et al., 1999).

Two different predictors of identity status, attachment and differentiation of self, have been proposed and empirically examined. Generally, researchers have found mild to moderate correlations between attachment style and identity status (Arseth, Kroger,

Martinussen, & Marcia, 2009b; Berman, Weems, Rodriguez, & Zamora, 2006; Kennedy, 1999; MacKinnon & Marcia, 2002) and between differentiation of self and identity status (Ford, Nalbone, Wetchler, & Sutton, 2008; Jenkins, Buboltz Jr., Schwartz, & Johnson, 2005; Johnson, Buboltz Jr., & Seemann, 2003). No study was located that investigated both constructs together as predictors of identity status, so it is unknown what portion of the predictive ability of each is shared, warranting an examination of the two as simultaneous predictors. At the same time, because these correlations have been modest, it seems there is a need to consider other possible predictors of identity status (Kroger, 2007; Marcia, 1989; 2002). Accordingly, three constructs (mood, communication, and personal narrative), based on Eisenberg's (2001) Identity Process Model, also were considered as predictors.

The purpose of this study, then, was to test a more comprehensive model of six predictor variables (attachment-related anxiety, attachment-related avoidance, differentiation of self, mood, communication, and personal narrative) based on theoretical connections between Bowlby (1973, 1982, 1988) and Ainsworth's (1978; 1989; Ainsworth, Blehar, Waters, & Wall, 1978) work on attachment styles, Bowen's (1976, 1978) work on differentiation of self, and Eisenberg's (2001) Identity Process Model, as well as some recent empirical investigations (Arseth et al., 2009b; Berman et al., 2006; Ford et al., 2008; Jenkins et al., 2005; MacKinnon & Marcia, 2002). This study was built on the previous research and served to connect different theoretical orientations to better understand identity statuses and their predictors, which will further inform the development processes within counseling. The results showed that more variance in

identity status can be explained when using the proposed predictors than has been found in previous research. Also, the identity statuses have different predictors that significantly predict each status.

This knowledge can provide counselors with a framework for better understanding identity development and for how to facilitate clients' work in counseling. Implications for counselors, counselor educators, and researchers are discussed including recommendations of counseling interventions to encourage identity development and the associated wellness benefits.

HOW IDENTITY DEVELOPS: USING ATTACHMENT, DIFFERENTIATION,

MOOD, COMMUNICATION, AND PERSONAL NARRATIVE TO

PREDICT IDENTITY STATUS AMONG

EMERGING ADULTS

by

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CHAPTER I

INTRODUCTION

From its inception, the counseling profession has focused on human development. Counselors, more than any other helping professionals, focus on helping clients to continue to develop and overcome developmental blocks (Myers, 1992). This emphasis is prominently displayed in the current American Counseling Association (ACA) Code of Ethics that states that "ACA members are dedicated to the enhancement of human development throughout the lifespan" (ACA, 2005; p. 3). Development is seen as one of the cornerstones of the counseling profession that distinguishes it from the other mental health professions (Myers, 1992).

Typically, developmental theories focus on positive development and how people can overcome developmental challenges. Erik Erikson's (1950) theory of psychosocial development remains one of the most influential and widely used developmental theories. Erikson proposed a stage model of life-long development in which individuals face a psychosocial question at each developmental stage. Erikson's psychosocial stages are widely regarded as important to optimal human wellness and development and have led to hundreds of studies on human development, especially on identity development (Arseth, Kroger, Martinussen, & Marcia, 2009b; Kroger, Martinussen, & Marcia, 2010). Erikson (1968) emphasized the fifth stage of psychosocial development, identity versus

role confusion, because he saw this developmental stage as one of the most impactful on overall development as the individual forms a coherent sense of self during this stage.

Identity Versus Role Confusion

Erikson named this sense of self *ego identity* and connected it to optimal wellness, which has subsequently been affirmed empirically by multiple researchers (Arseth et al., 2009b; Crocetti, Luyckx, & Scrignaro, 2011; Kroger et al., 2010; Meeus, Iedema, Helsen, & Vollebergh, 1999; Schwartz, Beyers, et al., 2011; Waterman, 1999, 2007). Erikson said that an "optimal sense of identity… is experienced merely as a sense of psychosocial well-being. Its most obvious concomitants are a feeling of being at home in one's body, a sense of 'knowing where one is going', and an inner assuredness of anticipated recognition from those who count" (1968; p. 165). For these reasons, Erikson proposed that identity versus role confusion was a crucial developmental task that impacted people's overall wellness, sense of meaning and direction in life, and interactions with others.

Shortly after Erikson proposed his model of psychosocial development, James Marcia began studying identity development. Because he agreed with Erikson about the importance and impact of the identity versus role confusion stage, Marcia (1964; 1966) continued with and expanded upon Erikson's ideas of identity development by focusing on describing a person's identity. Marcia took Erikson's ideas about identity formation and focused on the exploration of and commitment to identity as the main factors of identity formation. These concepts stood out as important determinants in the outcome of

this developmental task, and Marcia focused on creating a way to more thoroughly

explore identity development (Marcia, 1964; 1966; 1980; 2002).

Marcia's Identity Statuses

Marcia (1964; 1966) posited that there were four identity statuses that can better

explain how people are currently operating in reference to identity versus role confusion.

Marcia created these statuses as an extension of Erikson's hypotheses and said that

someone's identity status is based on whether the person has a commitment to an identity

and if the individual has had or is in an identity crisis (Degges-White & Myers, 2005;

Marcia, 1964; 1966). Marcia labeled these statuses identity diffusion, identity

foreclosure, identity moratorium, and identity achievement. Identity diffusion describes a

status in which an individual has not committed to an identity and has not experienced an

identity crisis. Identity foreclosure is characterized by a person committed to an identity

without having had an identity crisis. Identity moratorium involves an individual being

in or having had an identity crisis without being committed to an identity, and identity

achievement occurs when an individual has had an identity crisis and has committed to an

identity (Marcia, 1964; 1966). The statuses are not sequential stages as an individual can

move through the different statuses at different times in her or his life and can repeat

statuses that he or she has experienced previously (Degges-White & Myers, 2005).

Erikson (1968) and Marcia (1980) proposed that identity development typically

initiated during ages 12-18, and other researchers began to investigate identity

development in adolescence (Archer, 1989; Grotevant, 1987; Kroger, 2003). More

recently, however, researchers have noticed that there seems to be a delay in identity

development where the exploration and commitment extends well into the twenties in industrialized societies (Arnett, 2000; 2004; 2011; Cox & McAdams, 2012). Because of these findings, a relatively new developmental stage, often termed *emerging adulthood*, has become popular in the literature.

Emerging Adulthood

Jeffrey Jensen Arnett (2000) studied Americans between the ages of 18 and 25 and found that their lives were strongly characterized by trying out new identities like Erikson (1968) described among adolescents. Arnett (2011) emphasized that societal changes have stimulated a delay in identity development in industrialized societies such that what occurred developmentally in the teenage years in the 1950's and 1960's is now more commonly taking place in the late teens to mid-twenties. Arnett said that this delay in committing to an identity has been influenced by enhanced educational opportunities, more choices and freedom for young women, more effective birth control and societal acceptance of sex outside of marriage, and higher median marriage ages for males and females (Arnett, 2004). Arnett (2004) named this population of 18-25 year olds *emerging adults* to reflect that many individuals in this population do not feel like adults and have not yet committed to an identity. Arnett typified this population as being in a time of identity exploration and feeling in-between adolescence and adulthood. Other researchers studying this topic have found similar results, especially among college students (Arnett, 2011; Arseth et al., 2009b; Schwartz et al., 2011a).

Traditional college students typically fall into the emerging adulthood age range and often closely fit Arnett's description of emerging adults. Many researchers have

studied this population in exploring identity development (Arseth et al., 2009b; Kroger et al., 2010) and emerging adulthood (Douglass, 2007; Shulman, Feldman, Blatt, Cohen, & Mahler, 2005; Zimmer-Gembeck & Petherick, 2006). Often, college offers the structure and flexibility to students so that they can explore who they are and what possibilities are available to them. This makes college students an ideal sample for studying identity development because many college students are actively engaged in identity exploration and commitment, they represent a wide range of identity statuses and experiences, and identity development may be more observable in this important stage of development (Arseth, Kroger, Martinussen, & Bakken, 2009a; Arseth et al., 2009b; Schwartz et al., 2011a). Many of these researchers have investigated the links between different identity statuses and how that impacts wellness and psychological distress. From this body of research, it appears that identity is an important factor in overall wellness.

Identity Status and Wellness

Since Marcia (1964; 1966) first conceptualized the identity statuses, many other scholars and researchers have investigated the validity and utility of this framework and have found that being committed to an identity is correlated with greater wellness and decreased psychological symptoms (Arseth et al., 2009b; Crocetti et al., 2011; Kroger et al., 2010; Meeus et al., 1999; Schwartz et al., 2011a; Waterman, 1999, 2007). It seems intuitive that a strong sense of self would be related to overall wellness and researchers have borne this out empirically. Consistently, researchers have found that committing to an identity that the individual believes is positive, meaning an identity that leads the individual to view himself or herself in a favorable manner, plays an important role in

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how an individual feels and what she or he is able to do (Erikson, 1968; Johnson, Makinen, & Mikkinen, 2001a; Rogers, 1951, 1957, 1980) and that having a commitment to this type of identity is correlated with increases in overall wellness (Arseth et al., 2009b; Cole, 2009; Kroger et al., 2010; Luyckx, Schwartz, Goossens, & Pollock, 2008; Schwartz et al., 2011a; Waterman, 2007). That is, the link between having a commitment to an identity (i.e., identity achievement and identity foreclosure) with greater overall wellness and less psychological distress has been well established in the literature on identity statuses. At the same time, as researchers have established a clear link between identity status and overall wellness, there also has been a growing awareness that there is a need to understand the *process* of identity development and what predictors lead to committing to an identity (Kroger, 2007; Marcia, 1989; 2002). That is, researchers have tended to look at identity development as a predictor of other outcomes, but have focused far less attention on the mechanisms that influence identity development.

Research on Identity Status

With the proliferation of identity status research, researchers have realized that there is a need to better understand the process and predictors of identity development (Arseth, et al., 2009b; Kroger, 2003; Kroger et al., 2010; Schwartz, 2001). Two primary predictors of identity status that researchers have investigated are attachment style and differentiation of self. Researchers have found some initial support for attachment style (Arseth et al., 2009a; Berman, Weems, Rodriguez, & Zamora, 2006; Kennedy, 1999; MacKinnon & Marcia, 2002) and differentiation of self (Ford, Nalbone, Wetchler, & Sutton, 2008; Jenkins, Buboltz Jr., Schwartz, & Johnson, 2005; Johnson, Buboltz Jr., &

Seemann, 2003) as predictors of identity status. Conceptually and theoretically, however,

attachment researchers and differentiation researchers have historically been polarized in

their conceptualization of healthy relationships. Accordingly, to date researchers have

examined *either* attachment style or differentiation as a predictor of identity status. No

studies were located, however, in which researchers investigated both attachment style

and differentiation of self simultaneously as predictors of identity status.

There has been some investigation into biological sex differences in identity

status, and researchers have found differences in the percentages of males and females in

the different identity statuses (Berman et al., 2006; O'Connor, 1995). Some researchers

have found that females rate higher as identity achieved and identity moratorium and that

males score higher in identity diffusion and identity foreclosure (Cramer, 2000; Frisen &

Wangvist, 2011; Meeus et al., 1999), although other researchers have not observed this

difference (Alisat & Pratt, 2012; Cramer, 2000; Hofer, Kartner, Chasiotis, Busch, &

Keissling, 2007; Kroger, 1997). As of yet, however, there is no explanation for these

differences or investigation of whether sex moderates the impact of any predictor of

identity status.

Proposed Predictors of Identity Development

Attachment Style

John Bowlby (1973; 1982; 1988) initially proposed Attachment Theory based on

observations of parent-child interactions. Based on his observations, Bowlby noticed that

children had more positive outcomes when they had a significant person in their lives

with whom they formed a deep bond. Bowlby (1982; 1988) labeled this connection an

attachment and stated that there are innate behaviors to attach with a significant person who provides comfort and support during stressful and fearful situations. Bowlby and Mary Ainsworth (1978; 1989; Ainsworth, Blehar, Waters, & Wall, 1978) refined these ideas and created what is now known as Attachment Theory. In attachment theory, how a person seeks support and comfort during times of stress is known as her or his attachment style (Arseth et al., 2009b). Bowlby and Ainsworth conceptualized three main attachment styles: secure, anxious/ambivalent, and anxious/avoidant attachment styles, with the latter two styles commonly referred to collectively as insecure attachment (Ainsworth et al., 1978). These attachment styles are sometimes referred to as attachment strategies as they manifest behaviorally in social contexts.

More recently, researchers (Bartholomew & Horowitz, 1991; MacKinnon & Marcia, 2002) have moved away from the three category classification of attachment style to consider the levels of anxiety and avoidance (low to high) on a 2 X 2 grid. This has allowed researchers to consider that both anxiety and avoidance occur on a continuum. Accordingly, the attachment styles were renamed secure, dismissive, preoccupied, and fearful attachment. People with *secure* attachment styles tend to find it easier to seek and become close with others, and to solicit help from others in times of distress; they experience low levels of both attachment anxiety and avoidance. Alternatively, people with insecure styles often find it difficult to bond with others, with the different strategies often manifesting in different behaviors. For example, people with *dismissive* attachment strategies tend to shun intimate connections as they find it uncomfortable to be with others, particularly when stressed. People with dismissive

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attachment strategies have a low level of attachment anxiety and a high level of attachment avoidance. People with *preoccupied* attachment strategies feel a desire to be close with and separated from others when stressed, but they are concerned about being rejected or unloved. Preoccupied attachment strategies are characterized by experiencing a high level of attachment anxiety and a low level of attachment avoidance. Finally, people with *fearful* attachment strategies want to be close to others and are scared that they will get hurt if they do get close to others. People with fearful attachment experience high levels of both attachment anxiety and avoidance (Arseth et al., 2009b; Berman et al., 2006).

As researchers have continued to investigate attachment strategies, some researchers have found differences in attachment based on biological sex. Several researchers (Bartholomew & Horowitz, 1991; Brennan, Clark, & Shaver, 1998; Scharfe & Bartholomew, 1995) have found that males tend to have a higher average on avoidance and females have higher scores of anxiety, but other researchers (Gentzler & Kerns, 2004; Jang, Smith, & Levine, 2002) have found no differences between biological sexes. Several researchers (Berman et al., 2006; Kennedy, 1999; Kroger, 1985) who have studied identity status and attachment have not found any significant differences between males and females. While there have not been any significant findings between biological sex and attachment when identity status was also investigated, there have been significant relationships found between attachment and identity status.

Investigations into the relationship between attachment style and identity status were started because attachment is seen as a precursor to identity status. That is, secure

attachment is hypothesized to lead to *exploration* (Arseth et al., 2009b), and identity

development is seen as a psycho*social* task (Kroger, 2003). Attachment style is thought

to start in the first year of life and significantly impact how the individual views

herself/himself and others, a phrase Bowlby (1973) referred to as the internal working

model. Attachment styles are thought to significantly impact a person's identity because

of the early and profound impact that attachment style has on the individual. In

attachment theory, if an individual feels secure when stressed or fearful, that person can

begin to have a secure base from which to explore the world. This is significant because

Marcia (1966) said that exploration and commitment are the determinants of identity

status, so an individual with secure attachment is more likely, in theory, to achieve

identity moratorium or identity achievement. Also, identity development, as Erikson

(1968) hypothesized, takes place in a social context where significant others have an

important role in providing examples for the individual to try out (identification) and in

providing feedback when the individual is constructing her or his identity (identity

formation).

Researchers have picked up on this conceptual connection between attachment

style and identity status and have recently began empirically examining this connection,

generally finding mild to moderate correlations between the two (Arseth et al., 2009b;

Berman et al., 2006; Kennedy, 1999; MacKinnon & Marcia, 2002). Arseth et al. (2009b)

conducted a meta-analysis and found that researchers had found significant relationships

between attachment style and identity status 7 out of 16 times that the relationships had

been examined. These correlations ranged from as weak as .04 to as strong as -.23.

Given the mixed findings, however, more exploration is needed.

Researchers seem to be pointing to a complex relationship between attachment

style and identity status that is not yet fully understood. For example, Kennedy (1999)

found that there were relationships between all identity statuses but identity foreclosure

(IF) with attachment styles and that individuals with preoccupied attachment styles had

higher identity diffusion (ID) and identity moratorium (IM) scores than individuals with

secure attachment styles. Additionally, individuals with fearful attachment styles had

higher IF scores than individuals with secure attachment styles, and individual with

secure attachment styles had higher identity achievement (IA) scores than individuals

with fearful attachment styles. Similarly, MacKinnon and Marcia (2002) found that there

were significant relationships between attachment styles and identity statuses with 56.4%

of individuals with secure attachment were in the IA status and 38.5% were in the IF

status, individuals with fearful attachment were spread throughout IA (33.3%), IM

(16.7%), IF (25.0%), & ID (25.0%) statuses, 60.0% of individuals with preoccupied

attachment were in the IF status, and 58.3% of individuals with dismissive attachment

were in the IA status. Overall, MacKinnon and Marcia reported a significant relationship

$(p = .0074)$ between attachment styles and identity status. Although researchers have

found some modest relationships between attachment and identity, these findings are far

from robust and consistent, suggesting that ongoing inquiry is warranted. One approach is

to combine attachment style with other predictors to consider a more complex prediction

model. One predictor that has been considered is differentiation.

Differentiation of Self

Murray Bowen (1976; 1978) developed an intergenerational approach to working with families based upon his work as a psychiatrist. Bowen had five main tenets in his approach to working with families, but the root of his approach is the concept of differentiation of self (Johnson et al., 2003). Differentiation of self is an individual's ability to remain oneself by psychologically separating from significant others while being emotionally connected with those people (Bowen, 1978; Johnson et al., 2003). Someone with a high level of differentiation would be able to sort out his/her own thoughts and feelings from the thoughts and feelings of others, and someone with a low level of differentiation would have "fused" his/her thoughts and feelings with the thoughts and feelings of others. Differentiation of self has been categorized into four components: non-emotionally reactive, taking "I" positions, emotional reactivity, and fusion with others (Skowron & Friedlander, 1998). These components have been repeatedly researched and found to follow Bowen's hypotheses about differentiation of self and its link to less psychological distress and anxiety (Peleg-Popko, 2002; Skowron & Dendy, 2004; Skowron, Stanley, & Shapiro, 2009; Tuason & Friedlander, 2000). It has been noted, however, that there seem to be sex differences with the non-emotional reactive and emotional reactivity components, where more females score higher on emotional reactivity and males higher on the non-emotional reactive component (Johnson, Thorngren, & Smith, 2001b; Peleg-Popko, 2004; Skowron, 2000; Skowron & Friedlander, 1998). There may be some important differences between men and women

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in differentiation of self and in the relationship between differentiation of self and identity status.

Differentiation of self is thought to be a factor of identity development because differentiation of self and identity statuses are both based on psychosocial development and have considerable similarities in their theoretical stances. Having an achieved identity status means that an individual would have constructed a sense of self separate from significant others. In coming to an achieved identity status, there would be a level of differentiation required to see oneself as separate from significant others and have the emotional and intellectual capability to act out this sense of self. Also, higher levels of differentiation would allow the individual more freedom to explore who he or she is. Therefore, in theory, lower levels of differentiation are likely to lead to diffusion or foreclosure identity statuses, and higher levels of differentiation are likely to lead to moratorium and achieved identity statuses.

To date, researchers have completed three studies to investigate the relationship between differentiation of self and identity status (Ford et al., 2008; Jenkins et al., 2005; Johnson et al., 2003). Ford et al. (2008) found that differentiation of self accounted for 14% of the variance in identity achievement (IA), 69% of the variance in identity moratorium (IM), 5% of the variance in identity foreclosure (IF), and 59% of the variance in identity diffusion (ID), demonstrating that differentiation appears a stronger predictor of some identity statuses than others. Jenkins et al. (2005) found that differentiation of self explained 44% of the variance in resolution of the identity versus role confusion stage. Johnson et al. (2003) investigated the predictive ability of identity statuses on

differentiation of self, and they found that the four identity statuses were able to either predict one or more subscales of differentiation of self and two identity statuses were able to predict the total differentiation of self score. Johnson et al. (2003) decided to study the predictive relationship between identity status and differentiation of self in the opposite direction than other researchers, and they did not provide substantial rationale for this directional approach. Each of these studies investigated the relationship between identity status and differentiation of self in different ways and underscored the need for further clarification on this relationship. It appears, then, that research into the relationship between differentiation of self and identity status is in its nascent stage and additional research is needed to more fully understand this relationship. Because there remains a significant amount of variance in identity status not explained by attachment style or differentiation of self, it may be important to consider other possible predictors of identity status. Put another way, researchers have struggled to find the process and predictors that lead to the different identity statuses (Arseth et al., 2009b; Kroger et al., 2010), so a new model might be needed to increase our understanding of what predicts identity statuses.

Eisenberg's Identity Process Model

One model of how individuals' construct their senses of self was proposed by Eric Eisenberg (2001). Eisenberg's model of identity development comes from the communication literature and takes intra- and interpersonal components into account, which is in accordance to Erikson's psychosocial development (Erikson, 1968; Kroger, 2003; Marcia, 1980; 2002). Eisenberg (2001) created the Identity Process Model to provide a conceptualization for how individuals create a sense of self through three

meaning making sub-processes that occur in the context of the environment that

Eisenberg calls the surround (See Figure 1).

Figure 1. Eisenberg's (2001) Identity Process Model with Meaning Making Subprocesses
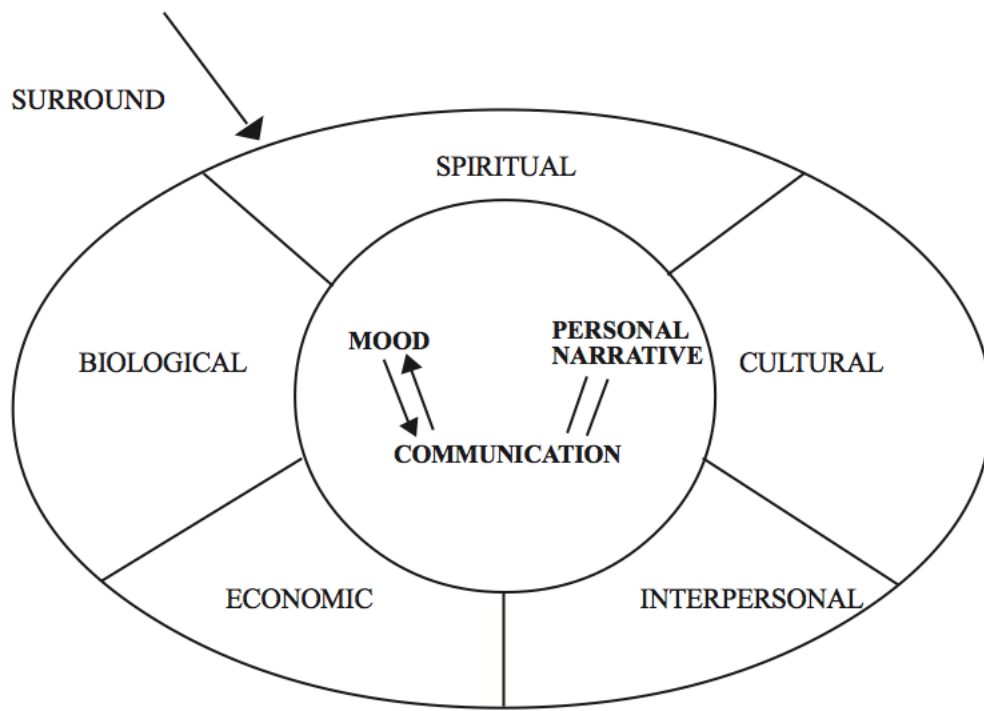
Eisenberg (2001) hypothesized that three meaning making sub-processes work

together in shaping a sense of self. The three sub-processes are:

- *mood*, the individual's orientation to and beliefs about the individual's future;

- *personal narrative*, the life story that the individual continually creates,

  largely based on the perceived power and possibility in the individual's life;

  and

- *communication,* the interpersonal style of being open or defensive to others'

   worldviews.

Eisenberg (2001) proposed that people constantly use these sub-processes to make

meaning out of the events that happen in their lives and form a sense of self. Using this

model alongside attachment style and differentiation of self might enhance the ability to

predict identity status. The meaning making sub-processes of mood, personal narrative,

and communication might be able to explain additional variance beyond what can be

predicted by attachment style and differentiation of self. Although it is theoretically

feasible to consider these sub-processes as potential mediators of the relationship

between attachment, differentiation, and identity status, to date researchers have not

empirically examined Eisenberg's model, so examination of a mediating process seems

premature at this point.

Purpose of the Study

The purpose of this study is to examine how attachment style, level of

differentiation, mood, personal narrative, and communication predict identity status

among a sample of emerging adult college students. While there are numerous studies

that examine the impact of identity status on various outcome measures, the predictors of

identity status are not yet understood (Kroger et al., 2010; Meeus et al., 1999). Recently,

researchers have started to investigate what factors impact an individual's identity status.

Specifically, researchers have investigated if attachment style (Arseth et al., 2009b;

Berman et al., 2006; Kennedy, 1999; MacKinnon & Marcia, 2002) and differentiation

(Ford et al., 2008; Jenkins et al., 2005; Johnson et al., 2003) predict identity status, with

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results being mixed. Although researchers have found modest relationships between both attachment style and level of differentiation with identity status, researchers have not examined the two (attachment and differentiation) simultaneously. This study will investigate these factors at the same time as well as consider additional factors (mood, personal narrative, and communication) drawn from Eisenberg's model of identity development (2001) as possible predictors of identity status (Marcia, 1966). A secondary purpose of the study is to examine the effect of biological sex on differentiation of self and identity status.

Statement of the Problem

While researchers have found consistently that committing to an identity is related to greater wellness (Arseth et al., 2009b; Crocetti et al., 2011; Kroger et al., 2010; Meeus et al., 1999; Schwartz et al., 2011a; Waterman, 1999, 2007), there are still many questions about how to help clients attain an identity status that is correlated with greater wellness (i.e. identity achievement and identity foreclosure; Kroger et al., 2010; Meeus et al., 1999). Although developmental theory is foundational to our work as counselors, there is little empirical evidence about the factors that influence identity development (Arseth et al., 2009b; Kroger et al., 2010). Researchers and scholars have provided information describing identity development (Bosma & Kunnen, 2001; Cote & Levine, 1988; Grotevant, 1987; Koepke & Denissen, 2012; Marcia, 2002) but provide insufficient information on how individuals create their sense of self. Without such knowledge, counselors may know how to assess identity development but there is less clarity about how to facilitate optimal development in clients and address the related depression and

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anxiety issues that are commonly found with a lack of commitment to an identity (Meeus et al., 1999; Schwartz et al., 2011a). That is, there is a lack of information to guide practitioners in how to work with clients to address their identity issues that negatively impact their mental health. Two constructs, attachment style and level of differentiation, are now being researched to see how they impact an individual's identity status; however, there have not been any studies that have looked at both constructs together as predictors of identity status. Despite a large research base for attachment style, differentiation, and identity status separately, there still remains a large gap in the knowledge of the relationship between these constructs and of the predictors of identity statuses. Further, in spite of some evidence that these constructs may be somewhat biologically based (i.e., different for men and women) (Berman et al., 2006; O'Connor, 1995), researchers have not consistently examined biological sex in their research. Finally, the relatively small amount of variance explained by attachment style and differentiation of self in these studies may point to the need to include other predictive factors. One model that provides direction for other potential predictors is Eisenberg's Identity Process Model.

Research Questions

1. What are the bivariate relationships among mood, personal narrative, communication, attachment-related anxiety, attachment-related avoidance, differentiation of self, and identity status among a college sample of emerging adults aged 18-25?

2. What effect do mood, personal narrative, communication, attachment-related anxiety, attachment-related avoidance, and differentiation of self have on the prediction of identity status?

3. Does biological sex have an effect on differentiation of self?

4. Is it important to predict identity status separately for each biological sex?

Need for the Study

Identity formation has interested scholars dating back at least as far as Plato (Gerson, 2004) but only gained systematic attention when Erikson (1968) developed his theory of psychosocial development. Having committed to an identity that the individual perceives as positive is known to correlate with wellness (Arseth et al., 2009b; Crocetti et al., 2011; Kroger et al., 2010; Meeus et al., 1999; Schwartz et al., 2011a; Waterman, 1999, 2007), and identity is understood as an integral part of development (Erikson, 1968; Kroger, 2000; Marcia, 1964; 1966; 1980). Wellness and development are the cornerstones and great strengths of the counseling profession. Development is and has been at the heart of counseling, and wellness sets the counseling profession apart from psychology and social work (Myers, 1992). It is important that counselors understand identity development and help clients to work towards greater wellness through commitment to an identity that the individual believes is positive. Additionally, clients with a lack of commitment to an identity have been found to have mental health concerns, most notably higher levels of depression and anxiety (Meeus,et al., 1999; Schwartz et al., 2011a). Often, clients come to counselors with negative self-concepts, poor self-efficacy, and the potential for higher functioning and more satisfaction in their

lives. Counselors use their own conceptualizations of what will help change and improve

their clients' identity and mental health, but they are not receiving comprehensive

training on evidenced-based approaches to facilitate identity development because none

currently exist beyond trying to stimulate identity exploration and/or commitment

(Schwartz et al., 2011a). Counselors can become even more effective in increasing a

client's sense of self and wellness by further understanding identity and identity

development to treat the related mental health issues. Furthermore, the American

Counseling Association (ACA) Code of Ethics explicitly states in the preamble that

counselors are to work to enhance human development throughout the lifespan (ACA,

2005). All counselors are limited to the extent they can do this by the current limited

empirical data on factors that influence identity development. Therefore, it is important

for researchers to inform identity-focused counseling and counselor education.

Recently, researchers have begun to investigate if attachment style is a significant

factor in identity development (Berman et al., 2006; Lubenko & Sebre, 2007; Nawaz,

2011; Reich & Siegel, 2002). Erikson (1968) suggested that the second step in identity

formation, identification, has a strong focus on the significant people with whom the

individual has a close relationship. This premise has informed the recent attention to

attachment style as a possible predictor of identity. These researchers have offered some

empirical evidence that attachment style has some role in how individuals create their

sense of self and identity, but different researchers have found substantively different

strengths in the predictive relationship between attachment style and identity status,

which may suggest that alongside attachment style there are other important predictors

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(Arseth et al., 2009b). Similarly, researchers have begun to consider if differentiation is a factor in identity development (Ford et al., 2008; Jenkins, et al., 2005; Johnson, et al., 2003). The rationale for looking at differentiation is based on the fact that both differentiation and identity status are based in psychosocial development and are closely related. Some researchers have found that differentiation has the potential to predict identity status (Ford et al., 2008; Jenkins, et al., 2005; Johnson, et al., 2003), although the variance found to be explained by differentiation has a substantial range (from as low as .05 to as high as .69; Ford et al., 2008). Conceptually, researchers have tended to either conceptualize identity formation through an attachment lens, focusing on the security of early attachments, or through a differentiation lens, emphasizing the importance of differentiation from others to form individual identity. Accordingly, researchers have not considered these two predictors simultaneously. It is possible, however, although unexamined to date, that both attachment style and differentiation account for unique variance in identity status.

Recently, Eisenberg (2001) proposed a model to explain the identity development process within a communications framework. Eisenberg hypothesized that an individual's mood, personal narrative, and communication are the ways that the individual makes meaning and establishes identity. Eisenberg's model, although popular in the communications literature, has not been empirically validated. Accordingly, the three sub-processes of Eisenberg's model (mood, personal narrative, and communication) will be integrated into the examination of attachment style and differentiation. Understanding the impact of these predictors can allow counselors to target the important

aspects related to identity development and facilitate counselors' work with addressing their clients' identity-related mental health issues.

Some researchers have found differences in differentiation of self and identity status based on biological sex (Berman et al., 2006; Johnson et al., 2001b; O'Connor, 1995; Peleg-Popko, 2004; Skowron, 2000; Skowron & Friedlander, 1998). Currently, it is uncertain the impact of biological sex on differentiation of self and identity status or if there is an interaction effect between biological sex and differentiation of self on identity status.

Definition of Terms

Attachment is "a deep, emotional tie that one individual forms with another" (Arseth et al., 2009b; p. 4).

Attachment Style is an individual's typical intrapersonal and interpersonal responses in order to cope with stressful and fearful situations, as measured by the Experiences in Close Relationship Scale (ECR-S) – Short Form (Mei, Russell, Mallinckrodt, & Vogel, 2007) and includes both attachment-related anxiety and attachment-related avoidance.

Dismissing attachment is characterized by low levels of anxiety and high levels of avoidance (Berman, et al., 2006).

Preoccupied attachment is characterized by high levels of anxiety and low levels of avoidance (Berman, et al., 2006).

Secure attachment is characterized by low levels of both anxiety and avoidance (Berman et al., 2006).

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Fearful attachment is characterized by high levels of both anxiety and avoidance (Berman et al., 2006).

Communication is an individual's interpersonal approach in terms of the openness and defensiveness to others' worldviews (E. Eisenberg, personal communication, June 8, 2012), as measured by the Interpersonal Communication Inventory (ICI; Bienvenu & Stewart, 1976).

Differentiation of self is an individual's ability to remain oneself by psychologically separating oneself from significant others while being emotionally connected with those people (Bowen, 1978; Johnson et al., 2003), as measured by the Differentiation of Self Inventory-Revised (DSI-R; Skowron & Schmitt, 2003).

Ego Identity "is the awareness of the fact that there is a selfsameness and continuity to the ego's synthesizing methods, the *style of one's individuality*, and that this style coincides with the sameness and continuity of one's *meaning for significant others* in the immediate community" (Erikson, 1968; p. 50; emphasis in original).

Emerging Adulthood is a developmental period that most people in industrialized societies experience around ages 18-25 (Arnett, 2006). Emerging adulthood "is a time of life when many different directions remain possible, when little about the future has been decided for certain, when the scope of independent exploration of life's possibilities is greater for most people than it will be at any other period of the life course," and "is distinguished by relative independence from social roles and from normative expectations" (Arnett, 2000, p. 469).

Identity is "the perception of the selfsameness and continuity of one's existence in time and space and the perception of the fact that others recognize one's sameness and continuity" (Erikson, 1968, p. 50).

Identity Status is the current status of an individual towards his or her identity in terms of having committed to an identity and having searched or in the process of searching for his or her identity, as measured by the Extended Objective Measure of Ego Identity Status (EOMEIS-II; Bennion & Adams, 1986).

Mood is an individual's general orientation towards time (i.e. hopeful, anxious, excited, happy, depressed, angry, etc.) (E. Eisenberg, personal communication, June 8, 2012), as measured by the Level subscale on the Mood Survey (MS; Underwood & Froming, 1980).

Personal Narrative is an individual's ongoing authorship and editing of her or his life story and the perception of power and possibility of the individual as well as the individual's openness to change (E. Eisenberg, personal communication, June 8, 2012), as measured by the Personal Power and Possibility Scale (PPPS).

Sense of Self is a personal perception of whom one is that does not have to be confirmed or supported by others.

CHAPTER II

REVIEW OF THE LITERATURE

What I have called ego identity, however, concerns more than the mere *fact* of existence. Ego identity then, in its subjective aspect, is the awareness of the fact that there is a selfsameness and continuity to the ego's synthesizing methods, the *style of one's individuality,* and that this style coincides with the sameness and continuity of one's *meaning for significant others* in the immediate community. Erik Erikson (1968, p. 50; emphasis in original)

In Chapter 1, a purpose and rationale for the current study were introduced. This chapter provides a review of the relevant literature for identity status and hypothesized predictors. Chapter 2 begins with the background of identity and identity status and then explores the need to investigate predictors of identity status. Two of the most promising predictors of identity status, attachment and differentiation, will be explored and research specific to attachment, differentiation, and identity will be reviewed in detail. Because of the limited predictive power of these predictors in previous research, the need to include other predictors will be discussed, along with one model of identity formation that holds promise for empirical examination. Finally, the chapter will conclude with a summary of the relevant literature on identity status and its proposed predictors.

Identity

Often, the emphasis on studying identity is traced back to Erik Erikson because of his work describing identity development and the subsequent research using Eriksonian concepts (Kroger, 2007). It is not clear when people began to think about their identity

but identity has been pondered at least as far back as Plato (Gerson, 2004). Erikson (1968) proposed a psychosocial model of development that has influenced and, indeed, continues to influence the work of counselors, psychologists, psychiatrists, and social workers, among others. Erikson wrote most frequently about the identity stage of development. Similarly, hundreds of researchers have followed up on Eriksonian ideas of identity development (Arseth et al., 2009b; Kroger et al., 2010). Consistently, researchers have shown that committing to an identity leads to greater overall wellness and a decrease of psychological symptoms (Arseth et al., 2009b; Crocetti et al., 2011; Kroger et al., 2010; Meeus et al., 1999; Schwartz et al., 2011a; Waterman, 1999, 2007). Therefore, it is important for counselors to be able to understand how to facilitate clients' identity development to help their related mental health concerns, and it is important for counselor educators to provide such information, consistent with the 2009 standards of the Council for Accreditation of Counseling and Related Educational Programs' (CACREP) for Human Growth and Development core curriculum area (CACREP, 2009).

Identity and Sense of Self

Often, identity is confused with sense of self due in large part to the large amount of overlap in the two concepts. From the quote at the beginning of the chapter, Erikson provides a description of identity that can be used to distinguish the two related concepts. A sense of self is any subjective awareness, experience, or reflection of an individual about himself or herself. It can be an accurate or inaccurate awareness, thought, or belief about oneself and can be as simple as "I am alive," "I am smart," or "I am small." Often, our sense of self develops early in life based primarily on our experiences with significant

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others in our life (Ainsworth et al., 1978; Case, 1991; Gallagher & Meltzoff, 1996).

Identity, on the other hand, is a more comprehensive understanding or awareness of one's self. As Erikson (1968) stated, identity goes beyond being aware of the fact that one is alive and includes the style of being that comes from establishing patterns that are recognizable to the individual and to significant others in that individual's life. Identity contains and expands upon sense of self to involve a reflective aspect of the past and present of the individual's life.

Recent Conceptual Perspectives on Identity

The current conceptualization of what identity is and how identity is constructed comes from the fields of psychology, sociology, communication, and symbolic interaction. Collectively, these disciplines have created a foundation of identity being forged through interpersonal interactions. The earliest identity development work was initiated by Charles Cooley (1902) and was expounded upon by other theorists, most notably George Herbert Mead, Erik Erikson, Erving Goffman, and William Rawlins.

Cooley (1902) was a forerunner of the modern conceptualization of identity. Cooley wrote that the development of a sense of self was based on the social interactions that he or she has and the individual's thoughts on how others perceive one's self based on the interactions between those two individuals. The sense of self, or "self-idea" as Cooley called it, comes from three cognitive appraisals, what an individual imagines his or her appearance to be to the other person, the individual's imagination of the other person's judgment of that appearance, and the feeling that the individual gets based on his or her imagination of the other person's judgment (Cooley, 1902). Because of this,

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Cooley called his conceptualization the "looking-glass self" theory because the individual gets her or his sense of self through thinking about the perceptions of others. From the looking-glass self perspective, the "other" is important as individuals will imagine different judgments from different people. Further, often these judgments are dependent on the individual's sense of the other. For example, a fifth grader might feel mighty compared to other elementary school students and then feel very small the next fall as a sixth grader among other middle school students. So whom the individual chooses to use as the looking-glass for himself or herself can change the individual's sense of her or his identity (Cooley, 1902). The most important contribution of Cooley's model for identity is the notion that social interactions impact an individual's identity. Cooley's looking-glass self model started the trend for researchers to take into account interpersonal interactions in identity and identity development.

Grounded in Cooley's work, George Herbert Mead described the mechanics of interpersonal interactions. Mead (1934) emphasized that the language that people use to communicate with each other and the symbols that they send and interpret are key to making meaning for individuals and in society. Mead discussed the complicated interplay between one's mind, sense of who they are, and the culture in which they live. Mead emphasized that the meaning that a person makes comes from communication, the personal interpretations of that symbol, and the individual's subjective experience during the interaction. Mead (1934) discussed gestures and language as ways to send messages in our environment, which are interpreted symbolically based on societal and individual sense of meaning. This way of looking at the messages that people send is called and is

the basis of symbolic interactionism. There is a complex interplay between how an individual feels, what he or she will do that sends symbolic communication to the person she or he is interacting with, the interpretation of those symbols within the cultural framework, the response to that symbol including experiential and behavioral components, and starting over with the receiver now giving symbols back to the original sender. Therefore, each social interaction is full of meaning embedded in the actions and words that are used (Mead, 1934). Mead provided the mechanics inherent in the interpersonal interactions that an individual uses to form a sense of identity.

When looking at the language and symbols inherent in communication, Mead discussed another interesting finding about identity by investigating the nature of the terms "I" and "Me". Mead noticed that there is a difference between the two words in that the use of "Me" refers to the self as an object that is being reflected upon and "I" as the attitude towards "Me" and others (Mead, 1934). In essence, Mead broke apart the terms so that the "Me" is the object of whom an individual is that she or he can reflect upon and observe. Mead thought that the "Me" is constructed by how significant others treat the individual. Therefore the "Me" is seen as a social self because the self is created through social interactions, specifically with significant others, that shape who the "Me" is (Mead, 1934). Many social psychologists have continued studying this concept of the social self (see Brewer & Hewstone, 2004; Gergen, 1971; Shotter & Gergen, 1989), which is separate from identity and identity status. The "I' is more related to identity in regards to "I' being the spontaneous, non-reflective responses that an individual engages in (Mead, 1934). The "I" is the subject, the doer, and the individual. While "Me" is

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socially constructed, the "I" uses what the "Me" has learned and acts accordingly. This

line of thinking has evolved into more recent focus on the social self (e.g. Brewer &

Hewstone, 2004; Gergen, 1971; Shotter & Gergen, 1989), but the concept of identity

being socially constructed remains relevant.

Similarly, Erik Erikson discussed identity as socially created, but Erikson

extended the conversation by describing identity as a part of overall development.

Erikson (1968) studied the impact and development of identity with the assumption that

identity is strongly impacted by the influence of others. Erikson created a model of

development that spanned the entire lifespan and set identity as one of the crucial tasks in

life. Identity versus role confusion is the fifth developmental task in Erikson's

developmental model, and Erikson argued that identity begins to emerge in adolescence

(ages 12-18; Erikson, 1968). Erikson delineated that individuals have group identities

and personal identities and that both are impacted by social and intrapsychic factors.

Because Erikson saw these two types of factors in identity, Erikson called his approach

psychosocial to emphasize both the intra- and interpersonal influences of development.

In the context of going through developmental stages in a specific time and place and

with important relationships with significant others, Erikson believed that individuals

form an identity from their interactions and feedback from others, like Cooley and Mead

suggested, and from their own internal psychological processes regarding themselves and

their interactions with others (Erikson, 1968; 1980). Erikson posited that the group

identity emerges first as individuals gain understanding of themselves and others based

off of their interactions with others. This happens through the process of *introjection* as

individuals use the conceptualizations of their caregivers to create their sense of self.

Later, through the process of *identification*, individuals use their peers to reconstruct their

understanding of who they are. Therefore, this group identity emerges first based on the

individuals' interactions with others. Erikson (1968, 1980) did not see these processes of

introjection and identification as formally creating an identity as both of these are

precursors to actual identity formation. In these first two steps, the individual's sense of

self is adopted from others.

     Identity formation is the later process where the individual actually forms an

identity, as opposed to merely a sense of self. In the previous steps (introjection and

identification), the individual had a sense of what he or she was like, but this is a more

fluid conceptualization that is not formed into a "*style of one's individuality*" (Erikson,

1968, p.50). Identity formation builds upon the individual's sense of self and interactions

with others. Erikson theorized that identity starts to form when the individual notices a

selfsameness and continuity in how he or she thinks and responds. The personal identity

builds from the individual's conceptualization of herself or himself and becomes more

established as the individual commits to this identity. The commitment to the identity is

based on both the individual's own perception of self and how significant others also

perceive the sameness and continuity of the individual (Erikson, 1968). In this, the

psycho and *social* aspects of identity are manifested in that the individual must internally

commit to an identity and externally validate or affirm this identity. Erikson's

psychosocial approach to identity is congruent with Cooley's and Mead's ideas of

identity and provides more context for the developing identity in terms of a

developmental task in adolescence and in how identity is socially constructed and reinforced.

Another way that identity has been investigated is through the taking on of specific identities or personas in specific contexts. One of the pioneers of this line of thought was Erving Goffman who examined how people communicate and interact in social contexts. Goffman (1982) observed people with different levels of mental health and used his knowledge of actors and the stage to write out his observations and thoughts. Like actors portraying characters on a stage, Goffman saw that people can put on different portrayals of themselves to show to others (1982). Because Goffman went to different cultures and locations, he noticed that culture and society are major factors in what face we show, which manifests in our actions, verbalizations, posture, and tone of voice. Goffman called this phenomenon *face-work* because of the way that people worked to project and maintain their face, or their identity, and the faces or identities of others. He noticed that there are ways that different societies expect people to act and that some individuals do not conform to the cultural standards. Goffman (1982) observed that people in the mainstream society would treat these individuals differently. In that regard, Goffman's work parallels Cooley's looking-glass self in that how others treat an individual impacts the construction of sense of self.

This became especially evident when Goffman (1982) observed the patients of an inpatient mental health facility. Goffman noticed that these patients often violated social norms and rules and did not engage in face-work. Therefore, others treated the mental health patients differently, and Goffman hypothesized that this social treatment helped

reinforce the negative interactions that the mental health patients had with people in the

mainstream culture (Goffman, 1982). The face-work of projecting and maintaining

identity in culturally expected ways is in accordance with more recent research on the

social self (Brewer & Hewstone, 2004; Gergen, 1971; Shotter, & Gergen, 1989) and with

Mead's symbolic interactionism and concepts of "I" and "Me." Goffman's primary

contribution to the scholarly discourse on identify formation is his emphasis on cultural

impact and standards regarding communication.

In slight contrast, William Rawlins (2009) studied identity on a more relational

level by investigating friendships. While Rawlins agreed that there is a societal and

cultural impact on identity, he noticed that the influence of friendship often has a stronger

impact on an individual's sense of self than these broader factors. In particular, Rawlins

discussed the tension between connecting with the friend and being oneself. This

relationship, he argued, automatically creates a tension that requires the friends to have to

make choices (Rawlins, 2009). Being different people, friends will have similar and

different views on topics and will have different preferences. This creates forces that pull

the friends closer together and farther apart, which lead to an awareness of a sense of self

and a sense of the other. Rawlins agreed with Mead and Cooley that there is a need to

find oneself through the perceptions of others. Within this framework, though, Rawlins

posited that friendship relationships provide a deeper and important perception of an

individual's identity (Rawlins, 2009).

Rawlins argued that this happens primarily through the processes of individuation

and participation. Individuation is seeing oneself as separate from others through an

activity, and participation is seeing oneself as "a relational entity connected with others" (Rawlins, 2009, p. 27) through activity. While these concepts seem to be polar opposites, Rawlins writes, "[*i*]*ndividuation and participation implicate each other in their meanings and consequences. They are always already present simultaneously for human activity and identity*" (Rawlins, 2009, p. 28; emphasis in original). Rawlins sees individuation and participation as necessary for understanding an individual's self and yet also as a threat to that sense of self. As an individual draws closer to another person, there is an openness and connection to the other that provides a clearer and more detailed picture of whom the individual is, and yet the individual also is becoming more connected with the other and less defined as a separate person. Rawlins (2009) sees close friendships as a continual dialectic of self and other that help create our sense of self, call into question our sense of self. Further, cross-cultural conflict may occur within the individuation-participation dialectic. This happens through the communication between friends and the co-creation of stories and how storytelling shapes an individual's personal narrative.

A significant part of human communication is through telling stories, and storytelling is an important dynamic in friendships that dramatically impacts an individual's sense of self. Because close friends share their lives together and tell each other the narratives of what happens in their lives, Rawlins (2009) wrote, "*...friendships are ongoing narrative achievements reflexively shaping our identities, convictions, participation, and possibilities*" (p. 47; emphasis in original). Therefore, the telling of stories and bonding of friends lead to changes in the personal narratives of the

individuals. Friendships have open communication that leads to changes in personal

narratives, to changes in the senses of self of the friends.

Others agree with Rawlins point of identity being connected with stories or

narratives. McAdams (2001) argued that identity "takes the form of a story, complete

with setting, scenes, character, plot, and theme" (p. 101) and that people "reconstruct the

past, perceive the present, and anticipate the future in terms of an internalized and

evolving self-story, an integrative narrative of self" (p. 101). Numerous scholars have

argued that identity should be seen through a narrative lens (Cox & McAdams, 2012,

McLean, Pasupathi & Pals, 2007; Singer, 2004; Thorne, McLean, & Lawrence, 2004).

These researchers have argued that the personal life story provides the individual with

unity and purpose (Cox & McAdams, 2012). This narrative identity is becoming another

significant conceptualization of identity, such as social self and social identity. A

narrative identity framework coincides with the work with Cooley, Mead, Erikson, and

Goffman as all assert that social interactions are an important influence in identity

formation.

As Mead (1934) and Cooley (1902) highlighted, a sense of self develops in large

part through interactions with others. There is something about interacting with another

person that provides an individual with feedback and experiences of self. Erikson (1968)

further elucidated this concept by discussing that individuals have a group and personal

identity that is created by inter- and intrapersonal factors. Goffman (1982) emphasized

that people manage their "face", or cultural identity, because their social interactions are

an important factor in the construction of their identities. Rawlins (2009) focused on the

close friendships and discussed how a tension of individuation and participation can particularly provide a clear, coherent, and experienced sense of self. Rawlins (2009) underscored that this happens when friends can share and co-create their personal stories together and engage in open communication. Similarly, McAdams (2001) stated that identity is understood through narratives and stories that provide unity and purpose to the individual. These theorists overall agree that strong bonds with friends and family and the commonplace interactions with others in society impact who individuals are by creating and defining their identities. It seems, then, that aspects of relational development may influence the establishment and stability of identity.

Social and Personal Identity Conceptualizations

The current conceptualizations of identity have split into viewing identity on either a social or a personal level. Social identities have been further investigated by sociologists, psychologists, and counselors because of the impact of how social identities impact individuals through interpersonal interactions and their resulting sense of self. Researchers such as Kenneth Gergen (1971), Marilynn Brewer, and Miles Hewstone (Brewer & Hewstone, 2004) have been among the forerunners of investigating the social identity or social self, and other researchers including Erikson (1968), Kay Deaux (1992; Stets & Burke, 2000), John Hewitt (1989; 1997), Steven Hitlin (2003), and Dan McAdams (2001) have discussed the personal identity. Both perspectives work to answer the question, "Who are you?," although there is a different level of analysis that differentiates the two perspectives. Researchers who focus on social identity look at the group membership or social level, while researchers who focus on personal identity look

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at the individual level to answer the question (Vignoles, Schwartz, & Luyckx, 2011).

While the researchers agree that both social and personal influences are important in

considering identity, they typically focus primarily on only one of the perspectives. There

are many books and articles that describe social identity and the benefits of viewing

identity from this perspective (see Brewer and Hewstone, 2004, Shotter and Gergen,

1989, and Schwartz, Luyckx, and Vignoles, 2011b for additional readings), and there are

substantial benefits from taking this perspective on identity. However, this study and

chapter focus on personal identity and how it impacts individuals.

Personal identity focuses at the individual level for defining and describing the

identity of an individual. Even within the community of researchers who focus on

personal identity, there are various perspectives, definitions, and models of identity.

Self-esteem (Kernis, Lakey, & Heppner, 2008), values and beliefs (Marcia, 1966;

Waterman, 1999), "life story" (McAdams, 2006), moral, spiritual, and religious beliefs

(Fowler, 1981; MacDonald, 2000), and desired and/or future selves (Markus & Nurius,

1986) are all related but distinct ways of conceptualizing personal identity (Vignoles et

al., 2011). They are united in the view that personal identity is usually defined by the

individual and is a developmental process in that identity shifts over time and takes time

to come to maturity. Many of these perspectives emerged out of Erikson's psychosocial

development model, and the development of identity is often a focus of investigation

(Kroger, 2007; Arseth et al., 2009b).

Development of Identity

      With personal identity, researchers agree that individuals are not born into a specific identity and view of self but that identity develops over time (Erikson, 1968; Kroger, 2007; Phinney, 1989; Waterman, 1982). Most of the identity theories parallel an Eriksonian approach to identity development in that there is often a psychological and/or social conflict for an individual that leads to either commitment to a specific identity or confusion as to personal identity. This approach has encouraged the development of a large number of models of specific identity development including racial/ethnic (Cross, 1991; Helms, 1990; Kim, 1981; Phinney, 1989), sexual (Dillon, Worthington, & Moradi, 2011; McCarn & Fassinger, 1996; Worthington, Savoy, Dillon, & Vernaglia, 2002), gender (Martin & Halverson, 1981; West & Zimmerman, 1986), vocational (Bordin, Nachmann, Segal, 1963; Hirshi & Herrmann, 2012; Super, 1953), cognitive (Piaget, 1971), moral (Kohlberg, 1976, 1981), and faith (Fowler, 1981) identities. While there are many differences between the identity development models, the models all purport that identity develops over time based on individual and social factors and experiences. The models are all grounded in a developmental perspective of identity forming over a period of time and having an influential impact on the individual's life. The most comprehensive model of identity development was theorized by Erik Erikson.

Erikson's Model of Identity Development

      The forerunner of identity development is Erikson (1968) through his investigation and proposal of the psychosocial development stages. Erikson theorized that individuals go through eight psychosocial developmental stages and conflicts

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throughout the lifespan. His model was the first developmental model that covered the entire lifespan from birth to older adulthood. In the fifth stage of his model (ages 12-18), Erikson (1968) said that adolescents experience conflict in conceptualizing their identity. While Erikson said that these developmental conflicts can reappear later in life, he proposed that this time period was crucial in the development of identity for adolescents and was important in helping them to understand their place in society and how they would enact their various roles in life.

Erikson (1968) argued that identity development is impacted by the successful or unsuccessful resolution of the previous four developmental conflicts (trust versus mistrust, autonomy versus shame and doubt, initiative versus guilt, and industry versus inferiority) as well as two precursor stages of identity development. Erikson hypothesized that each of the developmental conflicts and stages are either made easier or harder based on successful or unsuccessful resolution of the previous developmental stages. If an infant learns that he or she can trust, then the toddler is more likely to have an easier task of being able to become autonomous than a toddler who developed a greater sense of mistrust. Therefore, the first four developmental stages are important to identity development, although Erikson further described two precursor stages, *introjection* and *identification*, of identity development that occur alongside the earlier developmental tasks (Erikson, 1968). In the introjection stage of identity development, an individual begins to gain a sense of self based on how her or his caregivers perceive the individual. The individual, without critical thought or analysis, takes in the caregivers' perspectives about herself or himself and forms an initial sense of self. As the

individual continues to grow and develop, he or she has more interactions with peers and the perspectives of peers become important as identification occurs. The individual's sense of self evolves as the perspectives and interactions with peers also are taken into consideration (Kroger, 2007). These steps agree and are in alignment with how Cooley (1902), Mead (1934), and Rawlins (2009) described identity development in that the perspective of significant others, including friends and peers, shape an individual's identity. Erikson described these steps as occurring during pre-adolescence and that the final and more comprehensive step of identity development, identity formation, begins to happen as the individual moves into adolescence. In identity formation, identity development steps out of the background and into the forefront for the adolescent.

During adolescence, identity becomes more important and a primary focus. Different styles of relating with others in various situations become necessary in relating with peers, with parents, with teachers, with employers, and with other adults (Erikson, 1968). Often, this is a complicated and difficult process that can lead to success and frustration for an adolescent and entails trying many different approaches through repeated interactions with many different types of people. Typically, adolescents begin to expand their social interactions beyond family, teachers, and peers and their conceptualization of who they are becomes more nuanced and intricate. Over repeated interactions over several years, identity begins to be formed based on the construction, challenging, expansion, and reconstruction of the adolescents' identity. Erikson (1968) said that there is an exploration of identity through these interactions and that ideally a commitment to an identity would occur. Successfully resolving this process leads to the

emergence of and commitment to an ego identity, which Erikson described as the

recognition and synthesis of an individual's style of individuality where he or she

recognizes herself or himself as the same over time and others also recognize this person

as acting the same over time (Erikson, 1968). Therefore, identity is constructed based on

the integration of the *psychological*, internal processes and sense of self as well as the

social, external interactions with and perceptions of others. In essence, identity

development is a complicated process in which an individual tries different ways of being

and interacting with others over a substantial period of time that hopefully ends with an

individual and communal awareness of who the individual is.

Important Contemporaries of Erikson in Identity Development

William Perry and Arthur Chickering were contemporaries of Erikson who

proposed identity development models. Perry described intellectual and ethical

development, and Chickering focused on development during the college years. Both

models have some overlap with Erikson's psychosocial development, though they add

further information on identity development.

William Perry (1970) completed interviews with college students to describe

possible positions that the students took on knowledge and philosophical viewpoints.

Specifically, Perry investigated what are possible positions in regards to how students

think about what is knowledge, truth, values, meaning, and responsibilities of learning.

He concluded his research by proposing a nine-position sequence that arrays from seeing

knowledge as something that absolutely exists and can be provided by experts to viewing

the world and the self pluralistically with an individual's identity and lifestyle understood

in different roles in various situations (King, 1978). The positions are arranged into four categories: dualism (positions 1 and 2), multiplicity (positions 3 and 4), relativism (positions 5 and 6), and commitment in relativism (positions 7-9). Perry's model is useful in looking specifically at how mental development impacts the way that individuals perceive themselves and the identities that they may take because of the way that they view the world, truth, values, and meaning.

Arthur Chickering (1969) proposed a model of college student development that uses seven vectors to describe identity development for undergraduate students. Chickering agreed with Erikson that identity was a very important developmental task, though he said that the crucial time period of identity development is in college and not adolescence. Like Eriksonian development, the vectors of development are also psychological and social processes in which internal mental processes are significantly impacted by interactions with parents and peers. However, Chickering (1969) proposed seven vectors, or specific areas of development, in which students develop during the college years.

The seven developmental vectors are developing competence, managing emotions, developing autonomy, establishing identity, freeing interpersonal relationships, developing purpose, and developing integrity. Chickering (1969) proposed that the vectors occur stepwise fashion in that each vector is an important predecessor to progressing to the subsequent vector and completion of prior vectors lays a foundation that leads to developing in the later vectors. In Chickering's model, each vector is a significant in development and is related to establishing identity.

Chickering said that the "[d]evelopment of identity depends in part upon the other vectors already mentioned: competence, emotions, and autonomy" (p.13; 1969) and that "[o]nce achieved, a solid sense of identity fosters changes in other major vectors of development: the freeing of interpersonal relationships, the development of purpose, and the development of integrity" (p.14), which parallels Erikson's (1968) views on identity. Chickering described identity development as similar to finding human rhythms, rhythms that have a intensity and frequency that resonate with the individual to provide information about what types of experiences are satisfying, safe, or self-destructive. Specifically in the development during college, Chickering's (1969) said that identity is established by exploring and clarifying physical needs, overall characteristics, personal appearance, and sexuality. While Chickering understood that identity development occurred outside of college, he focused specifically on what happens for college students as they work to establish their identities during the traditional college years. Recently, researchers (Arnett, 2000; 2004; 2011; Cox & McAdams, 2012; Crocetti et al., 2011; Douglass, 2007; Frisen & Wangqvist, 2011) also have investigated identity development in college students and, similar to Chickering, found that identity development continues to significantly occur beyond the teenage years and into the twenties, a development period nor commonly called emerging adulthood.

Identity in Emerging Adults

In the 1950's and 1960's, Erikson proposed that identity development occurred during adolescence, and many researchers agreed with and found evidence for identity development occurring in adolescence (Fitch & Adams, 1983; Kroger, 1988; Marcia,

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1980; Orlofsky, Marcia, & Lesser, 1973). More recently, however, researchers are

finding that the identity development process has extended into young adulthood (Arnett,

2000, 2011; Douglass, 2007; Luyckx, Duriez, Klimstra, & de Witte, 2010; Marcia, 2002).

Apparently, substantial changes in Western culture have led to a delay of identity

development and firmly committing to an identity. Arnett (2011) summarized the

changes in many cultures that have led to adolescents and young adults extending the

identity development process well into their twenties. The societal trends of men and

women getting married at a later age, more individuals attending college and vocational

training, and more women working outside the home seems to have initiated a prolonged

amount of time that adolescents and young adults take to develop their identity (Arnett,

2011). Often, young adults describe themselves being in an in-between state, where they

are not adolescents but do not feel like they are adults (Arnett, 2000). Because of the on-

going identity development into the mid-twenties, Arnett (2000) created the term

"Emerging Adults" for this population of 18-25 year olds.

Many contemporary researchers focus their investigation of identity development

on the Emerging Adult population because of the variety of identity statuses and the

desire to better investigate the identity development process. Researchers investigating

Eriksonian identity development, especially researchers who use James Marcia's identity

statuses based off of Erikson's identity versus role confusion stage (Crocetti, Scrignaro,

Sica, & Magrin, 2012; Luyckx et al., 2010; Luyckx, Goossens, Soenens, Beyers, &

Vansteenkiste, 2005), also have found that identity development consistently extends

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into the twenties for a large number of individuals. These researchers have shed new light on the important work of James Marcia and his extension of Erikson's work.

Marcia's Identity Statuses

James Marcia continued to investigate and develop Erikson's ideas on identity development by understanding possible orientations that individuals can have. Marcia expanded Erikson's concepts of identity exploration and identity commitment in creating an ego identity. Marcia (1964, 1966) proposed four identity statuses that individuals can be in related to the conflict in the fifth psychosocial development stage of identity versus role confusion. Marcia's conceptualization of identity development through the four identity statuses has become one of the largest contributions to identity research and theory (Kroger, 2007; Schwartz et al., 2011a).

Identity Status

When he was a doctoral student, James Marcia was interested in Erikson's writings on psychosocial development and sought to expand upon the identity versus role confusion stage. Marcia saw that the crux of the identity versus role confusion conflict from Erikson's perspective is a commitment and a confusion of identity that determines if an individual successfully resolves this stage with an identity or unsuccessfully resolves the stage with role confusion (Erikson, 1956, 1963, 1968; Marcia, 1966).

Marcia envisioned that there are different orientations to identity, which he called identity statuses, based on if an individual has committed to an identity and if an individual has explored her or his identity or had an identity crisis. Marcia expanded Eriksonian identity development by proposing this idea and suggesting four identity

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statuses centered around whether an individual has committed to an identity and whether an individual has explored his or her identity. Marcia labeled these identity statuses as identity diffusion (no exploration of or commitment to identity), identity foreclosure (committed to an identity without exploring identity), identity moratorium (in an active state of identity exploration or crisis without a sense of identity), and identity achievement (had an identity exploration or crisis and has committed to an identity) (Marcia, 1966).

Marcia called these identity "statuses" for a reason: the statuses are glimpses of the changing structure of self that can evolve over time (Marcia, 1980). An individual can have explored and committed to an identity (identity achievement) and then have a crisis (i.e. death of significant other, loss of a job, recently receiving very negative social feedback) that leads the individual into an identity crisis and a lost identity (identity moratorium). Therefore, the identity status is a snapshot in time of the individual's current sense of identity.

While there is a general identity status, Marcia originally broke down identity statuses into three domains of occupational choice, religion, and political identity (Marcia, 1966) and later expanded to ideological (occupation, politics, religion, and philosophical lifestyle) and interpersonal (friendship, dating, sex roles, and recreational) domains (Grotevant et al., 1982). An individual's identity status can be different in the various domains based on how much time and thought that the individual has given to exploring and the commitment to her or his identity. Also, some researchers have investigated if there are identity domains that are more salient to people based on age and

biological sex (Kroger, 1988; Thoits, 1992), which has typically shown that there are not statistically significant differences between females and males and that some change in domain salience occurs over time.

Ways of Measuring Identity Status

Marcia (1964) created the first way of measuring identity statuses through the Identity Status Interview (ISI). Marcia created the ISI to be able to measure a construct that indirectly can provide information about an individual's ego identity based from Erikson's fifth psychosocial stage of identity versus role confusion (Erikson, 1968; Marcia, 1964). While there were four studies that used different methods to assess the identity versus role confusion stage, Marcia (1966) noted that there were flaws in the construct validity of the instruments as he evaluated them lacking in capturing the psychosocial aspect of identity. Therefore, Marcia created an interview to capture the psychological and social aspects of identity that can be reliably coded into the four identity statuses. The interview takes 30-45 minutes and has been used in numerous studies since it was developed almost 50 years ago (Grotevant et al., 1982; Rogow, Marcia, & Slugoski, 1983). From the beginning, there were promising results from the ISI to further our understanding of the identity statuses and overall identity development. Researchers using the ISI overwhelmingly found support for the identity statuses as proposed by Marcia (Bilsker, Schiedel, & Marcia, 1988, Danielsen, Lorem, & Kroger, 1995, 2000; Marcia & Friedman, 1970), and many researchers felt a need to find out the impact of identity statuses on psychological distress and overall wellness. Because of the time needed to conduct individual interviews, other measures were created to more

quickly measure the identity statuses (Arseth et al., 2009b; Bergh & Erling, 2005; Luyckx et al., 2005).

Accordingly, several pencil-and-paper measures of Marcia's identity statuses were created. The most often utilized measure of identity statuses has become the Extended Objective Measure of Ego Identity Status (EOMEIS-II; Bennion and Adams, 1986). The Ego Identity Process Questionnaire (EIPQ; (Balistreri & Busch-Rossnagel, 1995) and the Dellas Identity Status Inventory-Occupation (DISI-O; Dellas & Jernigan, 1981) are two other examples of assessments created to measure identity status, although the EOMEIS-II is more widely utilized. The EOMEIS-II measures each of the eight identity status domains and provides an identity status score for the ideological and interpersonal domains as well as a total score that is composite of both domains (Adams, Shea, & Fitch, 1979). The EOMEIS-II often is preferable in large research studies as the EOMEIS-II has 64 Likert-type items that can be administered in group settings along with other measures to investigate the relationships between identity status and other constructs of interest.

Having committed to and explored one's identity should theoretically lead to greater wellness, overall development, and lower psychological distress according to Erikson's psychosocial theory (Erikson, 1968). Because of the impact of wellness and psychological distress on the lives of mental health clients, researchers have examined if Erikson's hypotheses regarding identity and wellness hold true.

Identity Status and Wellness

Based on Erikson's psychosocial theory, an individual who successfully resolves the identity versus role confusion stage should have significantly overall wellness than someone who has not successfully resolved this developmental stage (Erikson, 1968). This has clear importance for mental health professionals, and several researchers have investigated if there is a link between committing to an identity and greater wellness. Meeus et al. (1999), Hofer et al. (2007), Waterman (2007), Schwartz (2007), Schwartz et al. (2011a), and Hofer, Busch, and Kartner (2011) all have empirically examined this connection between identity status and wellness and found significant positive relationships between identity and wellness.

Meeus et al. (1999) conducted both a meta-analysis and a longitudinal study investigating the pattern or change in identity status over time in adolescents as well as the connection between identity status and psychological well-being. Based on the meta-analysis, they found that there is change over time in the percentages of individuals in the different identity statuses based on age and that there is less psychological distress for individuals with more developed identities. In the longitudinal portion of their study, Meeus et al. (1999) found that as adolescents get older there tends to be less psychological distress among individuals who commit to their identities. While Meeus et al. (1999) said that they were investigating the relationship between identity status and well-being, they were actually investigating the relationship between identity status and negative wellness, which had an inverse relationship. This study, like the ones before, unfortunately measured wellness as the absence of negative psychological symptoms. In

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2007, researchers began to investigate the relationship between identity status and wellness (as opposed to the absence of illness).

Hofer et al., (2007) were among the first researchers to explicitly investigate this relationship, and they chose to also challenge the notion that identity formation would be the same in different cultures. Accordingly, Hofer et al. (2007) recruited participants in a very individualistic culture (Germany) and in a very collectivistic culture (Cameroon) to see if there was a connection between wellness and identity status in both samples and to see if there were any group differences. They hypothesized that foreclosure for participants from a collectivistic culture would not be as strongly associated with lowered wellness. They used two of the four identity statuses in their study, the two with a commitment to an identity (i.e., [list two specific statuses used]), to see if there is a relationship between these statuses and wellness. In their analysis, they found that there were significant correlations between the identity achievement status and wellness (.23 with life satisfaction, .20 with positive affect, and -.22 with negative affect in Cameroon, and .38 with life satisfaction, .27 with positive affect, and -.26 with negative affect in Germany), that there was only one significant correlations with identity foreclosed and wellness (-.18 with positive affect in Germany), and that there were few if any significant differences in the relationship between identity status and wellness in the two different locations, showing that this relationship was important in both collectivistic and individualistic cultures. This study had two important findings, that identity status and wellness are significantly correlated and that the identity statuses are important considerations in not only individualistic cultures but also collectivistic cultures.

Similarly, Waterman (2007) investigated the same question of whether there is a significant relationship between identity status and wellness. Waterman (2007) recruited participants from a different continent (North America) than in the Hofer et al. (2007) study, but found similar results. Waterman (2007) measured three types of wellness (Subjective Well-Being, Psychological Well-Being, and Eudaimonic Well-Being) to investigate their relationship with each of the four identity statuses. There were multiple subscale measures of each of type of wellness, including Subjective Well-Being (optimism and hedonic enjoyment), Psychological Well-Being (composite, autonomy, environmental mastery, personal growth, positive relationships, purpose, and self-acceptance), and Eudaimonic Well-Being (personal expressiveness and self-realization values). Each of the identity statuses were correlated with these wellness variables, and the majority of the correlations were found to be significant. For participants who were categorized in identity achievement by the EOMEIS-II, every wellness construct was significantly positively correlated with IA. For participants who were categorized in identity diffusion (ID), every wellness construct was significantly negatively correlated with ID. For participants who were categorized in identity moratorium (IM) or identity foreclosure (IF), only psychological wellness constructs were significantly correlated with IM or IF, and each significant correlation was negative. Similar to Hofer et al. (2007), Waterman (2007) found that IA was significantly positively correlated with every wellness measure, although Waterman also found that ID was significantly negatively correlated with every wellness measure and that IM and IF were significantly negatively correlated with most of the psychological wellness measures and non-significantly

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correlated with the other wellness measures. This last finding may be an artifact of sampling as the sample (n = 217) was drawn from college students in a psychology class from a single university. Further, almost all of the sample (90%) was non-Hispanic White.

Waterman (2007) also investigated whether wellness predicts the different identity statuses and found that there were no wellness measures that could strongly predict which identity status an individual is likely to be in, although there were significant predictors of each identity status when taking the identity statuses individually. Since this study was cross-sectional, it is unclear why Waterman chose to investigate the extent to which wellness predicts identity status rather than the other way around, as is more common in the literature.

Schwartz (2007) examined whether there is an overall identity consolidation model that can connect and be used to conceptualize identity status, identity synthesis, and identity capital. In studying this model, Schwartz (2007) measured IA using the EOMEIS-II as well as positive (self-esteem, purpose in life, internal locus of control, and ego strength) and negative (depression, anxiety, impulsivity, and tolerance for deviance) psychological functioning. In this study, he found that IA was significantly positively correlated with other measures of identity and with all of the positive psychological functioning constructs. While this was not a major focus of Schwartz's (2007) study, he reported the significant relationship between IA and wellness, which was consistent with the other two studies also published that year.

In a large study completed by several researchers in North America at 30 universities, Schwartz et al. (2011a) researched the importance of identity status for emerging adults by measuring the correlations of a six identity status model as proposed by Luyckx et al. (2008) with identity synthesis and confusion, positive (self-esteem, internal locus of control, search for meaning in life, presence of meaning in life, life satisfaction, psychological well-being, and eudaimonic well-being) and negative (depression, general anxiety, social anxiety, rule-breaking, social aggression, and physical aggression) psychological functioning, and health-compromising behaviors (illicit drug use, unsafe sexual behaviors, and impaired driving). Schwartz et al. (2011a) found significant differences between the identity statuses for all of the variables for positive and negative psychological functioning and all but two of the subcomponents of unsafe sexual behaviors on the health compromising behaviors. For the positive psychological functioning constructs of self-esteem, presence of meaning in life, satisfaction in life, psychological well-being, and eudaimonic well-being, IA had the highest correlations and IF had the second highest correlations with these constructs in this sample of 9,034 emerging adults. For all of the negative psychological functioning constructs, IF had the lowest correlations and IA had the second lowest correlations with the negative psychological functioning constructs. Overall, Schwartz et al. (2011a) found that those individuals who have committed to an identity have greater positive psychological functioning scores and lower negative psychological functioning scores.

Hofer et al. (2011) investigated whether the relationship between self-regulation and self-esteem and well-being was mediated by identity status, and whether the

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relationship between identity status and self-esteem and well-being was moderated by explicit motives. In essence, they wanted to test the theoretical assumptions that identity status leads to greater wellness with the influence of explicit motives significantly impacting the relationship between identity status and wellness as well as identity status mediating the relationship between self-regulation and greater wellness. As in their previous study Hofer et al. (2007), Hofer et al. (2011) only used the IA identity status questions from the EOMEIS-II and found significant positive correlations between IA and well-being (.31). Further, Hofer et al. (2011) found that both higher IA and higher explicit motives led to higher self-esteem and well-being scores. This study also supported the relationship and significant connection between identity status and wellness.

While these studies are very explicit in the connection between identity status and wellness, other researchers also have examined identity status and wellness and found similar results (Klimstra, Luyckx, Goossens, Teppers, & de Fruyt, 2012; Luyckx et al., 2008; Schwartz, Zamboanga, Weisskirch, & Rodriguez, 2009a; Zimmer-Gembeck & Petherick, 2006). From these collective findings, it seems clear that IA is related to higher levels of wellness, and it may be that IF is related to higher levels of wellness as well. Further research is needed to better understand the relationship of the IF identity status with wellness. It seems clear from the research to date, however, that people with ID and IM statuses tend to experience lower levels of wellness than those with IA and IF statuses.

Identity Status and Absence of Psychological Distress

Researchers also have focused on the relationship between identity status and symptoms of psychological distress, including anxiety and depression. This relationship has been thoroughly studied, and there is significant evidence that shows that committing to an identity leads to lower levels of psychological distress.

A meta-analysis of 12 studies conducted by Meeus et al. (1999) found that there are two possible "endpoints" of the identity statuses in IA and IF in adolescence and that people with those two identity statuses tend to have lower levels of psychological distress. In the same article, Meeus et al. (1999) also completed a longitudinal study that found that as adolescents got older and moved into more committed identities, their psychological distress decreased.

In a similar vein, Phinney (1989) studied ethnic identity status and how that correlated with psychological functioning for 91 ethnic minority students in tenth grade who were born in the United States. For the study, the ID and IF statuses were collapsed into one identity status to allow the identity statuses to parallel models of ethnic identity development. Therefore, stage one of ethnic identity development matched the ID/IF identity statuses, stage two matched IM, and stage three matched IA. Phinney (1989) found that IA had the highest level of psychological functioning. Phinney also found that there was a relationship between ethnic identity and identity status, although she cautioned against interpreting those results without further support.

Schwartz, Zamboanga, Weisskirch, and Wang (2009b) also investigated ethnic identity, identity status, and psychological functioning for 773 students at five different

universities in the United States. In this study, the researchers worked to create a

mediation model for American Cultural Identity and Heritage Cultural Identity through

Personal Identity Consolidation into Adaptive Psychosocial Functioning, Internalizing

Symptoms, and Proclivity toward Externalizing Symptoms. They used a combination of

the EOMEIS-II and Ego Identity Status Questionnaire (EISQ; Balistreri, Busch-

Rossnagel, & Geisinger, 1995) for identity status and the EOMEIS-II, EISQ, Erikson

Psychosocial Stage Inventory, and Ego Identity Scale to measure identity status and

identity consolidation. They found strong correlations between identity status and

adaptive psychosocial functioning and personal identity consolidation with adaptive

psychosocial functioning (.76), internalizing symptoms (-.55), and proclivity toward

externalizing symptoms (-.51), which was higher than any of the combinations between

American Cultural Identity and Heritage Cultural Identity with adaptive psychosocial

functioning, internalizing symptoms, or proclivity toward externalizing symptoms.

     In a similar study, Schwartz et al. (2009a) looked at how personal and ethnic

identity are related to adaptive (self-esteem, purpose in life, internal locus of control, and

ego strength) and maladaptive (depression, anxiety, impulsivity, and tolerance for

deviance) psychological functioning for White, Black, and Hispanic participants (n =

905). In this study, they used two of the identity statuses (ID and IM) as measured by the

EOMEIS-II. Schwartz et al. (2009a) found that both ID and IM were significantly

negatively correlated with adaptive psychological functioning and significantly positively

correlated with maladaptive psychological functioning.

Similarly, Schwartz et al. (2011a) found that participants with an IF status had the lowest psychological symptoms and those with IA status had the second lowest. This provides further evidence that there are significant differences in the level of psychological distress between the different identity statuses. The Schwartz et al. study is noteworthy because it included a robust sample ($n = 9,034$) emerging adults.

While there are some differences from study to study on identity statuses and psychological distress, it is fairly clear that those with IA and IF statuses tend to have the lowest level of psychological distress and those with ID and IM status tend to have the highest levels. The research in this area appears to demonstrate that individuals who commit to an identity, whether or not they have undergone an exploration of their identity, have lower levels of psychological distress than individuals who have not committed to an identity. This finding is consistent across age ranges, but it is especially so as individuals move into emerging adulthood (Meeus et al., 1999; Schwartz et al., 2011a).

Identity Status and Biological Sex

Another important consideration is differences between men and women on identity statuses. While this is a criterion that is not included in every study on identity status, some researchers have found differences in the percentages of women and men in each of the four identity statuses, although these findings are mixed.

Several researchers have found differences between men and women in regard to identity status. Meeus et al. (1999) investigated several research questions as a part of an effort to create a model understanding identity status change over time and included

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several variables, including biological sex. To complete their investigation, Meeus et al. (1999) completed a meta-analysis as well as a new longitudinal research study. In building the argument for their two studies, Meeus et al. (1999) cited three studies in which the researchers had found significant differences in identity status based on biological sex (Archer, 1985; Craig-Bray, Adams, & Dobson, 1988; Grotevant et al., 1982) that were not included in Kroger's (1997) meta-analysis on biological sex and identity status. Contrary to his hypotheses, though, Meeus et al. (1999) found no significant differences in identity status based on biological sex in the meta-analysis. In the same article, however, Meeus et al. (1999) added biological sex into a proposed model of identity status examined using a longitudinal design. In the longitudinal study, Meeus et al. (1999) found what they hypothesized, namely that adolescent females were more likely to hold an IA status and less likely to be in ID status than adolescent males.

Craig-Bray et al. (1988) investigated identity status, intimacy, and biological sex in same-sex and cross-sex interaction contexts. While Craig-Bray et al. (1988) did not find significant differences overall between men and women, there were significant differences in identity status and intimacy based on biological sex in same-sex contexts. Similarly, Grotevant et al. (1982) expanded Marcia's (1964, 1966) Identity Status Interview to include interpersonal domains because of differences in biological sex on identity status.

Others have considered the possibility of an interaction effect between identity status and biological sex on various dependent variables. For example, Cramer (2000) examined if there was an interaction effect between biological sex and identity status on

personality measures of ego resiliency, self-monitoring, self-esteem, openness to experience, anxiety, and depression. Cramer found a significant gender and identity status interaction effect [$F(3,594)= 7.54$, $p<.001$] on the personality measures. She also examined whether biological sex had any main effects on identity status. She hypothesized that there would be no sex differences and, indeed, found no statistically significant differences between women and men based on their ideological [$\chi^2 (3)= 6.48$, $p=.09$] or interpersonal [$\chi^2 (3)= 4.11$, $p=.25$] identity statuses Cramer went further, though, by examining differences between men and women on Marcia's four identity statuses. Women scored higher than men on the IM status, and men scored higher than women on the ID and IF statuses. Cramer (2000) highlighted that even though men and women may have the same identity status, it is possible that there can be differences in what that means for the individual and in how the individual makes sense of the various aspects of her or his identity.

Kroger (1997) approached this issue by completing a meta-analysis to investigate differences in identity status between the biological sexes. Kroger included only studies ($n = 56$) that included information on biological sex. Nine studies reported significant differences in regard to the percentages for men and women in their distribution into each of the identity statuses. In these studies, men scored more frequently in ID in three studies, women more frequently in ID in one study, women more frequently in IF in one study, men more frequently in IF in one study, women more frequently in IA in one study, men more frequently in IA in one study, women more frequently in IM in two studies, and "unequal distributions" were reported for two studies (Kroger, 1997). The

results from these studies are very mixed, with no clear differences based on biological

sex emerging from the data. Kroger (1997) also reported that there were sixteen studies

that provided information on identity development over time, and six of these studies

reported significant differences. In these studies, there was a trend that adolescent males

were more likely to commit to an identity status than were adolescent females, especially

as the age of the participants increased. In this meta-analysis, Kroger (1997) did

acknowledge that there could be an interaction effect between biological sex and identity

status that was not picked up in this study due to limitations of the meta-analysis.

Kroger (1997) also provided findings from an experimental study that she

conducted that investigated differences of identity status based on biological sex for 100

New Zealanders aged 40-63 years. In her analysis, she found no main effect for

biological sex on identity status. While the meta-analyses of Meeus et al. (1999) and

Kroger (1997) did not find statistically significant differences between men and women's

identity statuses, the experimental findings by Meeus et al. (1999), Archer (1985), Craig-

Bray et al. (1988), Cramer (2000), and Kroger (1997) all suggest that there are significant

differences in identity status based on biological sex.

A number of researchers have found differences in identity statuses based on

biological sex. For example, Bergh and Erling (2005) found that adolescent females

scored higher on IM than adolescent males and that adolescent males scored higher on ID

than adolescent females (χ^2 (5; n = 212)= 17.91, p<.01). Similarly, Frisen and Wangqvist

(2011) investigated biological sex and identity status in 136 emerging adults in Sweden.

They found significant differences [χ^2 (3)= 27.52, p<.001] in global identity status based

on biological sex in that women scored significantly higher than men on IA and men scored significantly higher than women on ID. Frisen and Wangqvist (2011) stated that this might be due to Swedish cultural differences and that this finding is consistent with other studies (Bergh & Erling, 2005; Lewis, 2003; Pastorino, 1997). A consistent finding between these two studies is that men scored higher than women on ID.

In summary, then, researchers have found mixed results regarding the effect of biological sex on identity status. Some researchers have found significant differences in identity status based on biological sex (Archer, 1985; Bergh & Erling, 2005; Craig-Bray et al., 1988; Cramer, 2000; Frisen & Wangqvist, 2011; Grotevant et al., 1982; Lewis, 2003; Meeus et al., 1999; Pastorino et al., 1997). Other researchers, however, have not found significant differences in identity status based on biological sex (Alisat & Pratt, 2012; Cramer, 2000; Hofer et al., 2007; Kroger, 1997). In the majority of studies, however, researchers report biological sex of participants as descriptive data and do not include sex in the analyses on (Hofer et al., 2011; Schwartz, 2007; Schwartz et al. 2009a; Schwartz et al., 2009b; Schwartz et al., 2011a). Because of these mixed findings, it is unclear if there is any impact of biological sex on identity status.

Predictors of Identity Status

From the recent research on identity status, there have been three main foci in the research: a) researchers investigating if there are four identity statuses or a different number of identity statuses (Luyckx et al., 2005; Schwartz et al., 2011a), b) what is the developmental trajectory, pattern, or pathway through which the identity statuses are progressed (Bosma & Kunnen, 2001; Kroger et al., 2010; Meeus, 2011; Meeus et al.,

1999; Meeus, Van De Schoot, Keijsers, Schwartz, & Branje, 2010; Stephen, Fraser, & Marcia, 1992) including using a narrative approach to investigate identity development (McAdams, 1988; McLean & Pasupathi, 2012; Reese, Jack, & White, 2010), and c) what are the predictors or precursors of identity status (Ford et al., 2008; Kennedy, 1999; Jenkins et al., 2005; Johnson et al., 2003). While the first two foci are not relevant to this study, the latter focus is of primary importance for this study.

Identity status consistently has been shown to have significant correlations with greater wellness (Hofer et al., 2007; Hofer et al., 2011; Klimstra, Luyckx, Goossens, Teppers, & de Fruyt, 2012; Luyckx et al., 2008; Meeus et al., 1999; Schwartz et al., 2009a; Schwartz et al., 2011a; Waterman, 2007; Zimmer-Gembeck & Petherick, 2006) and less psychological distress (Meeus et al., 1999; Phinney, 1989; Schwartz et al., 2009a; Schwartz et al., 2009b; Schwartz et al., 2011a). While we know that committing to an identity leads to these desirable outcomes, it is unclear what leads to committing to an identity (Kroger et al., 2010). Only recently have researchers begun to investigate what predicts identity status, and continued studies are needed to better understand which factors are involved and the degree to which they impact identity status (Ford et al., 2008; Jenkins et al., 2005; Johnson et al., 2003; Kennedy, 1999). Researchers have found support for both attachment (Arseth et al., 2009b; Berman et al., 2006; Kennedy, 1999; MacKinnon & Marcia, 2002) and differentiation of self (Ford et al., 2008; Jenkins et al., 2005; Johnson et al., 2003) as predictors of identity status, but these have only been examined independent of one another. Accordingly, one place of further examination is to investigate both of these predictors at the same time.

Attachment Theory

John Bowlby and Mary Ainsworth

John Bowlby and Mary Ainsworth were the founders of Attachment Theory (Bretherton, 1992). While attachment theory has grown over the years with the hundreds of research studies on attachment, Bowlby and Ainsworth theorized the main points of Attachment Theory and began studying the impact that attachment has on development (Bretherton, 1992; Mercer, 2011; Schore & Schore, 2008). Bowlby (1973) was the initial attachment researcher, and Ainsworth et al. (1978) refined some of Bowlby's ideas and added the attachment styles (Ainsworth, 1989; Ainsworth et al.,1978).

Bowlby (1957; 1973; 1982; 1988) initially proposed attachment theory based on observing parents and children interact with each other. Bowlby noticed significant developmental issues that were based on the way that the parents and children interacted. The children who formed a deep bond with their caregivers were able to have more positive outcomes in reduced anxiety and the ability to explore the world (Bowlby 1982, 1988). Bowlby (1973) named this connection as "attachment" and investigated mother-infant connections and interactions. He noticed that the presence or absence of a key attachment figure was an important factor in the infants' ability to cope and to deal with anxiety. Bowlby completed his own studies and learned from Henry Harlow's (Harlow & Harlow, 1965; Harlow & Zimmerman, 1959) studies of mother-infant interactions in rhesus monkeys (Bowlby, 1982). Bowlby proposed a new model of thinking about human motivation and development by investigating the interpersonal connections, specifically with caregivers, that led to healthy development or developmental problems

such as anxiety, emotional detachment, and depression (Bowlby, 1973; 1982). Bowlby focused on specific attachment-related behaviors and the perceived proximity to the caregiver or attachment figure.

Attachment behaviors are "any form of behavior that results in a person attaining or maintaining proximity to some other clearly identified individual who is conceived as better able to cope with the world" (Bowlby, 1982, p. 668). Bowlby goes on to say that "knowledge that an attachment figure is available and responsive provides a strong and pervasive sense of security … it can be observed throughout the life cycle, especially in emergencies" (1982, p. 669) and attachment "is regarded as an integral part of human nature" (1982, p. 669). Bowlby framed attachment as an important and fundamental part of human nature that provides a sense of safety and trust, especially in times of crisis and anxiety, that is important for survival (Bowlby, 1982). Therefore, Bowlby (1982) asserted that using attachment behaviors and being able to connect with attachment figures is important to reduce anxiety and build autonomy starting as a child and continuing on throughout the rest of life.

Mary Ainsworth agreed with Bowlby's conceptualization of attachment and provided important research that led to the classification of attachment behaviors into attachment styles. In the 1950's, Ainsworth started studying mother-infant interactions in Africa and provided research that shows some of the universality of attachment concerns that transcend location and culture (Ainsworth, 1962; 1963; 1967; 1969). She also created a research experiment procedure called the "strange situation" that has subsequently been used in many studies. In the strange situation, researchers put children

(often around one year old) in a room with their mother, allowed the child to explore the room, introduced an unfamiliar adult into the room who conversed with the mother and then approached the child, allowed the mother to leave the room so that the child and the other adult where alone, and reintroduced the mother to reassure the child (Ainsworth et al., 1978). Ainsworth and Wittig (1969) first completed this experiment, which was subsequently replicated many times (Ainsworth et al., 1978).

Ainsworth described the different attachment behaviors that the children would react in the strange situation and proposed that there are specific ways that children can react (Ainsworth et al., 1978). These different styles of reacting are called "attachment styles" and are based on attachment-related behaviors. Ainsworth initially offered three main attachment styles: secure, anxious/ambivalent, and anxious/avoidant attachment styles, with the latter two styles commonly referred to collectively as insecure attachment (Ainsworth et al., 1978; Sroufe, 1979). Differences in secure and insecure attachment have been found repeatedly, and it is clear that having a secure attachment style is important for higher levels of wellbeing (Cower, 1994; Izard, 2002).

Ainsworth (1967) and Bowlby (1982) focused on early human development, and they based attachment theory on the relationship between children and attachment figures. Hazan and Shaver (1987) were the first scholars to extend Ainsworth's and Bowlby's ideas on attachment beyond childhood and into adulthood. Hazan and Shaver (1987) hypothesized that the bond between children and their caregivers is similar to the bond between romantic lovers and extended attachment theory to include adult-adult relationships. Hazan and Shaver found that the processes between child and adult that

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Ainsworth (1962; 1963; 1967; 1969) found in the strange situation were found to be

similar to the bonds between romantic partners (Brennan & Shaver, 1995; Collins &

Reed, 1990; Fraley & Shaver, 1997; 2000; Hazan & Shaver, 1987; 1994). Thus,

attachment theory included the patterns of attachment and the associated behaviors

between child-adult and adult-adult relationships by the end of the 20th century.

Attachment Styles

In attachment theory, how a person seeks support and comfort during times of

stress is known as her or his attachment style (Arseth et al., 2009b). Bowlby and

Ainsworth conceptualized three attachment styles of secure, anxious/ambivalent,

anxious/avoidant. Secure attachment is characterized by having had positive interactions

with attachment figure(s) that have led to an individual being able to feel comfortable

depending on others and to relatively easily get close with others. Such a secure

attachment is thought to occur when the individual experiences positive interactions with

the attachment figure where the attachment figure is perceived to be available and in tune

with the individual. Anxious/ambivalent attachment is characterized by an individual

desiring close relationships and being nervous that others will not feel this way because

of her or his perception that the attachment figure was not always available.

Anxious/ambivalent attachment style is thought to result when the individual feels in tune

with the attachment figure but the attachment figure is not perceived to be as available to

the individual as she or he wishes. Anxious avoidant attachment is characterized by an

individual feeling uncomfortable being close with others and not desiring closeness with

others. This attachment style is thought to evolve when the individual does not feel

attuned with the attachment figure or that the attachment figure was available to him or her (Arseth et al., 2009b).

Attachment styles are sometimes called attachment strategies because they describe the approach that an individual uses to interact with others. Researchers (Bartholomew & Horowitz, 1991; MacKinnon & Marcia, 2002) have started to conceptualize attachment in terms of the levels of anxiety and avoidance (low to high) instead of by the three attachment styles proposed by Bowlby and Ainsworth. In doing so, another attachment strategy was added to the original three because of continued research that led the conceptualization away from the original attachment styles to more of a continuum of anxiety and avoidance.

The attachment styles or strategies were reorganized and renamed into secure, dismissive, preoccupied, and fearful attachment categories (Berman et al., 2006). People with *secure* attachment tend to find it easier to seek and become close with others, and to solicit help from others in times of distress; they experience low levels of both attachment anxiety and avoidance. This was basically unchanged from the previous secure attachment style. People with *dismissive* attachment strategies tend to shun intimate connections as they find it uncomfortable to be with others, particularly when stressed. People with dismissive attachment strategies have a low level of attachment anxiety and a high level of attachment avoidance, which is basically the same as what was previously called anxious/avoidant attachment style. People with *preoccupied* attachment strategies feel a desire to be close with and separated from others when stressed, but they are concerned about being rejected or unloved. Preoccupied attachment strategies are

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characterized by experiencing a high level of attachment anxiety and a low level of attachment avoidance, which is the reorganized version of anxious/ambivalent attachment style. Finally, people with *fearful* attachment strategies want to be close to others and are scared that they will get hurt if they do get close to others. People with fearful attachment experience high levels of both attachment anxiety and avoidance (Arseth et al., 2009b; Berman et al., 2006). This is the added attachment strategy that was not included in the initial conceptualizations of attachment styles. This new conceptualization of attachment is based on a continuum of anxiety and avoidance.

While this is an important change in attachment theory, over the years with additional research there have been other changes that have led to an overall expansion of what attachment theory says and how it can be used. Modern Attachment Theory has been used to understand socioemotional processes, interpersonal interactions, the ability to cope with anxiety, and as a basis to understand personality and identity development (Ainsworth et al., 1978, Arseth et al., 2009b; Bowlby, 1973; 1982; 1988; Coan, 2010; Mercer, 2011; Schore & Schore, 2008, Sroufe, 1979).

Modern Attachment Theory

There have been many researchers investigating attachment research for a number of years, and attachment theory has expanded to include more information as new research has continued to emerge. Many researchers have investigated tenets of attachment theory as proposed by Bowlby and Ainsworth (for review, see Mercer, 2011), although other researchers have connected attachment theory to continued

socioemotional, psychobiological, neurological, cognitive development, and regulatory research (Croan, 2010; Mercer, 2011; Schore & Schore, 2008).

In the over 50 years since attachment theory was first proposed, research in biological, neurological, and affect regulation has vastly expanded. Because of the fundamental connections between attachment theory and affect regulation, neurology, and physiology, researchers have investigated whether the theoretical posits of attachment theory hold true in those related areas. Recent attachment literature has expanded to examine, verify, and challenge specific aspects of attachment theory.

Mercer (2011) discussed eleven tenets of attachment theory and provided more recent research that supports or does not support attachment theory as theorized by Bowlby and Ainsworth. Mercer (2011) found that there are three tenets (attachment is characterized as an affective bond that motivates individuals, attachment is a strong process and requires an attachment figure that can be a caregiver or another important person, and from 6 to 36 or 48 months, a child will experience distress when separated from the attachment figure and protest this separation) that have not been critiqued and have been generally accepted, three other tenets that have been more supported than not supported by research (the quality of caregiving impacts the attachment bond, early attachment experiences are important for later social behavior, and attachment leads to internal work models of social relationships). Mercer (2001) found that the other five tenets of attachment theory have either been found to be not supported more than supported by research (attachment is an innate and evolutionary process and negative attachment interactions directly lead to psychological symptoms of psychopathology) or

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have been reinterpreted (there is a limited period of 6 to 36 or 48 months that attachment operates in, attachment is limited to one attachment figure, and attachment behaviors are a part of the same attachment control system). Overall, it has been supported that attachment theory is important for cognitive, emotional, and relational development. Croan (2010) provided evidence of how the emotional and relational models are utilized as an adult and described how attachment theory has been extended into an understanding of adult attachment. Studies on cortisol levels also have provided biophysiological evidence for attachment theory in that connection with others increases cortisol levels, an important hormone in the biochemical stress response (Gunnar, Broderson, Nachimas, Buss, & Rigatuso, 1996; Izard, 2002). Mercer (2011) also provided a review of Schore and Schore's (2008) biopsychological discussion of attachment theory as important in the understanding of neurological functioning and development.

Schore and Schore (2008) presented a description of how attachment theory is intricately involved in affect regulation, developing an emotional sense of self, and left and right brain processes. They provided support for Bowlby's and Ainsworth's attachment theory as a description of the emotional regulation system for a child. They stated that the "fundamental role of nonconscious attachment dynamics is therefore interactive psychobiological regulation. … and nonconscious implicit interactive regulation is the central strategy that underlies all essential survival functions of the human self system" (Schore & Schore, 2008, p. 11). Where Bowlby and Ainsworth wrote about the attachment figure being able to soothe the child as important for reducing anxiety and being able to know that the child can cope with difficulties, Schore and

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Schore (2008) describe in detail what happens at the internal psychobiological level for the child. The attachment figure's interaction provides emotional regulation for the child by helping to regulate the central and autonomic nervous systems. These interactions also help to stimulate brain development and maintenance through creating regulatory functional circuits in the right brain over time (Schore & Schore, 2008). In essence, the attachment figure's interactions with the child help teach the child to be able to self-regulate emotions through emotional pathways that develop sustained changes in the brain that the child can use throughout life to manage stressful situations. Other researchers (Ovtscharoff & Braun, 2001; Pipp & Harmon, 1987; Sullivan & Gratton, 2002) have provided support for these findings. Schore and Schore (2008) said that these attachment interactions also give rise to a sense of self for the child. This ties attachment with Erikson's psychosocial model of development, specifically where Erikson says that trust or mistrust is developed in the earliest stage of development based off of our interactions with our primary caregivers.

Attachment Style and Identity Status

This connection in Attachment Theory and Eriksonian psychosocial development has led researchers to examine the relationship between attachment style and identity status. Attachment can be seen as a precursor to identity and therefore also as a precursor to identity status. The relationship with attachment figures appears to build a sense of self at an early age (Schore & Schore, 2008), which Bowlby (1973) called an internal working model of self. Attachment styles have been shown to have a profound impact on an individual, and having different attachment styles have been proposed to lead to

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different identity statuses. As Schore and Schore (2008) described, obtaining a secure

attachment is likely to lead to *exploration* (Arseth et al., 2009b) because someone with

secure attachment has established a secure base from which she or he can explore oneself

and the world. Engaging in identity exploration, therefore, leads the individual into one

of two identity statuses (IM or IA) and away from the other identity statuses (ID or IF).

Exploring one's identity has been shown to lead to having higher anxiety (Schwartz et al.,

2009a; Schwartz et al., 2011a), which can lead to difficulty in reaching the IA status.

Securely attached individuals are able to feel secure when stressed or fearful because of

having developed affective regulation strategies and neurological pathways (Schore &

Schore, 2008). Therefore, individuals with secure attachment are theoretically more

likely to explore their identity, handle the anxiety associated with identity exploration,

and commit to an identity after engaging in identity exploration. Therefore, there is a

strong conceptual framework that connects attachment theory with Marcia's identity

statuses.

Based on this conceptual connection, researchers have begun to investigate the

relationship between attachment style and identity status. The researchers have generally

found mild to moderate correlations between the two constructs (Arseth et al., 2009b;

Berman et al., 2006; Kennedy, 1999; MacKinnon & Marcia, 2002). Arseth et al. (2009b)

completed a meta-analysis on the research studies on identity status and attachment.

They hypothesized that there would be positive correlations between IA and IM with

secure attachment, negative correlations between ID and IF with secure attachment, and

the IA and IM identity statuses would have a higher mean proportion of securely attached

individuals than the ID and IF statuses. Arseth et al. (2009b) found 14 research studies

that met the criteria necessary for analysis in this study and found overall weak to

moderate correlations between attachment style and identity status. The statistically

significant correlations that they found ranged from as weak as .04 (IM and dismissing

attachment) to as strong as -.23 (ID and secure attachment). Contrary to their first

hypothesis that secure attachment would lead to identity exploration, IM scores were

found to negatively correlate with secure attachment. IA scores were found to have a

statistically significant positive correlation with secure attachment, but IM scores were

not found significantly correlate with secure attachment (Arseth et al., 2009b). For the

second hypothesis, ID scores were found to correlate negatively with secure attachment,

but IF scores were found to correlate positively with secure attachment. Therefore, the

second hypothesis was not supported. These findings suggest that having a secure

attachment is more likely to lead to identity *commitment* than identity *exploration*. The

third hypothesis was partially supported in that the mean proportion of individuals with

IA having secure attachment was .55 and the mean proportion of individuals with IM

having secure attachment was .37 (IF = .28 & ID = .23). There was a significant

difference between the mean proportions for IA and ID, which supports the hypothesis.

Because of the small sample size in this study, statistically significant findings are of

particular note (Arseth et al., 2009b). Overall, this study shows that there are significant

connections between attachment style and identity status, but that the relationships might

not be as theorized. It seems that there might be a difference in the exploration discussed

in attachment theory and in identity status. Also, it is unclear what the connection is

between secure attachment and identity commitment because secure attachment was found to be positively correlated with making a commitment (statuses IA and IF) and negatively correlated with not making a commitment (statuses ID and IM). More research is needed to investigate these relationships, especially because of the small sample size of this study.

In one of the first studies looking at the correlations between attachment styles and identity statuses, Kennedy (1999) investigated the relationships between attachment style and identity status. She was looking for correlates of attachment style from early and concurrent family factors, of which one of the variables was identity status as measured by the EOMEIS-II. In her analysis, Kennedy (1999) found that there were some significant relationships between attachment styles and identity status with each identity status except for IF having statistically significant differences. Individuals with preoccupied attachment were found to have higher ID and IM scores than individuals with secure attachment. Individuals with fearful attachment were found to have higher ID scores than individuals with secure attachment, and individuals with secure attachment had higher IA scores than individuals with fearful attachment (Kennedy, 1999). The findings provide support for a connection between attachment style and identity status, specifically in that secure attachment is related with higher IA compared to fearful attachment, lower ID compared to fearful and preoccupied attachment, and lower IM compared to preoccupied attachment. While she was looking for predictors of attachment style, Kennedy (1999) acknowledges that the prediction could go either way in that the relationships found in the study could describe identity status predicting

attachment style or attachment style predicting identity status. She urged further studies

to continue to investigate this relationship to help clarify this relationship using

longitudinal studies.

MacKinnon and Marcia (2002) examined the relationship between attachment

style and identity status in mothers of preschool children. They found that there were

significant relationships between attachment styles and the different identity statuses as

measured by the Ego Identity Status Interview. Overall, MacKinnon and Marcia (2002)

reported a significant multivariate relationship ($F_{12, 225.18} = 2.15$, p = .0074) between

attachment styles and identity status. On follow up univariate analysis, they also found

that 56.4% of individuals with secure attachment were IA and 38.5% were IF, that

individuals with fearful attachment were spread throughout IA (33.3%), IM (16.7%), IF

(25.0%), and ID (25.0%), that 60.0% of individuals with preoccupied attachment were IF,

and that 58.3% of individuals with dismissive attachment were IA. While the connection

between secure attachment and IA was not surprising, the finding that over half of the

individuals with dismissive attachment were found to be in IA was surprising. This

might be due to the small sample size ($n = 90$) and that there were 12 participants with

dismissive attachment, whereas the number of participants with secure and fearful

attachment were much higher at 39 and 24, respectively. That might also explain the

univariate analysis that found that the relationships between secure attachment and the

identity statuses and fearful attachment and the identity statuses were statistically

significant but the other two types of attachment (preoccupied and dismissive) were not

found to have statistically significant relationships with the identity statuses.

Similarly, Berman et al. (2006) investigated the relationships between identity status and romantic attachment style in college students and in high school students from southeast Florida. While the relationship between identity status and romantic attachment style was a primary focus of the study, Berman et al. (2006) also investigated whether there were differences between the high school and college participants and if differences existed based on biological sex. In their analysis, they found that age was a significant factor in identity status and attachment style but that biological sex was not. Overall, Berman et al. (2006) did find significant relationships between identity status and attachment style in that individuals with IF status had lower relationship avoidance scores than those with ID status and had lower relationship anxiety scores than those with either IA or IM statuses. This is an interesting finding that relates to what other researchers (Schwartz et al., 2009a; Schwartz et al., 2011a) have found when looking at identity status and overall anxiety. Other researchers, however, have not repeated the study of Berman et al. to reexamine their findings.

One reason why this study might have found different results is because the participants have a much higher percentage of racial and ethnic minorities compared to the other studies. Hispanic-Americans (63%) and African-Americans (18%) composed a majority of the participants in the study, and differences in racial/ethnic background could account for the different results in this study. Additionally, the way in which attachment style and identity status are measured has not been consistent across the studies reviewed here. The difference in measurement could account for some of the differences in the findings. Whatever the reason for the findings, Berman et al.'s (2006)

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study highlights the fact that the relationship between attachment style and identity status remains unclear and needs further investigation.

Overall, researchers have found some modest relationships between attachment and identity; however, these findings are far from robust or consistent and suggest that continued examination is important. The correlations between attachment style and identity status reported in these studies are moderate, suggesting that other factors may impact the relationship between attachment style and identity status. Also, the direction of prediction is uncertain. Some researchers have investigated it as attachment style predicting identity status, and other researchers have hypothesized it is identity status that predicts attachment style. It is clear that continued research on the relationship and prediction of attachment style and identity status is important to help clarify the many questions that remain, including are there other important predictors of identity status and the directionality of prediction.

Differentiation of Self

Murray Bowen and Bowenian Family Therapy

Murray Bowen (1976; 1978) developed the most comprehensive theory of human functioning in a systems perspective (Skowron, Van Epps, & Cipriano, in press). Bowen used his experiences in psychiatry to create an intergenerational approach to working with families (Bowen, 1978). Bowen was trained as a physician and served in the United States Army in World War II. After his experiences in WWII, Bowen decided to change his focus to psychiatry and concluded his residency at the Menninger Foundation in Kansas. He worked with patients with schizophrenia and based a large part of his theory

on his work with this population (Bowen, 1978; Bowen Center, n.d.). While at the

Menninger Foundation, Bowen noticed that there was a systemic nature to the symptoms

of the patients with schizophrenia in that the symptoms became worse when the patients

were with their family of origin. Therefore, Bowen hypothesized that there was a

systemic nature to their symptomology and that the individual needed to be

conceptualized within the context of her or his family (Bowen, 1978). He continued his

career by working for the National Institute of Mental Health, as the director of The

Family Center, and at several universities as a faculty member or visiting professor

(Bowen Center, n.d.; Rabstejnek, n.d.).

Bowen is credited as creating one of the most prominent and widely used

approaches in marriage and family therapy (Jenkins et al., 2005). In Bowen's theory,

there are eight major concepts (triangles, differentiation of self, nuclear family emotional

process, family projection process, multigenerational transmission process, sibling

position, emotional cutoff, and societal emotional process), although the major tenet of

his theory is differentiation of self (Bowen; 1978; Bowen Center, n.d.; Lambert &

Friedlander, 2008; Rabstejnek, n.d.).

Differentiation of Self

Differentiation of self is an individual's ability to remain oneself by

psychologically separating from significant others while being emotionally connected

with those people (Bowen, 1978; Johnson et al., 2003). This means that an individual

with a high level of differentiation of self is likely to able to separate his or her own

thoughts and feelings from the thoughts and feelings of others, and an individual with a

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low level differentiation of self is likely to have "fused" his or her thoughts and feelings

with the thoughts and feelings of others. Therefore, differentiation is important for

balancing the needs of autonomy (being separate and independent from others) and

intimacy (being able to be close to someone) (Bowen, 1978; Lambert & Friedlander,

2008; Peleg-Popko, 2002).

Differentiation of self was hypothesized by Bowen and has been operationalized

into four components: emotional reactivity, taking "I" positions, emotional cutoff, and

fusion with others (Bowen, 1978; Skowron & Friedlander, 1998). Emotional reactivity is

characterized by difficulty managing emotions in that an individual would have trouble

with the expression, experience, and intensity of her or his feelings, which would take a

significant amount of energy. Taking "I" positions regards the ability for an individual to

be able to maintain her or his sense of self in spite of pressure from others to act, think, or

feel certain ways. Emotional cutoff is an affective disconnection and lack of intimacy

with others, which is often displayed as an individual isolating himself or herself. Fusion

with others is an emotional overreliance on others' beliefs and opinions that often leads

the individual to seek acceptance and approval regardless of the impact to self (Peleg-

Popko, 2002). Bowen (1978) discussed the importance of developing a higher level of

differentiation of self in order to avoid negative psychological effects such as anxiety and

to increase an individual's sense of self and ability to be close to others. Differentiation

is the key concept in Bowen's theory because it allows for the development of self, the

ability to handle anxiety without cutting off connection with others, the mitigation of

psychological distress, and the ability to be oneself even when very emotionally close

with another person (Bowen, 1978; Jenkins et al., 2005; Peleg-Popko, 2002).

These components of differentiation of self were initially proposed by Bowen

(1978). Subsequently, Skowron and Friedlander (1998) created a measure, the

Differentiation of Self Inventory, to be able to measure these components. Since the

creation of that measure, differentiation of self, conceptualized by Skowron and

Friedlander (1998) as the sum of the four components, has been repeatedly investigated,

and several researchers have found it to follow Bowen's hypotheses about differentiation

of self and its link to less psychological distress and anxiety (Peleg-Popko, 2002;

Skowron & Dendy, 2004; Skowron, Stanley, & Shapiro, 2009; Tuason & Friedlander,

2000). Consistently, researchers have found that higher levels of differentiation are

correlated with lower levels of anxiety and psychological distress such as depression,

which is important for overall wellness.

As researchers have investigated differentiation of self, many have found that

there seem to be sex differences with the emotional reactive and emotional cutoff

components of differentiation of self. Consistently, researchers have found that more

females score higher on emotional reactivity and males higher on the non-emotional

reactive component (Johnson et al., 2001b; Peleg-Popko, 2004; Skowron, 2000; Skowron

& Friedlander, 1998). At this point, it is unclear what the rationale is for this finding,

though it has been hypothesized that it is due to socialization differences for young men

and women (Bartle-Haring, 1997; Peleg-Popko, 2004; Skowron & Friedlander, 1998) or

that emotional reactivity and emotional cutoff are two sides of the same coin (Horne &

Hicks, 2002). Whatever the reason, it seems that there may be some important differences between men and women in differentiation of self.

Differentiation of Self and Identity Status

The connection between differentiation of self and identity development comes from similar theoretical connections in how each theory views psychosocial development. According to Marcia (1966, 1980), an individual would have to go through the identity development process of constructing a sense of self that is separate from significant others in order to reach the identity achievement status. Therefore, the individual would have to have a certain level of differentiation to be able to see her- or himself as an individual separate from significant others with emotions and thoughts that are distinct from those significant others to reach that identity status. A higher level of differentiation of self would then provide the individual with the ability to see him- or herself as a separate person and have the ability to deal with the anxiety related to creating an identity. The connection between differentiation and identity status is also because having a higher level of differentiation would allow the individual to more freely engage in identity exploration and reach identity statuses that have had or are currently exploring identity (i.e. identity moratorium and identity achievement; Jenkins et al., 2005). Conversely, lower levels of differentiation would be likely to lead to the diffusion or foreclosure identity statuses because of the difficulty handling emotions related to identity exploration.

At present, two sets of researchers have studied the relationship between differentiation of self and identity status (Jenkins et al., 2005; Johnson et al., 2003), and

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one set of researchers has investigated the relationships among differentiation of self, identity status, and attachment style (Ford et al., 2008). The studies varied in terms of how they viewed the relationship in that one set of researchers hypothesized that identity status would predict differentiation of self and the other two sets of researchers hypothesized that differentiation of self would predict identity status.

Johnson et al. (2003) conducted the first study to examine the relationship between identity status and differentiation of self. They investigated whether the identity statuses predicted differentiation of self. To substantiate this perspective, Johnson et al. (2003) provided a rationale for investigating the predictors of differentiation for young adults beyond the one theorized predictor provided by Bowen (1978), that is, the differentiation level of the individual's parents or guardians. They cited researchers who had postulated that young adults seem to play a role in their own process of differentiation and that an active search for identity seemed to stimulate the differentiation process and higher levels of differentiation of self. Johnson et al. (2003) acknowledged that the differentiation process was not a process well understood to explain the exploratory nature of their study. Therefore, they measured identity status through the EOMEIS-II and differentiation of self on the Differentiation of Self Inventory (DSI; Skowron & Friedlander, 1998) and found that all four identity statuses were able to predict one or more subscales of differentiation of self and that two identity statuses were able to predict the total differentiation of self score. IA scores significantly predicted "I" Position (F[1, 254] = 9.63, p < .01; α = .20), IM scores significantly predicted "I" position (F[1, 254] = 10.85, p < .001; α = -.20), fusion with others (F[1, 254] = 4.90, p <

.01; α = -.05), emotional reactivity (F[1, 254] = 30.24, p < .001; α = -.26), emotional

cutoff (F[1, 254] = 6.22, p < .01; α = -.37), and total differentiation of self (F[1, 254] =

32.06, p <.001), IF predicted fusion with others (F[1, 254] = 32.08, p < .001; α = -.32)

and total differentiation of self (F[1, 254] = 7.93, p < .01), and ID predicted emotional

reactivity (F[1, 254] = 8.63, p < .01; α = -.03) and emotional cutoff (F[1, 254] = 12.87, p

< .001; α = -.41). The correlations and statistical significance found for IA, IF, and ID

scores were as predicted. It was hypothesized that higher IA scores would be related to

being able to hold onto convictions in spite of social pressure to change ("I" position),

that IF scores would be related to not differentiating from others (overall differentiation

of self) by means of being overly connected (fusion with others), and that ID scores

would be related with being less engaged in terms of less emotional engagement

(emotional reactivity) and more emotional distance (emotional cutoff) from others. For

IM scores, all of the findings were more complicated; Johnson et al. (2003) reported that

greater scores on IM predicted less of an ability to hold onto convictions in spite of social

pressure ("I" position), less developed sense of self (overall differentiation of self), less

emotional management and more emotional instability (emotional reactivity), being

overly connected with others (fusion with others), and more emotional disconnection

with others (emotional cutoff). From this prediction, Johnson et al. (2003) highlighted a

seemingly contradiction in that an individual in IM would be more emotionally reactive

and more fused with others at the same time as scoring high on emotional cutoff. It begs

the question of how can someone be closer with others and emotionally cutoff with others

at the same time. This does seem to be an interesting finding in their prediction model,

and Johnson et al. (2003) explain that this may be due to having high emotional experience in moratorium that leads to swings of emotional fusion with others and emotional cutoff. However, Johnson et al. (2003) did not take into account the significant correlations between IM scores and emotional reactivity (-.26, significant at p < .01), "I" position (-.20, significant at p < .01), emotional cutoff (-.37, significant at p < .01), and fusion with others (-.05, non-significant at p < .05). The negative correlations between IM and the four components of differentiation mean that higher scores on IM would be associated with lower scores of differentiation for each of those components. The connection between IM and fusion with others is not statistically significant. No weights of the prediction of differentiation of self or the variance explained is given by Johnson et al. (2003), although the variance explained can be calculated by squaring the provided correlations. Therefore, this study does provide evidence of the significant correlations between the variables and the variance explained, which ranged from .02 to .17.

While Johnson et al. (2003) hypothesized that identity status would predict differentiation of self, the other two studies involving identity status and differentiation of self have hypothesized that differentiation of self would predict identity status. Jenkins et al. (2005) did not specifically measure identity status but instead chose to measure the identity versus role confusion psychosocial stage, as well as the other seven psychosocial stages. These researchers investigated Bowen's theory by seeing if differentiation of self led to greater psychosocial adjustment. They found that differentiation of self explained 44% of the variance in the resolution of the identity versus role confusion stage

(F[4,309]= 60.10, p < .001). They also found that each of the components of differentiation of self were significant in predicting the resolution of the identity versus role confusion stage in that lower emotional reactivity (F[1, 309] = 5.44, p < .05), higher "I" position (F[1, 309]= 58.28, p < .001), lower emotional cutoff (F[1, 309] = 21.17, p < .001), and higher fusion with others (F[1, 309] = 5.58, p < .05) significantly predicted greater resolution of the identity versus role confusion psychosocial stage. All of the findings except for the fusion with others support that differentiation of self predicts identity status in that greater differentiation of self leads to more of an identity resolution, or most likely greater commitment to an identity.

Jenkins et al. (2005) interepreted the finding regarding greater fusion with others leading to greater resolution of identity versus role confusion, and also intimacy versus isolation, might be due to measurement difficulties of the fusion with others scale on the DSI, which was revised by Skowron and Schmitt (2003). Jenkins et al. (2005) gave no rationale for why they used the DSI instead of the DSI-R, which had an updated fusion with others scale, or for any theoretical reason for the finding with fusion with others leading to greater resolution of the identity versus role confusion stage. Because they did not look specifically at the identity statuses, there could be differences at the identity status level that would have explained this phenomenon. For instance, IA and IF are the two "resolutions" of identity versus role confusion, but researchers have found different outcomes for those two identity statuses (Berman et al., 2006; Kroger & Marcia, 2011; Waterman, 2007). This study does provide substantial evidence for the connection

between differentiation of self and the identity versus role confusion stage and by proxy with the identity statuses.

The most recent study investigating the relationship between differentiation of self and identity status was completed by Ford et al. (2008). They wanted to look at differentiation of self, identity status, and attachment style for fathers, and they created a conceptual framework based off of previous literature to suggest that differentiation of self as measured by the DSI would predict identity status as measured by the Objective Measure of Ego Identity Status (OMEIS), and that identity status would predict the attachment style of the fathers in their relationship with their children as measured by the Inventory of Parent and Peer Attachment (IPPA) and the Experiences in Close Relationship Scale (ECRS). From their analysis, they found that differentiation of self significantly correlated with each of the identity statuses. Based on the squared correlations reported in Ford et al.'s (2008) study, differentiation of self predicted 14% of the variance in IA, 69% of the variance in IM, 5% of the variance in IF, and 59% of the variance in ID, demonstrating that differentiation appears a stronger predictor of some identity statuses than others. Identity status and differentiation of self did not significantly predict attachment style; however, commitment to identity did significantly predict the three types of attachment (parent, avoidance, and anxiety attachments) and identity crisis did significantly predict avoidance attachment (Ford et al., 2008).

There are some significant limitations in Ford et al.'s (2008) study. They only used fathers as attachment figures and did not obtain the age of their children. This study university students only and had an overrepresentation of Caucasians who were wealthy,

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and married. They also used the past versions of the EOMEIS and the DSI-R instead of the more current versions of those assessments. The DSI had documented problems with the fusion with others subscale (Skowron & Schmitt; 2003), and this might have impacted the study. At the same time, this study also provides further support for the relevance of the relationship between differentiation of self and identity statuses and in particular that differentiation of self can significantly predict identity status.

Need for Additional Predictors of Identity Status

The research on the predictors of identity status is still being built, and there is not a clear prediction model at present. According to Erikson (1968), Bowlby (1982), and Bowen (1978), attachment style and differentiation of self theoretically would predict identity status, and some researchers have provided initial empirical support for these assertions (Berman et al., 2006; Ford et al., 2008; Jenkins et al., 2005; Johnson et al., 2003; Kennedy, 1999; MacKinnon & Marcia, 2002). The empirical support is far from compelling, however, and contradictory findings are common. To date, however, researchers have not used both differentiation of self and attachment style as predictors of identity status in the same study. It is unclear, then, whether the variance explained by each of these predictors would be additive or whether much of this would be shared variance. This highlights a need for research that includes both differentiation of self and attachment style as predictors of identity status.

Even if the attachment style and differentiation of self have little shared variance in predicting identity status, there remains a substantive portion of unaccounted variance in identity status. This suggests that other predictors of identity status need to be

examined. Researchers have typically accounted for between 10% and 70% of the variance in these studies, with most researchers accounting for somewhere between 20% and 30% of the variance. This leaves the majority of the variance in identity status unexplained, which means that there might be another predictor or other predictors that might be able to contribute to the prediction of identity status.

The two current predictors of identity status, attachment style and differentiation of self, are broad constructs that involve more global aspects of how an individual interacts. Often, this big picture level of analysis is helpful in finding patterns, connections, and relationships between variables or constructs. There may be smaller processes that are important, however, in identity development and in the prediction of the identity statuses that are missed by attachment style and differentiation of self.

Researchers have found connections between mood (Hofer et al., 2007), internal locus of control (Schwartz, 2007), and narratives (Cox & McAdams, 2012; McAdams, 2001; 2011) with identity status, although there is no theoretical model beyond Erikson (1968) and Marcia (1966; 1980) cited to explain the connections. Eric Eisenberg (2001) has created a model of the identity development process that links some of these constructs that might be useful in conceptualizing and integrating other possible predictors of identity status.

Identity Process Model

Eric Eisenberg (2001) proposed a model of identity development based off of his communication and social constructivist background. Eisenberg had been studying identity and noticed the trends of viewing identity as a more dynamic construct over the

last couple of decades. Eisenberg (2001) proposed a model of identity development

where a sense of self emerges and shifts over time. Eisenberg (2001) proposed a new

theory of how identity is constructed and reconstructed to expand the discussion of

identity in communication theories and connect important contexts and processes that are

important in creating and recreating a sense of self.

Eisenberg was aware of the contextual, or what Erikson would likely have called

social, aspects of how identity is formed and reformed based on interactions with those

outside ourselves. Eisenberg discussed the context that an individual is in as an

important factor of what identity forms. Eisenberg (2001) called this context "the

surround" that envelops the individual and impacts the subprocesses of identity

formation. Eisenberg expressed that there are three subprocesses (mood, communication,

and personal narrative) that work together as the process to form the way individuals

create or recreate her or his identity.

Surround. Eisenberg (2001) understood that the environment and context of an

individual is important to identity development. He noted that the world is already in full

swing with many different connections and cultures existing when an individual is born

and that the factors of that system impact the individual and her or his sense of self. All

of these factors taken together are called "the surround" by Eisenberg (2001), and he

specifically noted the spiritual, economic, cultural, societal, interpersonal, and biological

aspects of the surround. With each of those aspects, Eisenberg pointed out that each has

its own guiding principles, norms, stories, and acceptable and unacceptable behaviors.

These have a significant influence in shaping an individual, and the individual has a wide

realm of information, rules, and patterns that the individual can use to make sense of and meaning for their lives. Some of the processes of making meaning and coming to a sense of self are conscious and discussed while other processes are unconscious, either taken in without conscious thought or happening by means of biological pathways. Eisenberg (2001) highlighted the importance of the interplay between these various aspects of the surround and that the context and environment for an individual is an important factor of the process by which identity is constructed and reconstructed.

This concept of taking into account the ecological perspective is not new to identity development and is, in fact, congruent with Erikson's (1968) thoughts and theory of development. Erikson called his developmental theory psycho*social,* emphasizing the interplay of psychological and social influences have on an individual's development. The surround is actually a concept of Eisenberg's (2001) theory that links the identity development processes that he proposed with other theories and research findings on identity development (Cooley, 1902; Erikson, 1968; Gergen, 1971; Goffman, 1982; Shotter & Gergen, 1989). Eisenberg argued that the three subprocesses of identity development occur in a specific environment with multiple influences, which is congruent with other theories of identity development, and expresses that the meaning making subprocesses take place within that context.

Mood. The first meaning making subprocess of identity development that Eisenberg described was mood. Mood is an individual's general orientation towards time (e.g., hopeful, anxious, excited, happy, depressed, or angry) (E. Eisenberg, personal communication, June 8, 2012). The way that an individual subjectively feels at present

and about the future is important in considering mood (Eisenberg, 2001). The affective experience plays a role in how the individual creates or recreates her or his sense of self. If an individual is anxious about a current or upcoming task, then the individual might perceive him- or herself as inadequate to handle the task. The mood of the individual has a significant influence on the perception of self, which can lead to higher frequency of a specific mood as it is reinforced through communication with others, self-reinforcing patterns, and an internalization of messages, feelings, and thoughts.

Both biological and emotional aspects of mood are a part of Eisenberg's conceptualization of mood, specifically that there are conscious and unconscious moods that are impacting identity construction. The biological and emotional processes are somewhat inseparable in Eisenberg's (2001) conceptualization of mood. Neurological researchers have provided evidence for this in the way that emotions are able to be detected at a chemical level in the brain and that brain structure is impacted by emotional experiences, which has been especially shown in research on brain trauma (Gerhardt, 2006; Lang, Bradley, & Cuthbert, 1998; LeDoux, 2000). Eisenberg (2001) acknowledged that the biological and more conscious affect are important in a person's mood, which then impacts the subjective way that an individual makes meaning and creates or recreates a sense of self based off of these conscious and unconscious moods that the individual experiences.

While this is not fully captured directly through identity status, attachment style, or differentiation of self, mood is discussed and researched as an important factor of these constructs. Anxiety is especially discussed in these theories as it is inherent in identity

exploration (identity status), important to be managed through self-regulation and by turning to important people in our lives (attachment style), and difficult to manage without creating a separateness of self while still being able to be intimate with others (differentiation of self). Several studies on identity status have explicitly shown that mood is tied to identity status (Schwartz et al, 2009a; Schwartz et al., 2011a). Eisenberg's (2001) discussion of mood connects these theories and explicitly addresses the importance that mood has on identity formation.

Communication. Communication was the second meaning making subprocess that Eisenberg proposed. More specifically, Eisenberg defined communication as an individual's interpersonal approach in terms of openness and defensiveness to others' worldviews (E. Eisenberg, personal communication, June 8, 2012). Eisenberg (2001) was well aware of how important communication and different types of communication are to human existence and described that the openness and defensiveness in communication with others is an important aspect of identity construction. For example, Eisenberg contrasted two types of communication: discussion and dialogue. Discussion, which comes "from the same root as 'concussion'" (p. 548), is characterized as a closed, defensive interaction with another that is more likely to lead to sustaining current positions, beliefs, possibilities, and identities whereas dialogue is characterized by a common connection and openness between speakers where the individuals' voices are shared that can lead to new positions, beliefs, possibilities, and identities. Therefore, Eisenberg (2001) emphasized the importance of open communication that can lead to

new identity constructions and configurations; alternatively, defensiveness entrenches current conceptualizations and beliefs.

This subprocess is not as directly or explicitly related to identity status research and is more of an addition and fuller conceptualization of what impacts identity status. Erikson (1968) described the identity formation process occurring in the context of a back-and-forth interplay between an individual and other important people in her or his life. Erikson hypothesized that adolescents try on different roles and get feedback from peers, parents, and society that informs them if that identity and role is acceptable and desirable. Indirectly, Erikson was talking about the openness and defensiveness that adolescents have in regard to communicative feedback from important others to the adolescent, but Eisenberg opened the door to more exploration about how an individual is open to and uses communication to change her or his sense of self and identity or if the individual is closed and defends against communication that may change self-perceptions.

Personal Narrative. The third meaning making subprocess that Eisenberg proposed was personal narrative. Personal narrative is an individual's ongoing authorship and editing of her or his life story and the perception of power and possibility of the individual as well as the individual's openness to change (E. Eisenberg, personal communication, June 8, 2012). While Eisenberg (2001) emphasized the interconnection and importance of the three meaning making subprocesses together, he seemed to place more weight on the personal narrative subprocess and called it the "primary tool people use in sense making" (p. 546). Personal narrative involves the beliefs, orientations,

perceptions and, most importantly, autobiographies of an individual. It involves the

narrating and "restory"ing of our lives, whereas an individual makes meaning out of the

events and experiences that he or she has and can remake meaning of those events and

experiences. Eisenberg (2001) described this as a continual process of ongoing narration

of our lives, our own personal narrative. Important parts of this narration are the

perspective of personal power and possibilities in the individual's life. According to

Eisenberg, the narrative and identities of the individual are substantially impacted by the

power that an individual sees that he or she has and by the possibilities or lack thereof in

her or his life. How an individual answers and continues to answer questions such as "do

I have the ability and/or strength to _____" and "are other people more in control

of my life" are important in the way the individual feels, the way that the individual

interacts with others, and the identities that the individual takes on. The answers to these

questions also directly relate to the possibilities that the individual has for him- or herself.

Questions such as "is it possible for me to be like that," "is that option really open for

me," and "would this be feasible for me" are important to the opportunities or limitations

that the individual sees for her- or himself. Together, the ongoing narration, the

perception of personal power, and the perception of personal possibilities shape the

personal narratives of people, which in turn impacts their identities.

A person's internal story and perception of self is related to Marcia's identity

statuses, although the personal narrative goes beyond that. Eisenberg's conceptualization

of personal narrative contains aspects of a few different things including locus of control,

sense of power, and narrative identity. McAdams (2001) offers a more contemporary

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way of examining Erikson's identity versus role confusion stage by looking at identity from a narrative perspective. McAdams took a different perspective from Marcia and examined the stories of the lives and identities of clients instead of the status of the resolution of the identity versus role confusion stage. Taking Eisenberg's (2001) model and combining it with Marcia's identity statuses might provide a fuller picture of identity and identity statuses including what predicts identity status and what leads to greater wellness and decreased psychological symptoms. Using this approach can answer McLean and Pasupathi's (2012) call to integrate the identity status and the narrative perspectives by using a narrative approach to inform the identity statuses.

While the meaning making subprocesses were discussed separately here, Eisenberg (2001) stressed how these three subprocesses of mood, communication, and personal narrative are integrated and work together in the process of making meaning and creating or recreating a sense of self. He stressed that identity is constantly in flux to a greater or lesser degree based on individuals' interactions with the surround. The communication with others will impact the mood and feelings that people have as well as the stories that people tell themselves and each other. Mood impacts how people communicate with others and the way that they envision and color their autobiographies. The personal narratives that people have will impact the way that they feel in different situations and how they will interact with those around them. With his model, Eisenberg said, "(t)aken together, these elements constitute a new aesthetic of communication and identity, one that reveals how more restricted patterns of thought and behavior are self-reinforcing, and suggest ways that new patterns can be introduced into the system" (2001,

p. 543). This identity process model from Eisenberg (2001) might help illuminate some

of the gaps in our understanding of the development towards and predictors of identity

status. At present, no studies have empirically investigated Eisenberg's model, so the

current connection with identity status is theoretical only. It is important to empirically

investigation how mood, communication, and personal narrative as defined by Eisenberg

serve to predict identity status. These results could add to understanding of how people

reach specific identity statuses.

Summary

It has been established that Erikson's (1968) conceptualization of identity is an

important consideration in overall development and that Marcia's (1964; 1966) identity

statuses are connected with greater overall wellness (Hofer et al., 2007; Schwartz et al.,

2011a; Waterman, 2007) and decreases in psychological symptomatology (Meeus et al.,

1999; Phinney, 1989; Schwartz et al., 2011a). Researchers have established that having a

commitment to identity (the IA and IF identity statuses) leads to these mental health

benefits, and researchers are now looking for the predictors of identity status.

Attachment style (MacKinnon & Marcia, 2002) and differentiation of self (Ford et al.,

2008; Jenkins et al., 2005; Johnson et al., 2003) have been investigated, and researchers

have found some promising results for attachment style or differentiation of self

predicting identity status. These two predictors separately only explain a mild to

moderate amount of variance in identity status, so it might be important to look at other

predictors. Eisenberg's (2001) Identity Process Model is a promising predictor of

identity status that has yet to be investigated. There is a need for empirical research to

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test attachment style, differentiation of self, mood, communication, and personal

narrative as possible predictors of identity status.

CHAPTER III

METHODOLOGY

In the second chapter, a comprehensive review of the literature was provided surrounding identity status, Eisenberg's Identity Process Model, attachment style, and differentiation of self. In this chapter, the hypotheses, participants, instruments, procedures, and data analysis of the dissertation study are described. Also, the results and implications of the pilot study are discussed.

Research Hypotheses

The research questions of the study were listed in the first chapter and are provided here, along with concomitant hypotheses:

Research Question 1: What are the bivariate relationships among mood, personal narrative, communication, attachment-related anxiety, attachment-related avoidance, differentiation of self, and identity status among a college sample of emerging adults aged 18-25?

Hypothesis 1: Statistically significant correlations will be found between mood level, personal narrative, communication, attachment-related anxiety, attachment-related avoidance, level of differentiation, and identity status such that there will be positive correlations between mood level, personal narrative, communication, differentiation of self, and identity status and negative correlations between attachment-

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related anxiety and attachment-related avoidance with mood, personal narrative, communication, differentiation of self, and identity status.

Research Question 2: What effect do mood, personal narrative, communication, attachment-related anxiety, attachment-related avoidance, and differentiation of self have on the prediction of identity status?

Hypothesis 2: A statistically significant portion of variance of identity status will be explained by mood level, personal narrative, communication, attachment-related anxiety, attachment-related avoidance, and differentiation of self.

Research Question 3: Does biological sex have an effect on differentiation of self?

Hypothesis 3: A statistically significant difference between men and women will be found in the subscales of emotional cutoff (males statistically higher than females) and emotional reactivity (females statistically higher than males), and there will not be a statistically significant difference found between men and women on the subscale scores of I-position and fusion with others.

Research Question 4: Is it important to predict identity status separately for each biological sex?

Hypothesis 4: Separate linear regressions for men and women would better predict identity status than using one linear regression of men and women combined to predict identity status.

Participants

The participants in the study were 18-25 year old college students at a medium-sized public university in central North Carolina. The participants were recruited from undergraduate classes, and demographic information was obtained both for descriptive purposes and for use in the research questions. To determine an appropriate sample size, the G*Power analysis program was used to determine the sample size. Because research questions 3 and 4 require an analysis based biological sex, however, it is necessary to obtain a sample that includes a sufficient number of both men and women. Based on G*Power analyses, it was determined that a minimum of 153 men and 153 women were needed based on an effect size of .15, an α of .05, and seven predictors for a multiple linear regression. Detailed information about the sample is provided in Chapter IV.

Instrumentation

The instruments used in this study will include a demographic questionnaire, the Extended Objective Measure of Ego Identity Status-II [EOMEIS-II; Bennion & Adams, 1986), the Experiences in Close Relationship Scale – Short Form (ECR-S; Wei, Russell, Mallinckrodt, & Vogel, 2007), the Differentiation of Self Inventory-Revised (DSI-R; Skowron & Schmitt, 2003), the Mood Survey (MS; Underwood & Froming, 1980), the Interpersonal Communication Inventory (ICI; Bienvenu, 1971), and a researcher developed measure of personal narrative (PPPS) as defined by Eisenberg (2001; personal communication, June 8, 2012).

Demographic Questionnaire

The demographic questionnaire (See Appendix H) was composed of five items to assess participants' age, biological sex, ethnicity, academic year, and major. The age demographic was used to ensure that the participants met the age criteria to be included in the study, and the biological sex demographic was used to analyze Research Questions 3 and 4. Data on ethnicity, academic year, and major also were obtained for descriptive purposes.

Extended Objective Measure of Ego Identity Status-II (EOMEIS-II)

The most widely utilized instrument to measure identity status is the Extended Objective Measure of Ego Identity Status - II (EOMEIS-II; Bennion & Adams, 1986 - see Appendix C). The EOMEIS-II was updated from the first version of the instrument, the Objective Measure of Ego Identity Status (OMEIS), by Adams et al. (1979). The OMEIS contains 24 items and is scored on a six point Likert-type scale on ideological (including occupational, religious, and political components) aspects, and the EOMEIS-II has 64 items scored on the same six point Likert-type scale with ideological (including occupational, religious, political, and philosophical components) and interpersonal (including friendship, dating, sex roles, and recreational components) domains. The EOMEIS-II contains eight questions for each domain, two questions for each of Marcia's identity statuses. Each of the identity statuses has a sub-score and critical cutoff score to determine the overall determination of identity status for the specific aspect and for overall identity status. The EOMEIS-II is scored with an ideological rating, an

interpersonal rating, and a total rating (Adams, 1998). The total rating is the composite scores of the ideological and interpersonal ratings.

The ratings are based on the Likert-scale answers for each of the identity statuses and compared to the cutoff scores, which were determined using the norming population and being at least one standard deviation above the mean for that identity status. The cutoff score for identity diffusion is 53, identity foreclosure is 53, identity moratorium is 63, and identity achievement is 73. For example, then, an individual with scores of 40, 49, 70, and 65, respectively, would be rated as being in identity moratorium because that is the only score above the cutoff (Adams, 1998). While this example is straightforward, there are two more complicated scoring profiles, when an individual scores higher than the threshold for more than one identity status and when an individual does not score higher than the cutoff for any identity status. In the first case, the "less sophisticated" (identity diffusion, identity foreclosure, identity moratorium, and identity achievement from less to more sophisticated) identity status will be used when a participant scores higher than the cutoff score on two identity statuses, and participants' data with scores above the cutoff for three or four identity statuses will not be used in this study in accordance with the scoring guidelines as described by Adams (1998). As for the latter case when an individual does not have scores above the threshold for any identity status, the individual falls into a "low profile" or "undifferentiated" moratorium, which will be compared to the "pure" moratorium participants. If the dependent variable shows no difference between "low profile" or "undifferentiated" moratorium with "pure" moratorium, then the "low profile" and "pure" moratorium participants both will be

considered as moratorium, which is the recommended approach in the manual for the EOMEIS-II (Adams, 1998). If there are differences in participants in the "low profile" and "pure" moratorium statuses, then they were treated as separate identity statuses. The overall identity status rating for the EOMEIS-II was used in this study in Research Questions 1, 2, and 4.

The EOMEIS-II has been used in many studies, and solid evidence exists both for validity and reliability (Adams et al., 1979). Evidence of reliability has been established using internal consistency, test-retest, and split-half processes. The internal consistency estimates from 20 different studies using the EOMEIS II gave alpha coefficients ranging from .30 and .91, with a median of .66. These reported correlations were for each individual component, and the alpha coefficients for the identity status for these studies were .63 (Bennion, 1988), .67 (Bennion & Adams, 1986), .72 (O'Connor, 1995), and .79 (Perosa, Perosa, & Tam, 1996). Although some of the alphas attained in these studies are below a critical threshold of .70 often used in social science research (Heppner, Wampold, & Kivlighan, 2008), the average alpha from these studies is .70. Alphas will be computed and reported for the current sample. In the pilot study (full results to follow), Cronbach alphas were found to be .75 for ID, .87 for IF, .75 for IM, and .67 for IA. Test-retest reliability has been measured in at least 3 different studies, and each time the reliability was considered to be acceptable with a median correlation of .76. The split-half reliability has been tested with total score correlations ranging from .37 and .64 (Adams, 1998).

The validity of the EOMEIS-II has been examined using construct validity, concurrent validity, and various aspects of face validity. Construct validity has been examined using six factor analyses, five convergent/divergent correlations between the sub-scales, and two discriminant validity studies. Researchers have used factor analytic procedures to demonstrate support for the theoretical statuses (Marcia's four identity statuses). One exception is that researchers have found shared variance between identity diffusion and identity moratorium, which may mean that those identity statuses are not able to be differentiated as well by the EOMEIS-II or that they are not as distinct as theoretically stated (Adams, 1998). Convergent and divergent validity analyses generally support the validity of the EOMEIS-II, except for substantial overlap between identity diffusion and identity moratorium, again raising the question of whether the EOMEIS-II measures identity diffusion and identity moratorium distinctly or, alternatively, whether those statuses are as distinct as theoretically conceptualized. As for convergent validity, the EOMEIS-II has been looked at compared to the Identity Status Interview (ISI; Marcia, 1964) at least three times, and there was found to be moderate to strong agreement between the instruments (Adams, Ryan, Hoffman, Dobson, & Nielsen, 1985; Adams et al., 1979; Rodman, 1983). A limitation of the EOMEIS-II is that it was normed primarily on a Caucasian sample (Adams, 1998).

Experiences in Close Relationship Scale – Short Form (ECR-S)

The ECR-S (Wei, Russell, Mallinckrodt, & Vogel, 2007) was used to measure the attachment style of the participants (See Appendix D). The ECR-S is a shortened version of the Experiences in Close Relationship Scale Revised (ECR-R; Fraley, Waller, &

Brennan, 2000). The ECR-S measures attachment-related anxiety and attachment-related avoidance. The ECR-R has 36 items, eighteen items each for attachment-related anxiety and attachment-related avoidance, and has been found to be a reliable and valid measure (Fraley et al., 2000). The ECR-S is a twelve item measure, with six items each for attachment-related anxiety and attachment-related avoidance, which was created to be a shortened form of the ECR-R. The twelve items were taken from the ECR-R and were selected through factor analysis of the six items from each subscale that best correlated with the ECR-R (Wei et al., 2007). Over a series of six studies, Wei, Russell, Mallickrodt, and Vogel (2007) found that the ECR-S was not significantly different from the ECR-R and that both of the subscales of attachment-related anxiety and attachment-related avoidance from the ECR-S were not significantly different from the ECR-R. The correlations between the ECR-R and the ECR-S were found to be as high as .94 for attachment-related anxiety and .95 for attachment-related avoidance (Wei et al., 2007). Wei et al. (2007) also completed test-retest reliability and found that there were not significant differences between the ECR-R and ECR-S with correlations for the ECR-S subscales as low as .80 and as high as .89. For the pilot study, the internal consistency was found to be .73 for attachment-related anxiety and .72 for the attachment-related avoidance.

The twelve items on the ECR-S are scored on a seven-point Likert scale ranging from 1-"disagree strongly" to 7-"agree strongly." The subscales can be used to convert the data from continuous data to categorical data by using high and low scores on each subscale. For example, a high score on the anxiety subscale and a low score on the

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avoidant subscale yields a preoccupied attachment. A low score on the anxiety subscale

and a high score on the avoidant subscale leads to a dismissing attachment. High scores

on both subscales is classified as fearful attachment, and low scores on both subscales is

considered secure attachment (Berman et al., 2006). The subscale scores of attachment-

related anxiety and attachment-related avoidance (i.e., continuous level data) on the ECR-

S will serve as the unit of analysis in this study for Research Questions 1 and 2.

Differentiation of Self Inventory-Revised (DSI-R)

The Differentiation of Self Inventory-Revised was created by Skowron and

Schmitt (2003) by updating the Differentiation of Self Inventory (DSI) to better measure

the Fusion with Others (FO) subscale. The three subscales as well as the DSI full scale

were noted to be sound psychometrically, and Skowron and Schmitt (2003) revised the

FO subscale to improve the internal consistency correlations from .57-.74 to .86. The

DSI-R is a widely used instrument to measure differentiation of self and its subscales:

fusion with others, emotional reactivity (ER), "I" position (IP), and emotional cutoff

(EC). The DSI-R is a 46 item measure that is scored on a six-point Likert-type scale that

ranges from 1-"not at all true of me" to 6-"very true of me" (Skowron & Schmitt, 2003).

The FO scale measures the participant's over-involvement with others,

particularly her or his parents, and uncritically assuming their beliefs, values, and

expectations. The ER scale measures the participant's inclination to follow his or her

autonomic emotional responses to outside stimuli. The IP scale assesses the participant

taking more self-guided stances despite external pressure to conform, and the EC scale

reflects the participant's fear of getting close to others and the defense mechanisms that

the participant uses to avoid emotional intimacy. When all of these scales are combined, a total score for the DSI-R is obtained, which was the unit of analysis for Research Questions 1, 2, and 4. The subscales for the DSI-R were utilized in Research Question 3.

The internal consistency has been found to be .92 for the full scale, with subscale reliabilities of .89 (ER), .81 (IP), .82 (EC), and .85 (FO) (Skowron & Schmitt, 2003). The DSI-R also has been found to have the projected relationships with less anxiety, less psychological distress (Skowron & Friedlander, 1998), and higher marital satisfaction (Skowron, 2000). Confirmatory factor analysis also has been completed, which supported the proposed four subfactor structure (Skowron & Friedlander, 1998). For the pilot study, the internal consistency was found to be .92 for the full scale, .89 for ER, .81 for IP, .87 for EC, and .80 for FO, which is similar to what was found by Skowron and Schmitt (2003).

Mood Survey (MS)

The Mood Survey (Underwood & Froming, 1980; see Appendix E) was developed to measure typical mood level by providing information about how happy or sad the individual typically is and how often the mood fluctuates. This data is thought to be able to allow further understanding of the individual's personality because of the substantial impact of mood on personality. Underwood and Froming (1980) created the MS, which is composed of 15 Likert-type items that are measured on a six point scale from 1-"strongly disagree" to 6-"strongly agree," and three items that are measured on a scale of 1-99. These eighteen items compose the two subscales of the MS, which are Level and Reactivity (Underwood & Froming, 1980). The Level subscale is composed

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of eight items, the Reactivity subscale is composed of seven items, and there are three intensity items. There is not a total score for the MS, and the Level subscale will be used in this study as the unit of analysis for Research Questions 1, 2, and 4. For the MS, lower scores are associated with being sad and higher scores are associated with being happy, and the assessment is intended to measure a continuum of affect from sad to happy (Underwood & Froming, 1980). The Mood Survey was chosen to measure mood in this study because the author reviewed several mood assessments including the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, Erbaugh, 1961), State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983), and the Symptom Checklist 90-Revised (SCL-90-R; Derogatis, 1994) and determined that the MS best fit the definition of mood [an individual's general orientation towards time (i.e. hopeful, anxious, excited, happy, depressed, angry, etc.) (E. Eisenberg, personal communication, June 8, 2012)].

Evidence of test-retest reliability exists for the MS. Underwood and Froming (1980) found three-week test-retest reliability of .80 for Level and .85 for Reactivity and seven-week test-retest reliability of .63 and .83, respectively. Concurrent validity for the MS was also explored with the Beck Depression Inventory (BDI), and the Level subscale of the MS was found to be significantly correlated (r = .47; p < .001) with the BDI. The internal consistency for the Level subscale of the MS found in the pilot study was .87.

Interpersonal Communication Inventory (ICI)

To assess communication as defined in this study [an individual's interpersonal approach in terms of the openness and defensiveness to others' worldviews (E. Eisenberg,

personal communication, June 8, 2012)], several measures of communication, openness, and defensiveness were examined including the NEO Personality Inventory-Revised (NEO-PI; Piedmont, 1998), the Interpersonal Communication Inventory (ICI; Bienvenu, 1971), and the Communication Openness Measure (COM; Rogers, 1987). It was determined that communication, as defined in this study, is based on considering others' worldviews and disclosing and expressing self-perceptions, and the researcher determined that the ICI (see Appendix F) most closely approximated the construct of communication as defined in this study.

Millard Bienvenu, Sr. created the ICI to "identify patterns, characteristics, and styles of communication" (1971, p. 383). The ICI was first published in 1971 with 50 items and was revised to 40 items by 1974 (Pfeiffer & Jones, 1974). A factor analysis was completed in 1976 in which the researchers found 11 factors within the 40 items (Beinvenu & Stewart, 1976). The internal consistency for the measure has been reported as .78 (Herzog & Cooney, 2002) and .93 (Vealey, Armstrong, Comar, & Greenleaf, 1998). The internal consistency found through the current pilot study was .89. The responses are yes (usually), no (seldom), and sometimes and are scored according to the scoring criteria developed by Bienvenu (1971).

Personal Power and Possibility Scale (PPPS)

To assess personal narrative, the Self-Efficacy Scale (SES; Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs, & Rogers, 1982), the General Self-Efficacy Scale (GSE; Schwarzer & Jerusalem, 1995), and the Multidimensional Locus of Control Scale (MLoCS; Levenson, 1973) were considered and examined. While none of these

instruments measure the construct of personal narrative as used in this study [an individual's ongoing authorship and editing of her or his life story and the perception of power and possibility of the individual as well as the individual's openness to change (E. Eisenberg, personal communication, June 8, 2012)], items from these instruments do assess part of the personal narrative construct. Therefore, the researcher constructed the Personal Power and Possibility Scale (PPPS) to measure personal narrative for this study. The PPPS is created of items similar to items on the SES and MLoCS but that more accurately assess personal narrative.

The first version of the PPPS was drafted with 17 items after discussing the measure with the dissertation chair and the cognate dissertation committee member. The first draft was then shown to the dissertation chair and the other Counseling and Educational Development (CED) dissertation committee member and the Educational Research Methodology dissertation committee member. The PPPS was then edited, and the face validity and the language of the items was discussed with two other CED faculty members, and further edits were completed including changing the word "feel" to "believe" on three items to more accurately measure the personal narrative construct and to remain consistent in the wording of the items. The PPPS was then discussed again with the cognate dissertation committee member, and three additional items were added to better account for the narrative authorship aspect of personal narrative. The result was that the final version of the PPPS is composed of 21 Likert-scale items for the pilot study (See Appendix G). The internal consistency of this measure in the pilot study was .84.

Procedures

Prior to the study, the researcher gained full approval from Institutional Review Board (IRB) of The University of North Carolina at Greensboro. The researcher contacted instructors in multiple departments at a mid-sized public university in central North Carolina to obtain participants for this study. Each identified instructor received an email regarding the study and asking for class time to recruit participants. Then, the researcher attended those classes for which the instructor gives permission for recruitment and explained the purpose of the study and the voluntary nature of participation to possible participants. The researcher told potential participants that the participants need to be 18-25 years old, that their participation would take approximately 30 minutes, and that their responses would be anonymous. The researcher provided the participants with a consent form. The researcher provided the participants with the survey packet consisting of the demographic questionnaire, EOMEIS-II, ECR-S, DSI-R, MS, ICI, and Personal Narrative Measure. Depending on the preference of the course instructor, the participants were either given class time to complete the survey packet or were asked to complete it outside of class time and were instructed to return the survey packet and consent form to the researcher's mailbox in the Curry Building. The survey packets consist of 196 items and will take approximately 30 minutes to complete. The researcher was available to answer questions for the participants in person and via email. Participants were given the option to be eligible to enter a drawing for five Amazon gift certificates worth thirty dollars ($30) each. If they elected to enter into the drawing, they provided their names and email address on a sheet of paper kept separate from the data.

The researcher completed this procedure with a total of 21 classes to recruit participants. A few professors (6) provided class time for participants to fill out the survey packet, though in most instances the professors (15) asked the participants to fill out the information and return it to the researcher.

Data Analysis

To evaluate Research Question 1, Pearson product moment correlations were used to determine the bivariate correlations among the variables of identity statuses as measured by scores on the EOMEIS-II, mood level as measured by the Level subscale on the MS, personal narrative as measured by the PPPS, communication as measured by the ICI, attachment-related anxiety as measured by the ECR-S, attachment-related avoidance as measured by the ECR-S, and differentiation of self as measured by the total score of the DSI-R. See Table 1 for descriptions of the research questions and data analyses.

For Research Question 2, four multiple linear regressions were used to examine the variance explained by mood level as measured by the Level subscale on the MS, personal narrative as measured by the PPPS, communication as measured by the ICI, attachment-related anxiety as measured by the ECR-S, attachment-related avoidance as measured by the ECR-S, and differentiation of self as measured by the DSI-R total score have on predicting identity status. The six predictors (mood level, personal narrative, communication, attachment-related anxiety, attachment-related avoidance, and differentiation of self) were the independent variables and identity status as measured by the EOMEIS-II were the dependent variable. Four linear regression functions were created, one for each identity status.

To investigate Research Question 3, an Analysis of Variance (ANOVA) was completed with biological sex (male or female) as the independent variable and the subscales of the DIS-R (emotional cutoff [EC], emotional reactivity [ER], "I" position [IP], and fusion with others [FO]) as the dependent variables. Each dependent variable was separately investigated, which therefore yielded four separate conclusions for this research question.

In Research Question 4, eight multiple linear regressions were completed to observe the variance explained by the Level subscale on the MS, personal narrative as measured by the PPPS, communication as measured by the ICI, attachment-related anxiety as measured by the ECR-S, attachment-related avoidance as measured by the ECR-S, and differentiation of self as measured by the DSI-R total score of men and of women. The participants were separated by biological sex, and multiple linear regression analysis were completed for men and for women. Since the regressions were completed for each of the four identity statuses, there were a total of eight linear regressions completed to investigate this research question. The dependent variable for Research Question 4 was the identity status as measured by the EOMEIS-II.

Pilot Study

Table 1

Research Questions, Variables, and Data Analysis

Research Question	Hypothesis	Variables	Analysis
RQ 1: What are the bivariate relationships among mood, personal narrative, communication, attachment-related anxiety, attachment-related avoidance, differentiation of self, and identity status among a college sample of emerging adults aged 18-25?	*Hypothesis 1*: Statistically significant correlations will be found between mood level, personal narrative, communication, attachment-related anxiety, attachment-related avoidance, level of differentiation, and identity status such that there will be positive correlations between mood level, personal narrative, communication, differentiation of self, and identity status and negative correlations between attachment-related anxiety and attachment-related avoidance with mood, personal narrative, communication, differentiation of self, and identity status.	Mood Level (MS Level subscale), personal narrative (PPPS), communication (ICI), attachment related anxiety (ECR-S subscale), attachment-related avoidance (ECR-S subscale), differentiation of self (DSI-R total score), and identity status (categorical EOMEIS-II)	Pearson product moment correlations
RQ 2: What effect do mood, personal narrative, communication, attachment-related anxiety, attachment-related avoidance, and differentiation of self have on the prediction of identity status?	*Hypothesis 2:* A statistically significant portion of variance of identity status will be explained by mood level, personal narrative, communication, attachment-related anxiety, attachment-related avoidance, and differentiation of self.	Mood Level (MS Level subscale), personal narrative (PPPS), communication (ICI), attachment related anxiety (ECR-S subscale), attachment-related avoidance (ECR-S subscale), differentiation of self (DSI-R total score), and each identity status (continuous EOMEIS-II)	4 Linear Regressions (SPSS)

Table 1

Research Questions, Variables, and Data Analysis (continued)

Research Question	Hypothesis	Variables	Analysis
RQ 3: Does biological sex have an effect on differentiation of self?	*Hypothesis 3*: A statistically significant difference between men and women will be found in the subscales of emotional cutoff (males statistically higher than females) and emotional reactivity (females statistically higher than males), and there will not be a statistically significant difference found between men and women on the subscale scores of I-position and fusion with others.	Biological sex (demographic form), emotional cutoff (DSI-R), emotional reactivity (DSI-R), "I" position (DSI-R), and fusion with others (DSI-R)	ANOVA
RQ 4: Is it important to predict identity status separately for each biological sex?	*Hypothesis 4:* Separate linear regressions for men and women would better predict identity status than using one linear regression of men and women combined to predict identity status.	Mood Level (MS Level subscale), personal narrative (PPPS), communication (ICI), attachment related anxiety (ECR-S subscale), attachment-related avoidance (ECR-S subscale), differentiation of self (DSI-R total score), each identity status (continuous EOMEIS-II), and biological sex (demographic form)	8 Linear Regressions (SPSS)

To evaluate the proposed procedures of the full dissertation study, a pilot study was conducted. Because this study is proposing a new prediction model for identity status with new constructs based on Eisenberg's (2001) Identity Process Model, the pilot

study was an important preliminary step before completing the full study. There were two main goals of the pilot study: to test the procedures and to find the reliability information of the PPPS. This section details the participants, instrumentation, procedures, findings, and a discussion of the implications of the pilot study on the full study.

Research Questions and Hypotheses

The purpose of the pilot study was to examine the relationships between the variables of identity status, attachment-related anxiety, attachment-related avoidance, differentiation of self, mood, communication, and personal narrative as well as the prediction of identity status from the other variables. The researcher used the same research questions and hypotheses for the full study in the analysis of the pilot study. The full report and findings are provided in Appendix O.

Participants

The participants of the pilot study included 33 undergraduate students from two different counseling courses at a mid-sized university in central North Carolina. There were 36 individuals in the classrooms, and three did not participate because they did not meet the age inclusion criteria for the study. Therefore, the pilot study had a 100% response rate. The majority of the participants were female ($n = 29$, 88%). The mean age was 21.1 years old with a range from 18 to 25 years old. Complete demographic information related to the sample is reported in Appendix O.

Instrumentation

Each pilot study participant completed a survey packet consisting of the EOMEIS-II, DSI-R, ECRS, Level scale of the MS, ICI, PPPS, a demographic questionnaire, and a feedback form for the procedures of the pilot study. A detailed description of the number of items and the scoring of each measure is provided in Table 2. Additional descriptive statistics pertaining to the instruments, including Cronbach's alpha levels, are presented in Appendix O.

Procedures

After obtaining approval from the Institutional Review Board at The University of North Carolina of Greensboro, a request was sent out to two instructors within the counseling department inquiring if the researcher could request participants to complete the pilot study in the instructors' classes. After permission was received, the researcher arrived during the scheduled class times of the two classes to invite students to participate in the pilot study. The researcher distributed informed consent forms that provided information about the purpose, risks, and voluntary nature of participation in the pilot study to the students. The researcher also read a verbal script that described the purpose of the study and the voluntary nature of participation. The researcher asked for questions and provided answers related to participation in the study. The researcher then collected the informed consent forms for participants and passed out the survey packet. The participants were instructed to not write their names on the survey packets.

All eligible students in both classes decided to participate in the pilot study. There were 15 participants in one class and 18 participants in the other class. In both

classes, the first participant to finish completed the survey packet in 17 minutes, and the last person to finish in the first class finished in 33 minutes and in the second class finished in about 38 minutes. The median time to completion was 22 minutes.

Data Analysis and Results

In order to examine the research questions and hypotheses of the full study, data analyses were completed even though the sample size was too small for meaningful results. Complete results of the data analyses of the pilot study are provided in Appendix O. In order to obtain reliability information on the newly constructed inventory, reliability analyses were completed for the PPPS scale. The Cronbach's alpha was found to be .84 for the scale with all 21 items. Further analysis was completed to see if any item should be removed from the PPPS because of low item correlation with the overall scale. Based on this, item 13 "When people describe me different than the way I see myself, I am open to consider their perspective," was deleted, and the Cronbach's alpha for the remaining 20 items was .85. This was completed two more times with the next two items that would improve the reliability of the PPPS the most, items 4 and 7 respectively, and Cronbach's alpha increased to .86. The researcher determined that all items would be included in the full study and reliability analyses would be repeated to determine if any items should be removed from the PPPS before running further analysis of the correlation between the PPPS and other variables as well as the prediction of the PPPS on identity status.

Table 2

Item Numbers and Scoring of Survey Packet Instrumentation

Measure	Items	Scoring
Extended Objective Measure of Ego Identity Status – II (EOMEIS-II)	64	1 score for each of the 4 identity statuses (Identity Diffusion, Identity Foreclosure, Identity Moratorium, and Identity Achievement)
Experiences in Close Relationships – Short Form (ECRS)	12	2 subscales (attachment-related anxiety and attachment-related avoidance)
Differentiation of Self – Revised (DSI-R)	46	4 subscales and 1 total score composed of a sum of the subscales
Level subscale of the Mood Survey (MS)	8	1 score
Interpersonal Communication Inventory (ICI)	40	1 total score
Personal Power and Possibility Scale (PPPS)	21	1 total score
Demographic Questionnaire	5	
Pilot Study Feedback Form	4	

Discussion and Implications for Full Study

The pilot study informed one main change for the full study. Two individuals provided feedback that the numbering for the items was a little confusing. Specifically, one stated that the survey packet was clear on the instructions but that "the number scale tripped me up since it changed from section to section." Therefore, the survey packet will be modified so that the scale for the instrument will be listed at the top of each page.

After the analysis of the PPPS was completed, it was determined that the scale has acceptable reliability (Cronbach's alpha = .84), and all 21 items will be utilized in the full scale for the PPPS. Subsequent reliability analysis of the PPPS was repeated for the full study.

The estimated time of completing the survey packet was 30 minutes, and that estimated time was not altered after pilot study testing. This was determined because the first person to finish on both of the administrations of the survey packet completed the instrument in 17 minutes, the median person in both administrations finished in approximately 22 minutes, and the longest time to completion was 38 minutes.

Limitations

As with all research, there are limitations to the current study. The a priori limitations to the study regard the sampling of participants and the nature of the data. Specifically, this study is only using emerging adult college students and is not using any emerging adults who are not college students. Therefore, the findings for this study may not generalize to emerging adults who have not gone to college or who are not currently in college. Also, this study is utilizing a convenience sample of college students, and the

participants in the study may be different from the non-respondents in the study. It is

unknown what, if any, differences there are between the participants and those who chose

not to participate. Beyond sampling issues, the study is utilizing cross-sectional data,

which presents limitations. Notably, cross-sectional data on a developmental concept

may be limited in utility and may not portray the entire picture. While the instruments

used in this study are routinely used in collecting cross-sectional data, it would be helpful

to complete longitudinal studies with these measures to see if the predictors have a

similar relationship to identity status across different time points and if there are

predictors that are able to significantly predict future changes in identity status.

CHAPTER IV

RESULTS

This study was an investigation of the ability to predict identity status by attachment-related anxiety, attachment-related avoidance, differentiation of self, communication, mood, personal narrative, and biological sex and to examine the relationships among the variables. The present chapter describes the demographic characteristics of the sample, the item analysis of the PPPS, the correlation coefficients for the assessments used in the study, and the results of the analyses completed to test the research hypotheses.

Description of the Sample

The researcher went into a total of 21 different classes from 9 different academic departments to recruit participants for the study. A total of 350 survey packets were distributed to students, and 134 survey packets were returned to the researcher. All 134 participants met the criteria for inclusion based on age and status as an undergraduate student, although 1 survey had a significant number of missing items and was removed from analysis. Therefore, 133 participants are included in the sample, and the demographic information is included in Table 3.

Table 3

Demographic Data of the Study Sample (N=133)

Variable	M/SD	*n*	%
AGE	20.4/1.63		
BIOLOGICAL SEX			
Female		105	73.3
Male		28	26.7
RACE*			
African American or Black		38	28.1
American Indian or Alaska		4	3.0
Native			
Asian American		6	4.4
European American or White		76	56.3
Hispanic		7	5.2
Native Hawaiian or Pacific		1	0.7
Islander			
Other		3	2.2
GREEK STATUS			
Never		121	91.0
Not currently Greek		4	3.0
Currently Greek		8	6.0

Table 3

Demographic Data of the Study Sample (continued)

Variable	M/SD	*n*	%
YEAR			
Freshman		29	21.8
Sophomore		31	23.3
Junior		39	29.3
Senior		31	23.3
Post-Baccalaureate		3	2.3
EVER BEEN IN A			
COMMITTED			
RELATIONSHIP			
Yes		107	81.7
No		24	18.3
RELATIONSHIP STATUS			
Single		67	50.4
Dating (< 3 months)		6	4.5
Committed Relationship (>3		57	42.9
mos)			
Married		3	2.3

Table 3

Demographic Data of the Study Sample (continued)

Variable	M/SD	*n*	%
IMPORTANCE OF	3.25/1.46		
ORGANIZED RELIGION			
FREQUENCY OF RELIGIOUS			
ACTIVITIES			
Daily		7	52.6
Weekly		44	33.1
A couple of times a month		27	20.3
A few times a year		17	12.8
Rarely		21	15.8
Never		17	12.8
ATHLETIC INVOLVEMENT			
None		77	58.3
Recreational or Intramural		46	34.8
Club		4	3.0
Collegiate		5	3.8

* Some participants decided not to answer the question, and some participants entered 2 or more races.

The full study sample was mostly female (*n* = 105, 73.3%) and European American or White (*n* = 76, 56.3%), although there was a substantial portion of African American or Black participants in the sample (*n* = 38, 28.1%). The sample had a similar

amount of students across academic years (21.8%, 23.3%, 29.3%, and 23.3%, for freshman, sophomores, juniors, and seniors, respectively), and 34 different majors were represented in the sample; an additional 11 participants said that they were undecided. Also, there were 6 sexual orientations reported, at least 7 races, all academic years, and every age in the emerging adult demographic (18-25) represented in the sample.

Item Analysis of PPPS

The PPPS was first analyzed to find the alpha coefficient to determine the reliability for the full scale of the PPPS. When the item analysis was completed, the full scale alpha of the PPPS was found to be .85, which was similar to the pilot study (.84). The item analysis included looking at what the alpha coefficient would be if an item was removed. Item 13 ("When people describe me different than the way that I see myself, I am open to consider their perspective.") was deleted, and the alpha coefficient rose to .86. Another item was deleted (Item 14: "My life is controlled by random occurrences.") was also deleted, and the alpha coefficient increased again to .864. Removing more items would not significantly raise the alpha coefficient for the PPPS, so items 13 and 14 were removed from the PPPS, which left 19 items to be utilized in further analyses.

Descriptive Statistics of Instruments

Each participant completed survey packets composed of the EOMEIS, ECR-S, DSI-R, Level Subscale of the MS, ICI, PPPS, and Demographic Questionnaire. Mean scores, standard deviations, and alpha coefficients were calculated, and the descriptive statistics for each of the instruments/scales are provided in Table 4.

Table 4

Descriptive Statistics for Study Instruments

Instrument/Subscale	M	SD	α	# of items
ID	43.65	10.96	.74	16
IF	39.32	13.75	.83	16
IM	49.66	10.72	.72	16
IA	65.94	13.73	.73	16
Attachment-Related Anxiety	22.13	6.89	.74	6
Attachment-Related Avoidance	16.23	6.64	.79	6
DSI-R	171.19	29.53	.91	46
IP	45.47	8.79	.78	11
EC	51.27	10.64	.84	12
ER	35.53	11.17	.88	11
FO	38.91	9.16	.74	12
MS	34.65	7.35	.87	8
ICI	81.53	16.46	.86	40
PPPS	76.80	11.05	.86	19

ID = Identity Diffusion; IF = Identity Foreclosure; IM = Identity Moratorium; IA = Identity Achievement; DSI-R = Differentiation of Self Inventory – Revised; IP = I Position; EC = Emotional Cutoff; ER = Emotional Reactivity; FO = Fusion with Others; MS = Mood Survey; ICI = Interpersonal Communication Inventory; PPPS = Personal Power and Possibility Scale

Half of the instruments/scales had reliability over .80, and the other half had reliability between .72 and .78. All instruments were determined to have adequate reliability to continue the analyses of the study as all alpha coefficients were above .70, which is the commonly recommended level for social science research (Heppner & Heppner, 2004).

Research Hypothesis One

The first research hypothesis investigated the relationships between the variables of interest in the study. It was hypothesized that there would be significant correlations between mood level, personal narrative, communication, attachment-related anxiety, attachment-related avoidance, level of differentiation, and identity status such that there would be positive correlations between mood level, personal narrative, communication, differentiation of self, and identity status and negative correlations between attachment-related anxiety and attachment-related avoidance with mood, personal narrative, communication, differentiation of self, and identity status. This was analyzed by creating a correlation matrix with Pearson Product Moment Correlations (Table 5).

Of the 45 Pearson correlation bivariate relationships among the variables in this study, 32 bivariate relationships were significant at the .05 level, and 21 of those also were significant at the .01 level. Among the identity statuses, identity diffusion and identity achievement had statistically significant relationships with all of the other variables except two.

Table 5

Pearson Product Moment Correlation Matrix of Identity Status, Attachment, Differentiation, Mood, Communication, and Personal Narrative

	ID	IF	IM	IA	A-R Anxiety	A-R Avoidance	DIF	Mood Level	COM	PN
ID	*.74*	.17*	.46*	-.13	.18*	.42*	-.05	-.15*	-.14*	-.33*
IF	.03	*.83*	.06	.17*	.11	.18*	.07	.29*	.13	-.07
IM	.21	.00	*.72*	.15*	.41*	.32*	-.22*	.00	-.09	-.01
IA	.02	.03	.02	*.73*	.04	-.18*	.22*	.41*	.22*	.37*
A-R Anxiety	.03	.01	.17	.00	*.74*	.13	-.50*	-.27*	-.36*	-.23*
A-R Avoidance	.18	.03	.10	.03	.02	*.79*	-.18*	-.09	-.16*	-.18*
DIF	.00	.00	.05	.05	.25	.03	*.91*	.50*	.67*	.48*
Mood Level	.02	.08	.00	.17	.07	.01	.25	*.87*	.54*	.49*
COM	.02	.02	.01	.05	.13	.03	.45	.29	*.86*	.53*
PN	.11	.00	.00	.14	.05	.03	.23	.24	.28	*.86*

ID = Identity Diffusion; IF = Identity Foreclosure; IM = Identity Moratorium; IA = Identity Achievement; A-R Anxiety = Attachment-Related Anxiety; A-R Avoidance = Attachment-Related Avoidance; DIF = Differentiation; COM = Communication; PN = Personal Narrative
Correlations are above the diagonal; Alpha coefficients are on the diagonal; Variance explained (R^2) are below the diagonal
* Significant at $p < .05$ (1-tailed)

Of note, identity achievement had moderate to strong relationships with mood level (r = .41, p < .01) and personal narrative (r = .37, p < .01), and identity diffusion had moderate to strong relationships with attachment-related avoidance (r = .42, p < .01) and personal

narrative (r = -.33, p < .01). Identity foreclosure had statistically significant relationships

with attachment-related avoidance (r = .18, p < .05) and mood level (r = .29, p < .01).

Identity moratorium had significant relationships with attachment-related anxiety (r = .41,

p < .01), attachment-related avoidance (r = .32, p < .01), and differentiation of self (r = -

.22, p < .01). These relationships were in the anticipated direction and consistent with

previous research findings. Also, it is important to note the relationships between the

proposed predictor variables (attachment-related anxiety, attachment-related avoidance,

differentiation of self, mood level, communication, and personal narrative). As these

variables are proposed to work together to predict identity status, multicollinearity could

be a complicating factor if the predictors were highly correlated with each other. While

there were a number of statistically significant correlations between the predictors, these

correlations were not of such a magnitude to suggest that multicollinearity would

significantly impact the regression models. The strongest relationship was between

differentiation of self and communication (r = .67, p < .01), and the next strongest

relationship was between communication and personal narrative (r = .53, p < .01).

Therefore, overall the first research hypothesis is supported.

Research Hypothesis Two

The second research hypothesis, that a statistically significant portion of variance

of identity status would be explained by mood level, personal narrative, communication,

attachment-related anxiety, attachment-related avoidance, and differentiation of self, was

investigated using four linear multiple regressions. The full results of the analysis are

reported in Table 6. Overall, the prediction models utilizing all variable were found to be

significant for each identity status at $p < .001$.

Table 6

Identity Statuses Explained by All Predictors of Attachment, Differentiation, Mood, Communication, and Personal Narrative

Variable	B	SE B	F	R^2	P
ID			9.017	.30	<.001
A-R Anxiety	.300	.189*			
A-R Avoidance	.638	.387*			
Differentiation	.114	.307*			
Mood Level	-.068	-.046			
Communication	-.014	-.021			
PN	-.330	-.332*			
IF			5.438	.21	<.001
A-R Anxiety	.405	.203*			
A-R Avoidance	.342	.165*			
Differentiation	.029	.062			
Mood Level	.753	.402*			
Communication	.099	.119			
PN	-.355	-.286*			
IM			7.767	.27	<.001
A-R Anxiety	.600	.385*			
A-R Avoidance	.462	.286*			
Differentiation	-.043	-.118			
Mood Level	.136	.093			
Communication	.038	.058			
PN	.119	.122			
IA			7.312	.26	<.001
A-R Anxiety	.429	.215*			
A-R Avoidance	-.282	-.137			
Differentiation	.037	.080			
Mood Level	.647	.346*			
Communication	-.068	-.081			
PN	.283	.228*			

ID = Identity Diffusion; IF = Identity Foreclosure; IM = Identity Moratorium; IA = Identity Achievement; A-R Anxiety = Attachment-Related Anxiety; A-R Avoidance = Attachment-Related Avoidance; PN = Personal Narrative; * Significant at $p < .05$ (1-tailed)

Identity diffusion had the most variance explained by the predictors ($R^2 = .30$, $F_{6, 126} = 9.017$), and identity foreclosure had the least variance explained ($R^2 = .21$, $F_{6, 126} = 5.438$) when using all predictors.

Backward selection was utilized to examine if using fewer predictors better predicts and accounts for the variance in each identity status. The full information from these analyses is listed in Table 7. For identity diffusion, the regression with attachment-related anxiety, attachment-related avoidance, differentiation of self, and personal narrative had a slightly better model fit ($R^2 = .30$, $F_{4, 128} = 13.618$, $p < .001$) than the full model ($R^2 = .30$, $F_{6, 126} = 9.017$, $p < .001$). For identity foreclosure, the regression model with attachment-related avoidance, mood level, and personal narrative had a higher model fit ($R^2 = .17$, $F_{3,129} = 8.754$, $p < .001$) than the full model ($R^2 = .21$, $F_{6, 126} = 5.438$, $p < .001$). For identity moratorium, the regression model with attachment-related anxiety and attachment-related avoidance had a higher F-value ($R^2 = .24$, $F_{2, 130} = 20.408$, $p < .001$) than the full regression model ($R^2 = .27$, $F_{6, 126} = 7.767$, $p < .001$). For identity achievement, the regression model with attachment-related anxiety, mood level, and personal narrative had a higher model fit ($R^2 = .24$, $F_{3, 129} = 13.281$, $p < .001$) than the full regression model ($R^2 = .26$, $F_{6, 126} = 7.312$, $p < .001$). However, there is a tradeoff for using the reduced models; by using these models without all of the predictors, there are slight decreases in the variance explained of identity status as variables are removed from the regression. Regardless of using the full regression model with all predictors or if using the reduced models using only the most significant variables as determined by backward selection, research hypothesis two was supported.

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Table 7

Identity Statuses Explained by Predictors Determined by Using Backward Selection

Variable	B	SE B	F	R^2	p
ID			13.618	.30	<.001
A-R Anxiety	.305	.191*			
A-R Avoidance	.636	.385*			
Differentiation	.104	.281*			
PN	-.350	-.353*			
IF			8.754	.17	<.001
A-R Avoidance	.336	.162*			
Mood Level	.768	.410*			
PN	-.347	-.278*			
IM			7.767	.27	<.001
A-R Anxiety	.580	.372*			
A-R Avoidance	.437	.271*			
IA			13.281	.24	<.001
A-R Anxiety	.375	.188*			
Mood Level	.632	.338*			
PN	.304	.245*			

ID = Identity Diffusion; IF = Identity Foreclosure; IM = Identity Moratorium; IA = Identity Achievement; A-R Anxiety = Attachment-Related Anxiety; A-R Avoidance = Attachment-Related Avoidance; PN = Personal Narrative
* Significant at $p < .05$ (1-tailed)

Research Hypothesis Three

For the third research hypothesis (that a statistically significant difference between men and women would be found in the subscales of emotional cutoff [males statistically higher than females] and emotional reactivity [females statistically higher than males], and there would not be a statistically significant difference found between men and women on the subscale scores of I-position and fusion with others), an Analysis of Variance (ANOVA) was completed (see Table 8). There were significant differences found between men and women but the differences were not as hypothesized.

Differences were found between women and men on fusion with others ($F_{1, 131} = 4.431$, p

< .05) and emotional reactivity ($F_{1, 131} = 12.642$, p < .01) instead of the hypothesized

emotional cutoff and emotional reactivity. Therefore, the hypothesis was partly

supported as it was hypothesized that there would be no difference between men and

women on the I-position and that there would be difference between men and women on

emotional reactivity. However, it was hypothesized that women would score higher than

men on emotional reactivity, but in this sample men scored higher than women (see

Table 9). As there was a small number of men in this study (n = 28), this analysis should

be treated with extreme caution in interpreting the results.

Table 8

ANOVA Results for Differences Between Men and Women on the Subscales of
Differentiation of Self

Variable	F	df_1	df_2	p
I Position	3.708	1	131	.06
Emotional Cutoff	1.321	1	131	.25
Emotional Reactivity	12.642	1	131	<.01
Fusion with Others	4.431	1	131	.04

The means and standard deviations for the subscales of differentiation of self of

women and men are displayed in Table 9.

Table 9

Means and Standard Deviations for Men and Women on the Subscales of Differentiation of Self

Variable	Women Mean	Women SD	Men Mean	Men SD
I Position	44.72	8.930	48.29	7.736
Emotional Cutoff	50.72	10.547	53.32	10.934
Emotional Reactivity	33.83	10.641	41.93	10.974
Fusion with Others	38.06	8.560	42.11	10.716

Research Hypothesis Four

For the last research hypothesis (that using different linear regressions for men and women would better predict identity status than using one linear regression of men and women combined to predict identity status), eight linear multiple regressions were completed. The standardized and unstandardized beta weights, F-scores, amount of variance explained (R^2), and significance testing is presented in Table 10.

Table 10

Identity Statuses of Women and Men Explained by Predictors of Attachment, Differentiation, Mood, Communication, and Personal Narrative

Variable	B	SE B	F	R^2	P
ID – (Women)			7.338	.31	<.001
A-R Anxiety	.267	.170			
A-R Avoidance	.641	.413			
Differentiation	.076	.195			
Mood Level	.101	.070			
Communication	-.036	-.056			
PN	-.318	-.324			
ID – (Men)			.856	.20	.542
A-R Anxiety	.040	.028			
A-R Avoidance	.396	.208			
Differentiation	.076	.250			
Mood Level	-.495	-.338			
Communication	-.051	-.076			
PN	-.150	-.167			
IF – (Women)			6.148	.27	<.001
A-R Anxiety	.337	.166			
A-R Avoidance	.476	.237			
Differentiation	.037	.072			
Mood Level	.891	.476			
Communication	.083	.099			
PN	-.348	-.273			
IF – (Men)			.703	.17	.651
A-R Anxiety	.322	.181			
A-R Avoidance	-.499	-.211			
Differentiation	-.072	-.191			
Mood Level	.107	.059			
Communication	.072	.087			
PN	-.210	-.188			

Table 10

Identity Statuses of Women and Men Explained by Predictors … (continued)

Variable	B	SE B	F	R^2	P
IM – (Women)			7.925	.33	<.001
A-R Anxiety	.718	.452			
A-R Avoidance	.488	.311			
Differentiation	-.012	-.031			
Mood Level	.120	.082			
Communication	.010	.015			
PN	.151	.152			
IM – (Men)			.204	.20	.514
A-R Anxiety	-.056	-.039			
A-R Avoidance	.160	.084			
Differentiation	-.273	-.904			
Mood Level	.084	.058			
Communication	.342	.513			
PN	.225	.251			
IA – (Women)			6.276	.28	<.001
A-R Anxiety	.504	.248			
A-R Avoidance	-.203	-.101			
Differentiation	.086	.169			
Mood Level	.696	.372			
Communication	-.087	-.104			
PN	.241	.189			
IA – (Men)			1.838	.34	.14
A-R Anxiety	-.086	-.048			
A-R Avoidance	-.684	-.287			
Differentiation	-.243	-.640			
Mood Level	.166	.090			
Communication	.220	.263			
PN	.666	.590			

ID = Identity Diffusion; IF = Identity Foreclosure; IM = Identity Moratorium; IA = Identity Achievement; A-R Anxiety = Attachment-Related Anxiety; A-R Avoidance = Attachment-Related Avoidance; PN = Personal Narrative

All of the linear regressions for women were found to be significant at $p < .001$, and all of the linear regressions for men were found to be not statistically significant at $p < .05$. However, the study sample has a disproportionate amount of men and women

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with much fewer men than women, which somewhat explains the differences in the significance for the linear regressions for men and women. Though the linear regressions for men were found to be not statistically significant, each of the linear regressions explained 17% of the variance or higher. The identity achievement linear regression for men explained 34% of the variance, which was more variance than the linear regression for all participants (26%). However, this was the only linear regression for men alone that had more variance explained than the linear regressions for all participants. On the other hand, all of the linear regressions for women explained more variance than the linear regressions for all participants (See Table 11). For five of the eight linear regressions, the amount of variance explained was greater for looking at the biological sexes separately than looking at them combined.

While examining the variance explained is important in addressing this research question, the standardized and unstandardized beta weights also provided useful information. Examination of the beta weights and the amount of variance explained also reveals differences between the regressions for women and men. Specifically, the largest standardized beta weights for each identity status are different for women and for men. For example, mood level and differentiation of self are the two variables that most substantially predict identity diffusion in men, but attachment-related avoidance and personal narrative best predict identity diffusion in women (see Tables 10 and 11). The variables that have the strongest prediction of identity status when men and women are combined are exactly the same as the ones for women except that for identity diffusion the combination of men and women also has differentiation above .250. None of the

identity statuses have the same predictors with a standard beta weight above .250 for men and women (see Table 11). Based on this, the significant predictor variables for men and women based on standardized beta weights seem to support the hypothesis that biological sex is important to consider in predicting identity status.

There is also a quantitative way to see if there are significant differences in the predictor variables between men and women. Fisher's z scores can be calculated based on the difference between the predictor variables that were found to be significant to see if there are significant differences in how the variable impacts men and women. The Fisher's z scores and associated zero-order correlation coefficients for the statistically significant predictor variables are displayed in Table 12. The z_{crit} for this calculation is 2.576, which was taken from a starting $p < .05$ and then adjusted using a Bonferroni correction to $p < .005$ as 9 calculations were completed based on the nine significant predictors taken from the linear regression equations. The Fisher's z scores were calculated by using the equation:

$$\text{Fisher's z} = (r1 - r2) / (\text{sqrt} [(1/(N1\text{-}3)*(1/(N2\text{-}3))])$$

The results showed that all nine variables are significantly different for women and men. Therefore, the differences in the zero-order correlation coefficients when converted to Fisher's z also support research hypothesis four.

Table 11

Variance Explained and Strongest Standardized Beta Weights for Men, Women, and
All Participants

	Variance Explained (R^2)			Standardized Beta Weights At or Above .250		
	Men	Women	All	Men	Women	Combined
ID	.20	.31	.30	Mood and Differentiation	Attachment-Related Avoidance and Personal Narrative	Attachment-Related Avoidance, Personal Narrative, and Differentiation
IF	.17	.27	.21	None*	Mood and Personal Narrative	Mood and Personal Narrative
IM	.20	.33	.27	Differentiation, Communication, and Personal Narrative	Attachment-Related Anxiety and Avoidance	Attachment-Related Anxiety and Avoidance
IA	.34	.28	.26	Differentiation, Personal Narrative, Attachment-Related Avoidance, and Communication	Mood	Mood

ID = Identity Diffusion; IF = Identity Foreclosure; IM = Identity Moratorium; IA = Identity Achievement
* No standardized beta weights were above .250 (Highest standardized beta weight was Attachment-Related Avoidance at .211)

Table 12

Zero-Order Correlation Coefficients and Computed Fisher's z Scores for
Significant Predictor Variables

Identity Status	Variable	Men	Women	Fisher's Z score* *(all significant at p < .005)
ID	A-R Avoidance	.237	.453	-10.907
	Personal Narrative	-.223	-.335	5.656
IF	A-R Avoidance	-.176	.228	-20.401
	Mood	-.084	.370	-22.926
	Personal Narrative	-.226	-.021	-10.352
IM	A-R Anxiety	.205	.456	-12.675
	A-R Avoidance	.085	.362	-13.988
IA	A-R Anxiety	.131	.026	5.302
	Mood	.221	.443	-11.210

ID = Identity Diffusion; IF = Identity Foreclosure; IM = Identity Moratorium; IA = Identity Achievement;
A-R Anxiety = Attachment-Related Anxiety; A-R Avoidance = Attachment-Related Avoidance;

It is possible to look at the amount of variance explained in a different light, however, and interpret the data to suggest that in most cases it would be more beneficial to combine women and men together to predict identity status. This is because every identity status except identity achievement had a combined variance explained that is higher than at least one of the variances based on biological sex. Identity achievement had higher amounts of variance explained when using the regression with the biological sexes separately (See Table 11). While the regression equations were analyzed four times, this is the only interpretation of the data that suggests that it would not be beneficial to predict identity statuses separately for men and women. Therefore, research hypothesis four is mostly supported.

Summary

This chapter described the results of the study by providing a description of the sample, an item analysis of the PPPS, the descriptive statistics of the instruments, and the results of the analyses for each research hypothesis. Overall, the first research hypothesis was supported. Of the possible 45 bivariate relationships between the variables, 32 of the bivariate relationships were found to be significant at the $p < .05$ level, and 21 of those were also significant at the $p < .01$ level. Of the 39 bivariate relationships between an identity status with one of the proposed predictors, 28 of the bivariate relationships were significant, though there were no overwhelmingly strong correlations. There were only three moderately strong bivariate relationships between an identity status and one of the predictors (identity diffusion with attachment-related avoidance [$r = .42$, $p < .01$], identity achievement with mood level [$r = .41$, $p < .01$], and identity moratorium with attachment-related anxiety [$r = .41$, $p < .01$]). There were found to be relationships between the predictors, but they were not so strong as to suggest issues related to multicollinearity.

The second research hypothesis was supported. All four identity statuses could be significantly predicted from all of the six predictors as well as with fewer predictors when the backward selection method was utilized. The data strongly supports the hypothesis that the six predictor variables examined in this study significantly predict identity status.

The third research hypothesis was partially supported. It was hypothesized that emotional reactivity and emotional cutoff would be different between women and men, but emotional cutoff was found to be not significantly different between women and men. Emotional reactivity and fusion with others were found to be significantly different

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between women and men, and in both cases the mean score for men was higher than the mean score for women. This is of note as previous studies have found that women had higher scores on emotional reactivity and have not found differences between women and men on fusion with others, though this finding may partially be an artifact of a small sample of men.

Finally, the fourth research hypothesis also was partially supported. There were substantial differences in the regression standardized beta weights between women and men. None of the variables with the most significant standardized beta weights with a magnitude above .250 were the same between women and men. When men and women were not separated in analyzing the multiple linear regressions, the variables with the most significant standard beta weights were almost exactly the same as the variables for women. Although this is likely due to the large majority of women in the sample, there does seem to be a reason to look separately at men and women when predicting identity status. The amount of variance explained, however, suggests the opposite for all of the identity statuses except identity achievement. Only identity achievement had a larger portion of the variance explained when looking separately at men and women than when combining them together.

CHAPTER V

DISCUSSION

The present study was designed to build upon previous research on identity status that shows the mental health benefits of committing to identity (Arseth et al., 2009b; Crocetti et al., 2011; Kroger et al., 2010; Meeus et al., 1999; Schwartz et al., 2011a; Waterman, 1999; 2007) and to further understand the predictors of identity status (Arseth et al., 2009b; Berman et al., 2006; Ford et al., 2008; Jenkins et al., 2005; Johnson et al., 2003; Kennedy, 1999; MacKinnon & Marcia, 2002). This study used previously investigated predictors of identity status, attachment and differentiation of self, which had not been examined concurrently and added the three meaning making subprocesses of mood, communication, and personal narrative from Eric Eisenberg's Identity Status Model (Eisenberg, 2001), not previously examined empirically. The first chapter presented the aims of the study and the research questions. The relevant literature was reviewed in the second chapter. The third chapter described the methods and data analyses, and the previous chapter provided the results for the present study. In this chapter, the results are discussed in light of the relevant literature, and the limitations, implications, and future research based on this study are also discussed.

Summary of the Sample

All of the participants in the study were emerging adult, undergraduate students. This sample has been extensively studied in regards to identity status (Crocetti et al.,

2011; Crocetti et al., 2012; Douglass, 2007; Luyckx et al., 2010; Schwartz et al., 2011a) as emerging adulthood is characterized by identity exploration (Arnett, 2004; 2011). The majority of the 133 participants in the study were white, non-Greek female college students. The ratio of men to women in the study (26.7% to 73.3%, respectively) is lower than the overall university population (34.5% male; 65.5% female), though the proportion of ethnic minority students (43.7%) was slightly higher than the overall university population (40.8%).

Discussion of the Results

Item Analysis

As this study was the first to use the PPPS as an author-constructed measure of personal narrative, an analysis of the reliability of the PPPS was completed first to test if the results involving the PPPS should remain in the study and what items should remain in this instrument. Chronbach's alpha for the instrument was obtained and found to be .85. While this is an acceptable level for social science research (Heppner et al., 2008), the PPPS was further analyzed to see if removing any items would improve the reliability of the instrument. That analysis led to removing two items (items 13 and 14), resulting in a 19-item instrument with an alpha of .86. The main result from this analysis was that the PPPS had adequate internal reliability to be utilized in the further analyses in this study.

Research Question One

Multiple bivariate relationships among the variables in this study were investigated to answer the first research question regarding the bivariate relationships among mood, personal narrative, communication, attachment-related anxiety,

attachment-related avoidance, differentiation of self, and identity status among a sample

of emerging adult college students. Pearson Product Moment correlations were utilized

to answer this question.

When looking at each identity separately as continuous variables, two of the

identity statuses (identity diffusion and identity achievement) had statistically significant

correlations with all but one of the predictor variables, differentiation and attachment-

related anxiety, respectively.   Identity foreclosure was significantly correlated with two

predictor variables (attachment related anxiety and mood) and identity moratorium was

significantly correlated with three predictor variables (attachment-related anxiety,

attachment-related avoidance, and differentiation).

Only one of the proposed predictor variables, attachment-related avoidance, had

significant correlations with all of the identity statuses. Interestingly, attachment-related

avoidance was the predictor variable with the strongest correlation only once, with

identity diffusion (r = .42, p < .01). Mood was the strongest correlate of identity

foreclosure and identity diffusion, while attachment-related anxiety was the strongest

correlate of identity moratorium. Mood was found to have statistically significant

correlations with three of the identity statuses, though the rest of the predictor variables

had significant correlations with two identity statuses. As found in other studies looking

at the correlations between identity statuses and attachment or differentiation (Arseth et

al., 2009b; Berman et al., 2006; Ford et al., 2008; Jenkins et al., 2005; Johnson et al.,

2003; Kennedy, 1999; MacKinnon & Marcia, 2002), there were only mild to moderate

correlations between identity status and attachment or differentiation. This supports the

premise of this study that while attachment and differentiation are important in understanding identity status, they do not seem to tell the whole story.

In regards to the part of the research question looking at the inter-correlations between the predictor variables, there is very strong support as 13 out of 15 of the bivariate relationships were found to be statistically significant. The direction of the relationships was consistent with previous research and the first research hypothesis, that there would be positive correlations in the bivariate relationships between differentiation of self, mood, communication, and personal narrative and negative bivariate relationships between attachment-related anxiety and avoidance with differentiation of self, mood, communication, and personal narrative. This is not surprising as increases in differentiation, mood, communication, and personal narrative are related to increased wellness and decreases in attachment-related anxiety and avoidance (less anxiety and less avoidance) are related to increased wellness.

The only two relationships between the predictor variables that were not found to be statistically significant are attachment-related anxiety with attachment-related avoidance and attachment-related avoidance with mood. The first finding is not surprising, as attachment style is typically understood as one of four styles based on low or high scores on attachment-related anxiety and attachment-related avoidance, meaning that it is common to find high attachment-related anxiety scores with both low and high levels of attachment-related avoidance scores. Thus, the virtually non-existent relationship between the two ($r = .04$) is not surprising. The lack of a relationship between attachment-related avoidance and mood is more surprising. The way that people

regulate their affect is an important part of attachment theory, and attachment-related avoidance is therefore theoretically linked with negative affect and mood (Caldwell & Shaver, 2012). Why this study did not find such a relationship is puzzling.

It will be important for counselors to know which predictor variables are correlated with each identity status for more accurate clinical assessment and which predictor variable(s) can help differentiate between the identity statuses. In other words, it is clinically important to know the correlations to narrow down to one or two identity statuses and then know which variable(s) can used to identify the exact identity status to tailor interventions particularly towards that identity status.

Research Question Two

The second research question addressed the prediction of each identity status by attachment-related anxiety, attachment-related avoidance, differentiation, mood, communication, and personal narrative. The research hypothesis was that the each identity status would be able to be predicted. Four multiple linear regressions were conducted to address this question. The results indicated that each regression equation was significant at the $p < .001$ level. The regressions explained between .21 and .30 of the variance within identity statuses. Identity diffusion ($r^2 = .30$) had the most variance explained followed by identity moratorium ($r^2 = .27$), identity achievement ($r^2 = .26$), and identity foreclosure ($r^2 = .21$).

Past researchers (Arseth et al., 2009b; Berman et al., 2006; Jenkins et al., 2005; Johnson et al., 2003) have typically found a lower amount of variance explained, roughly 5 – 20%, though a couple of studies were able to explain more variance in identity status

(Ford et al., 2008; MacKinnon & Marcia, 2002). Ford et al. (2008) used differentiation

of self to predict each identity status for fathers aged from 18 to 79, and the amount of

variance explained in the different identity statuses ranged from 5% for identity

foreclosure to 69% for identity moratorium, with identity moratorium and identity

diffusion ($r^2 = .59$) being more significantly predicted than the results of this study. This

may be due to the broad differences in age and ethnic makeup of the samples of the

present study and Ford et al.'s (2008) study. MacKinnon and Marcia (2002) looked at

the correlations between attachment style and identity status, though they chose to look at

attachment style as a categorical variable as opposed to using attachment-related anxiety

and avoidance using attachment style as two continuous variables. They completed a

MANOVA to see if the attachment styles significantly differed across the four identity

statuses and found that people with specific attachment styles were correlated with

specific identity statuses. Accordingly, the values reported by MacKinnon and Marcia

(2002) are not actually comparable to the findings for the current study. Therefore, the

results of this study supported investigating more than one predictor of identity status

simultaneously.

Specifically, the results of this study provided a strong rationale for looking at

multiple predictors of identity status because predictors had differences in the amount of

variance explained across the different identity statuses. For instance, attachment-related

anxiety and avoidance were found to most significantly predict identity moratorium,

though mood level and personal narrative most significantly predicted identity

foreclosure. Attachment-related anxiety was the only variable that was significant in

predicting all of the identity statuses and was strongest in predicting identity moratorium. While attachment-related anxiety was statistically significant in predicting all four identity statuses, it did not have a large standardized beta weight when compared to other predictors; the exception to this was in the prediction of variance in identity moratorium, in which attachment-related anxiety was a relatively strong predictor.

Backward selection was used to find which variables contributed most significantly to each identity status, and the non-significant variables dropped out of the regression equation. This process raised the associated F-values for the regression equations while slightly decreasing the amount of variance explained of each identity status. The backward selection process resulted in regression equations contained four significant predictors of identity diffusion (attachment-related anxiety and avoidance, differentiation, and personal narrative), three variables for identity foreclosure (attachment-related avoidance, mood level, and personal narrative), two variables for identity moratorium (attachment-related anxiety and avoidance), and three variables for identity achievement (attachment-related anxiety, mood level, and personal narrative). Communication was the only predictor variable that was not found to significantly predict any identity status after using backward selection, which is consistent with the non-significant standardized beta weights found when using the full regression models. All of the other variables were significant in at least one identity status. Differentiation was significant with one identity status (identity diffusion), and mood level (Identity foreclosure and achievement) was significant with two identity statuses, and attachment-related anxiety (identity diffusion, moratorium, and achievement), attachment-related

avoidance (identity diffusion, foreclosure, and moratorium), and personal narrative (identity diffusion, foreclosure, and achievement) were significant with three identity statuses.

In the multivariate models, higher levels of identity diffusion were associated with higher levels of attachment-related avoidance, differentiation, and attachment-related anxiety, and lower levels of personal narrative. Higher levels of identity foreclosure were associated with higher levels of mood and attachment-related anxiety and avoidance as well as lower levels of personal narrative. Higher levels of identity moratorium were associated with higher levels of attachment-related anxiety and avoidance. Finally, higher levels of identity achievement were associated with higher levels of mood, personal narrative, and attachment-related anxiety. The attachment-related variables play an important role in each of the identity statuses and were directly related to each identity status. This contrasts with previous findings, in which researchers did not find an association between attachment and identity foreclosure and achievement, the statuses with a current commitment to identity (Arseth et al., 2009b; Berman et al., 2006; Kennedy, 1999; MacKinnon & Marcia, 2002). There is not a theoretical reason why higher levels of attachment-related anxiety or avoidance would be connected with identity commitment so this merits additional investigation to explain this phenomenon.

Additionally, it is noteworthy to note the patterns of when the predictors were found to be significant. Mood level was found to be significant in both identity statuses where identity commitment is present (identity foreclosure and achievement) and non-significant where identity commitment is not present (identity diffusion and moratorium).

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Therefore, mood level was high when identity commitment was high and was mixed when identity commitment was low. This is consistent with Schwartz et al.'s (2011a) findings that identity commitment positively correlates with eudaimonic well-being, psychological well-being, and life satisfaction. This study supported Schwartz et al.'s findings and begs the question of whether positive mood is a precursor to identity commitment that then leads to higher levels of wellness. Since it typically takes a reason or sense of dissonance to not commit to identity, it may be that mood is an important predictor and precursor of identity commitment and wellness. Therefore, it may be important for counselors to help clients to address any issues related to mood before working on identity commitment.

Attachment-related avoidance was a stronger predictor of identity diffusion and moratorium than the other identity statuses. This is important because these are the identity statuses where identity commitment is not present. One possible explanation here is that people with higher attachment-related avoidance tend to push others away, which can lead to role confusion in social situations. With identity diffusion, attachment-related avoidance is a stronger predictor than attachment-related anxiety, though this is reversed in identity moratorium where the anxiety is a stronger predictor than the avoidance. It could be that when attachment-related avoidance is more prevalent than attachment-related anxiety, the avoidance might lead individuals to go with the flow and keep others at a distance, which could be the coping strategy with anxiety for individuals in identity diffusion. On the other hand, when attachment-related anxiety is greater than attachment-related avoidance, the anxiety might lead people to search for their identities

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and therefore go towards others for feedback from others despite the attachment-related avoidance, as attachment-related anxiety was higher than the attachment-related avoidance when there is an active search for identity in identity moratorium. Further, attachment-related avoidance had a relatively small beta weight when identity was not explored but was committed (identity foreclosure). It may be that some with a more avoidant strategy forego a thorough identity exploration (as part of their avoidant strategy) but nonetheless commit to an identity, hence the relatively small beta weight. It may also be that an avoidant attachment style isolates people from important social feedback that is important to identity exploration and commitment. This would lead to identity foreclosure for some people who might label themselves "loners" or "outcasts" where there is a commitment to identity without interaction with others that would reduce further identity exploration. It will be important for future research to tease out the mechanisms whereby people with more attachment-related avoidance might tend to foreclose on identity as an avoidant coping strategy.

Personal narrative was found to have a negative standardized beta weight when identity exploration was absent (identity diffusion and foreclosure) and positive when identity was explored and committed (identity achievement).   Therefore, mood level and attachment-related anxiety were related to identity commitment, and personal narrative was related to identity exploration. There is an alternative view, however, of role of personal narrative in the identity development progress. It can be argued that as a developmental progression occurs from identity diffusion to identity foreclosure to identity moratorium to identity achievement, personal narrative moves from being low to

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high with a transition period during identity moratorium where an individual would be confused about her or his abilities and sense of self and then becomes more clear about identity. This argument is based in Eriksonian (Erikson, 1968), emerging adulthood (Arnett, 2004, 2011), and Chickering's (1969)models that identity development takes during late adolescence and early adulthood where an individual often questions who he or she is and then receives a heightened sense of freedom and purpose after going through an identity search. This becomes somewhat clouded in terms of identity statuses, as in reality the identity statuses are really snapshots in time and researchers have been unable, to date, to note a clear pathway for transitioning through the identity statuses (Kroger, 2007; Marcia, 1980; Schwartz et al., 2011a).

Overall, two main findings are apparent for research question two: this set of predictors accounts for a significant amount of variance in each of the identity statuses, and there are different variables connected with predicting the different identity statuses. It is important to consider all of the predictor variables from the current study except for communication in the prediction of the various identity statuses.

Research Question Three

The last two research questions investigated the impact of biological sex on identity status and the proposed predictors. Research question three specifically investigated the differences between the biological sexes that have been previously found in the subscales of differentiation. Researchers (Johnson et al., 2001b; Jenkins et al., 2005; Peleg-Popko, 2004; Skowron, 2000; Skowron & Friedlander, 1998) have found that women typically score higher on emotional reactivity and men typically score higher

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on emotional cutoff, and that scores on "I" position and fusion with others is not significantly different between women and men, which informed the hypothesis for this study. Results, however, did not bear this out. Emotional reactivity was found to be significantly different between men and women, but emotional cutoff was not. Also, fusion with others was found to be significantly different, which has not been reported before in the literature. In both cases, men were found to have higher scores than women.

While these findings are surprising, they should be viewed with caution. The sample for the study is overwhelmingly female (73.3%) and there were only 28 males who completed the survey packet. This calls into question the generalizability of these findings. It may be that this small group of males does not accurately reflect the population of emerging adult males. Additional research is warranted, though, to further tease out these differences related to biological sex.

Research Question Four

Research question three specifically investigated the impact of biological sex on the subscales of the DSI-R to measure differentiation, and research question four explored if it is more appropriate to predict identity statuses with or without regard to biological sex. Three out of the four possible ways of analyzing the data were found to have significant results that suggested that it is more beneficial to predict identity status separately for women and men. The standardized beta weights, unstandardized beta weights, and one of the two ways of analyzing the amount of variance explained supported separate regression equations for women and men.

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The Fisher's z scores based on the zero-order correlation coefficients also suggests that there are significant differences in the importance of certain predictors. All nine predictors that were found to be statistically significant in a regression equation were also found to be significantly different for men and women. Personal narrative in identity diffusion and achievement was found to be significantly higher for men than women, though in all other cases the predictors were significantly stronger for women than men. That is, attachment-related avoidance in identity diffusion, foreclosure, and moratorium, attachment-related anxiety in identity moratorium and achievement, and mood in identity foreclosure and achievement were all significantly higher for women than men.

The most significant predictors were different for men and women for different identity statuses. For women, attachment-related avoidance and personal narrative were the strongest predictors of identity diffusion, though mood and differentiation were the strongest predictors for men. Mood was the strongest predictor of identity foreclosure for women, but attachment-related avoidance was the strongest predictor for men. For identity moratorium, attachment-related anxiety and avoidance were the most significant predictors for women, but differentiation of self and communication were the most important for men. Mood and attachment-related anxiety were the most significant variables for women in predicting identity achievement, while differentiation, personal narrative, and attachment-related avoidance were the most significant predictors for men. The differences suggest that the different variables are important for men or women.

Interestingly, differentiation was found to be a significant predictor only for men, and the attachment-related variables were found to be significant predictors much more

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often for women. Communication was only found to be significant with men as well. A couple of other patterns of the significant predictor variables also emerged. For men, attachment-related avoidance was found to have a significant inverse relationship with identity foreclosure and achievement. Similarly, mood was found to have a direct relationship with identity foreclosure and achievement for women. These findings suggest that lower levels of attachment-related avoidance in men predicts identity commitment and that higher moods in women predict identity commitment. While theoretically low levels of attachment-related anxiety and avoidance and high levels of differentiation, mood, communication, and personal narrative would be associated with identity commitment (Arseth et al., 2009b; Cole, 2009; Eisenberg, 2001; Kroger et al., 2010; Luyckx et al., 2008; Schwartz et al., 2011a; Waterman, 2007), mood was the only consistently significant predictor of identity commitment in women, and attachment-related avoidance was the only consistent predictor in men. This has clear implications for different foci of interventions for men and women in counseling such as focusing on helping female emerging adult clients to improve their mood and helping male emerging adult clients to improve their connection with significant others in their lives.

The tests for significance revealed that all four linear regressions were statistically significant for women and not statistically significant for men. This is not surprising in light of the small number of men who participated in the study. To determine if it is better to predict identity statuses for women and men collectively or separately, the amount of variance explained by the regression equations is important. For five of the eight percentages of variance explained, the amount when taking only one biological sex into

consideration was higher than combining both sexes together in the regression equation, and for identity achievement more variance was explained for both men (34%) and women (28%) when considered separately than when considered together (26%). While the other three identity statuses present a mixed picture of what is the best approach, it is clear for identity achievement that the linear regression is able to explain more variance in identity status when each biological sex is predicted separately. With the small number of males in the sample, the amount of variance explained could be misleading. While the variance explained by the predictors was between 17 and 34% for men, it is important to realize that this could have been due to the small sample size of men. Further research with a larger sample of men clearly is warranted to replicate and extend these findings.

The most notable finding from this research question is that focusing on improving mood for emerging adult women and connection with significant others for men could facilitate clients in committing to identity and thereby increasing their overall wellness. Further, results suggest that there may be differences in the predictors for women and men, but further research is needed to better understand the differences and how that impacts counselors working with women and men in the same identity status. Though these findings suggest important areas for future research, it is premature to base treatment solely on the results from this one study.

Limitations

There are notable limitations to this study. The sample of this study was entirely college students, so there is no attempt to generalize these findings to non-college

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students. Additionally, all of the instruments in this study were composed of self-report data, which could be biased or influenced by the participants' perceptions instead of what could be observed of participants. Also, the data in this study is solely cross-sectional data, so it does not test developmental trajectories or casual links. Therefore, it is not certain that the predictors lead to the identity statuses, as there might be some aspect of the identity statuses that leads to the significant predictors of that identity status. That is, the direction of the relationships is inferred based on theory, but alternative directions or even bi-directional influences are possible.

In the current sample, there was a disproportionate percentage of women who participated in the study. This means that the analyses for research questions may be impacted more strongly by the responses of women and may not accurately reflect results if the sample included a more balanced population of men and women. Also, the small number of men who participated in the study may not accurately reflect the overall population of male emerging adults, particularly with research question three and four, so external validity of these findings is called into question.

Another limitation to the study is the lack of previous research with which to compare the findings related to the MS, the ICI, and the PPPS. Because these measures have not previously been used in identity status research, there is no baseline with which to compare the findings from this study. While there were significant findings associated with mood level, communication, and personal narrative, future research could further inform these findings, either by substantiating the findings or finding alternative approaches to assessing these constructs. In particular, using the full version of the ICI

might not be the most appropriate way to measure communication, as not all of the items are assessing openness and defensiveness in interpersonal communication. The ICI measures a larger construct of communication style, so it may be that a portion of the questions on the ICI would better measure communication as defined in the study.

There also might be differences in participants and non-participants of the study. The researcher went to several classrooms from 9 different academic departments in an effort to diversity the sample, but the sample is only composed of students within these classes who volunteered to participate. It is unknown if participants and non-participants differ in any systematic manner. For example, the participants were told that the study focused on identity development, and the students who chose to participate may be more interested in identity development and explored their identities more than non-participants.

Lastly, there are limits to the generalizability of the results of this study. The sample was completely composed of undergraduate students from one medium-sized public university in central North Carolina. There were a small percentage of males, students involved in Greek-life, and athletes, which may impact the interpretation of the results.

Implications

The results of this study have several implications for counselors, counselor educators, and identity researchers. This study builds on previous research findings that identity status is important in overall wellness and psychological symptoms. Further, this study provides important information on what predictors impact identity status, what to

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focus on in treatment, how to work with men and women differently, and empirically

supports theoretical connections between identity status and related constructs of

attachment, differentiation, mood, communication, and personal narrative.

Previous researchers (Hofer et al., 2007; Meeus et al., 1999; Phinney, 1989;

Schwartz et al., 2011a; Waterman, 2007) have shown that identity status is an important

model to use in working with emerging adults, and current researchers (Ford et al., 2008;

Jenkins et al., 2005; Johnson et al., 2008; MacKinnon & Marcia, 2002) are looking for

the predictors of identity status. This study was the first to use both attachment and

differentiation as predictors of identity status. The variance explained in this study was

found to be higher than most previous studies have reported, which shows the utility of

looking for more than one predictor of identity status. Eisenberg's (2001) Identity

Process Model was added to the previously considered predictors and also added to the

predictive strength of the model.   Using the six variables together in a multiple linear

regression model provided a significant regression equation at p < .001 for all four

identity statuses. While all four linear regressions were found to be significant, the

predictors with a large standardized beta weight ($\geq$ .250) were different for the identity

statuses. High attachment-related avoidance and differentiation scores along with low

personal narrative scores predicted higher identity diffusion scores. High mood scores

and low personal narrative scores predicted higher identity foreclosure scores. High

attachment-related anxiety and avoidance scores predicted higher identity moratorium

scores, and high mood scores predicted identity achievement scores. Based on this

information alone, some prediction could be made as to what identity status an individual would be in.

Therefore, this study provides important information for assessing a client's overall identity status. By using the correlation coefficients and regression beta weights and variance explained, some patterns emerge that are helpful for assessing identity status.

- If a client has high mood level, the client is more likely to have committed to an identity and be in either identity foreclosure or achievement.

- If a client has high personal narrative, the client is more likely to be in identity achievement, and if the client has low personal narrative, then he or she is more likely to be in identity diffusion.

- If the client has high attachment-related anxiety and/or avoidance, then the client is more likely to have not committed to an identity and subsequently be in identity diffusion or moratorium.

This information can help counselors to quickly assess the client's overall identity status, which is an important step in the counseling process. This also aided counselors in determining treatment interventions based on the identity status of the emerging adult client.

While further research needs to be completed to determine the effectiveness of different treatments to match emerging adult clients in different identity statuses, this study provided empirical support for which factors to address in treatment for clients in different identity statuses. The results suggested that high attachment-related anxiety and

avoidance would be important to address if the emerging adult client is in identity diffusion or moratorium. Therefore, talking with clients in identity diffusion or moratorium about their relationships and interactions with the people closest to them would be appropriate. With emerging adult clients in identity foreclosure, low personal narrative (meaning lower perceptions of personal power, ability, and choice) is prevalent so the counseling process may need to focus on their self-efficacy. Accordingly, an honest assessment of their strengths and weaknesses, and discussion about their options would be appropriate interventions. For emerging adults in identity achievement, higher attachment-related anxiety is present, so they may be focusing on Erikson's next psychosocial developmental task of intimacy versus isolation or may be concerned about how others will perceive them. Focusing on these concerns is likely to be beneficial for those clients based on the results of this study.

The six predictors utilized in this study explain a significant amount of variance in identity status. Between 27% and 34 % of the variance was able to be explained for each identity status. However, there is still over 50% of the variance in identity status that is not accounted for with these six predictors. While the results of this study are able to predict more variance in identity status than most previous studies on identity status and adds important predictors based on Eisenberg's (2001) Identity Process Model, there still may be significant predictors that have not been addressed. It seems that there may be another variable or variables that can add to the amount of variance in identity status that is able to be predicted.

Another important consideration for counseling practice is that men and women should be treated differently. The predictors of each identity status were different for men and women, with one general theme being that attachment is a more significant predictor of women's identity statuses and differentiation is a more significant predictor for men. High differentiation scores for men generally predicted lower scores for the identity statuses (though high differentiation was predictive of higher identity diffusion), but high differentiation scores for women generally predicted higher scores for the identity statuses. There were stronger beta weights for attachment-related avoidance and anxiety for women in all cases but with attachment-related anxiety in identity foreclosure. For attachment-related anxiety, higher scores predicted higher scores in each identity statuses for women, though higher attachment-related anxiety predicted a lack of identity exploration for men with positive beta weights only for identity diffusion and foreclosure. The differences are most notably seen in predicting identity moratorium where differentiation has a very strong beta weight (-.904) and both attachment-related variables with very weak beta weights (.084 for attachment-related avoidance and -.039 for attachment-related anxiety) for men, while attachment has strong beta weights (.452 for attachment-related anxiety and .311 for attachment-related avoidance) and very weak beta weights for differentiation (-.031) for women. Therefore, the connections of clients with significant others (i.e., focus on attachment relationships) would likely be more important to focus on for emerging adult women, while the ability to be emotionally non-reactive though emotionally connected, to understand and assert a viewpoint, and to see self apart from others (i.e., focus on differentiation) would likely be more important to

focus on with emerging adult men. Personal narrative was a significant predictor for men

and women, so it would also be important for counselors to focus on their clients'

perception of their personal stories, abilities, perceived options, and perceived influence

over their lives. Personal narrative was a significant predictor of identity moratorium and

achievement for men and of identity diffusion and foreclosure for women, so it would be

especially important to focus on personal narrative in those identity statuses. Some

approaches, such as Narrative Therapy, would directly address and likely help clients to

raise their perception of power and possibility in their lives as well as the life story that

they are creating. This would likely lead to identity exploration and commitment as

clients increase their self-efficacy and create or recreate the narratives in their lives and

thereby increase their overall wellness and decrease their psychological distress. The

results showed that there are different significant predictors of the identity statuses for

women and men, and it is likely that effective treatment for emerging adult women and

men in the same identity status would look different.

While this study did not include measures of wellness and psychological distress,

previous researchers (Arseth et al., 2009b; Crocetti et al., 2011; Kroger et al., 2010;

Meeus et al., 1999; Schwartz et al., 2011a; Waterman, 1999; 2007) have found that

people in identity foreclosure and achievement had significantly higher wellness scores

and lower depression and anxiety. The results from this study suggest that higher mood,

communication, and differentiation scores and lower attachment-related avoidance and

anxiety are related to those identity statuses. Further, the opposite (lower mood,

communication, and differentiation, and higher attachment-related avoidance and

anxiety) are related to identity diffusion and moratorium. This suggests that higher levels

of mood, communication, and differentiation combined with lower levels of attachment-

related avoidance and anxiety are related to committing to identity and, perhaps, to higher

wellness and less psychological distress, though this can only be inferred from the

correlational data from this study and previous findings. Additional intervention studies

are needed to examine this process within a causal rather than correlational framework.

This research is also important for counselor educators. The CACREP standards

for Human Growth and Development core curriculum area (CACREP, 2009) emphasize

that counselor educators are to teach students about important developmental models.

Erikson's psychosocial model of development is one of the most important

developmental models, and Erikson (1968) said that identity development is one of the

most impactful stages of development. This study utilized previous research on the

importance of Marcia's (1964, 1966) identity statuses and how they impact overall

wellness and psychological distress (Hofer et al., 2007; Hofer et al., 2011; Klimstra et al.,

2012; Luyckx et al., 2008; Meeus et al., 1999; Phinney, 1989; Schwartz et al., 2009a;

Schwartz et al., 2009b; Schwartz et al., 2011a; Waterman, 2007; Zimmer-Gembeck &

Petherick, 2006). It is important for counselor educators to talk with counseling students

about how identity status impacts emerging adults, how development can impact a

client's mood, and how to address specific presenting concerns such as adjustment,

anxiety, and depression from an identity development perspective.

Future Research

This study answers some questions about the identity status and its predictors, though it also leads to many more questions. A first step would be a replication study to see if these findings are generalizable beyond this sample. Additionally, given the limitation of a cross-sectional design, it would be useful to investigate the temporal process of identity development to consider changes over time. Accordingly, longitudinal and case study designs would add additional information. Further, it would be useful to investigate the ideological and interpersonal identity statuses to see if and how they impact development. Because of the limited number of men who participated in this study, additional research on biological sex and gender differences in identity development and the identity statuses would be useful. Also, although Eisenberg's (2001) Identity Process Model is over a decade old, it has received limited empirical attention. The results of this study show promise for Eisenberg's model and indicate that additional empirical examination is warranted. Also, although previous researchers clearly have found a link between identity status and both wellness and psychological symptoms, it would be useful to test prediction models that consider the predictor variables in this study and identity status as predictors of wellness and psychological symptomology as it is possible that there are as yet undetected mediating or moderating paths. That is, it is possible that some of the predictors of this study would directly predict wellness and psychological symptoms or that these relationships are mediated or moderated by identity status, questions that warrant empirical examination. Finally, the ultimate goal of this

research is to inform counseling practice, so intervention studies are needed. These recommendations for future research are detailed further below.

While most of the findings from this study were significant, it is important to repeat the procedures with a different sample to see if the findings generalize beyond this specific sample. There could be idiosyncrasies of this sample that would not bear out with the general population. So completing this study at another location with emerging adult college students would be beneficial to see if these findings apply to the larger population of emerging adult undergraduate students. Also, it would be important to carry the study out with non-college students to examine similarities and differences in the findings. There likely are differences in identity status among emerging adults who go to college and those who do not, so it is important to see if the predictors of identity status are similar in these different populations. Similarly, it is also important to investigate if these findings are consistent with non-emerging adults to see if the predictors are the same for adolescents and adults above the age of 25.

Many previous researchers (Meeus et al., 1999; Schwartz et al., 2011a) have called for longitudinal studies to more accurately evaluate the identity development process. Cross-sectional studies, such as the present study, can provide important information on the relationships and predictors of identity statuses, but they cannot provide causal data where it could become clear what impact that changes in the predictors would have on identity statuses, wellness, and psychological distress. Longitudinal or time-series studies also could provide better information on how counselors can provide effective treatment.

This study, like most other studies, used a more global measurement of identity status. Looking at the ideological (occupational, religious, political, and philosophical) and interpersonal (friendship, dating, sex roles, and recreational) components of identity status may be important to see how they impact identity status and identity development. Future investigations could investigate if the predictors are different for ideological and interpersonal aspects of identity status and if they are different for women and men. Some researchers (Kroger, 2007; Schwart et al., 2011b) have suggested that interpersonal components are more important in women than men, though empirical evidence is currently lacking.

While this study indirectly tested Eisenberg's (2001) hypothesis that mood, communication, and personal narrative are the meaning making subprocesses that create and recreate self-identity, it is important for this model to be addressed more specifically. The Identity Process Model holds great promise for counselors in terms of conceptualization of identity development and treatment for clients. It seems like an important next step would be for qualitative research in this area to provide rich description of the identity development process. This would be important information for counseling practitioners to use with clients as well as for identity researchers to inform future studies.

This study provided evidence for differences in identity status based on biological sex. There were some clear differences in the predictors of identity status for men and women. It is important to keep in mind, however, that there was a small number of men in the current sample. It is important to see if a sample with a larger number of men

would provide different results for research questions three and four regarding the differences in women in men in terms of differentiation of self and the significant predictors of identity status. It is still unclear whether it is better to predict men and women using separate regression equations or whether they can be considered together.

Also, it remains to be determined what factors fully predict identity status. This is the first study to combine attachment and differentiation as predictors of identity status at the same time and the first study to investigate if Eisenberg's (2001) Identity Process Model is able to significantly add to the prediction model of identity status. While the amount of variance explained was larger than most previous researchers have found (Ford et al., 2008; Jenkins et al., 2005; Johnson et al., 2008; MacKinnon & Marcia, 2002), there could be important predictors of identity status that are yet unknown.

Additionally, there is a need to now test the full path model involving the predictors of identity status, identity status, and wellness and psychological distress. This study explained variance in identity status, which has been previously shown to have clear implications for wellness and psychological distress (Hofer et al., 2007; Hofer et al., 2011; Klimstra et al., 2012; Luyckx et al., 2008; Meeus et al., 1999; Phinney, 1989; Schwartz et al., 2009a; Schwartz et al., 2009b; Schwartz et al., 2011a; Waterman, 2007; Zimmer-Gembeck & Petherick, 2006). By completing a path analysis, the implications of how the predictors impact identity status, wellness, and psychological distress can be better understood. This could lead to understanding which predictors are important to focus on in treatment with clients in particular identity statuses. Then, researchers could test interventions to see if changes in predictors are related to changes in identity status.

Information from such studies has large implications for counseling practice and could substantially improve the conceptualization of identity development and mental health treatment. Such information could also lead to greater understanding of the identity development process and of what leads to changes in identity status. While there is currently a theoretically answer that a counselor can help a client to exploration her/his identity and can help the client ease her/his anxiety and commit to identity, how a counselor would do this and how effective these interventions would be are less clear.

Conclusion

While vast amounts of research has been done on identity statuses over the past 50 years and researchers understand the implications of identity statuses much more than when Marcia (1964) first proposed and tested the identity statuses, there is much more to understand and utilize from his identity statuses. This study built on previous research outlining the psychological benefits of committing to an identity and provided more information about the predictors of identity status for emerging adult college students. Attachment and differentiation are previously considered predictors of identity status that have previously accounted for mild to moderate amounts of the variance in identity statuses (Arseth et al., 2009b; Berman et al., 2006; Ford et al., 2008; Jenkins et al., 2005; Johnson et al., 2003; Kennedy, 1999; MacKinnon & Marcia, 2002). Rationale was provided for integrating Eisenberg's (2001) Identity Process Model, and mood, communication, and personal narrative were investigated as possible predictors of identity status. The results of this study using a sample of 133 emerging adult college students revealed that a multiple linear regression model using all six predictors

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(attachment-related anxiety and avoidance, differentiation, mood, communication, and personal narrative) can significantly predict (as high as $R^2 = .30$, $F_{6, 126} = 9.017$, $p < .001$ for identity diffusion and as low as $R^2 = .21$, $F_{6, 126} = 5.438$, $p < .001$ for identity foreclosure) all four identity statuses. All predictors significantly correlated with at least half of the identity statuses, though no one predictor had a very strong relationship with any identity status. This supports the belief that identity status is not predicted by any one factor and is a construct that is impacted by many factors. Also, the results from this study were able to explain a larger amount of variance than has been explained in most previous studies when only one predictor of identity status was utilized. Finally, the predictors of identity status were not found to be the same for men and women, where differentiation seemed more important for men and attachment-related anxiety and avoidance seemed more important for women.

This study has several implications for counselors, counselor educators, and identity researchers. Most notably, higher mood scores and lower attachment-related anxiety and avoidance scores are related with the identity statuses where an individual has committed to identity, and personal narrative scores seem to increase with identity exploration. Counselors can target interventions to individuals in different identity statuses to address their mental health needs and can use the findings from this study to see which predictors are strongest for the client's identity status. The 2009 CACREP standards require counselor educators to provide information on identity development in the Human Growth and Development core curriculum area to students. These findings are important information to provide to counselors to help them more appropriately and

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effective work with clients with identity, depression, and anxiety presenting concerns. This study built off a solid foundation of research on identity development, though many important questions remain. It is important that researchers continue to answer questions such as what interventions are effective in helping clients to change their identity statuses, how the identity development process occurs over time, what other significant predictors of identity status exist, how identity development looks different for men and women, and whether a path model of identity status predictors, the identity statuses, and wellness and psychological distress can more fully explain a path to wellness. Although more work is needed, this study extends the knowledge base on identity status and provides some direction for the future work that is needed.

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APPENDIX A

ORAL RECRUITMENT SCRIPT

My name is Benjamin Willis, and I am a doctoral student requesting for participation in a

research study. The purpose of this research study is to examine the predictors of identity

statuses of college students from ages 18 to 25. To be in this study, you must be an

undergraduate student who is 18-25 years old. If you are not an undergraduate student, are

younger than 18, or are older than 25, then you cannot be included in this study. There will be a

series of six assessments as well as demographic questions. You will be asked to complete the

survey materials. Completion of this study is estimated to take approximately 30 minutes. If you

decide to participate in this study, there are no foreseeable risks. As with any research, there is

some possibility that you may be subject to risks that have not yet been identified. There are no

direct benefits with participation. The main benefit to you for participating in this study is the

opportunity to reflect on yourself. There is no cost to participate. The researchers want your

decision about participating in this study to be absolutely voluntary, yet they recognize that your

participation in this study requires some time commitment on your part. In order to compensate

for your time, you have the option of being entered into a drawing for a $30 gift card to

Amazon.com. Participation in the drawing is voluntary, as it involves providing an email address

to send the gift card. Submission of an email address will not be linked to your responses in the

study. There will be five Amazon.com gift card given out for this study. The researchers will

take reasonable steps to keep private information, such as demo-graphic information and survey

results confidential. Your name will not be connected with your data in this study. Data will be

compiled using computer software and stored on a password-protected computer. Only the

researchers of this study will have access to the data. The researchers of this study are Benjamin

Willis and Dr. Craig Cashwell. To be a participant in the study, go to (link), read the informed

consent, and choose whether or not to complete the study. If you have any questions, please

contact Benjamin Willis at btwillis@uncg.edu. Please raise your hand if you would like a slip of

paper with the link of the study, and I will hand you a slip of paper with the link of the study and

my contact information.

PAPER PARTICIPANT CONSENT FORM

PROJECT TITLE: How Identity Develops

INTRODUCTION

The purposes of this form are to provide you information that may affect your decision to participate or not participate in this research and to record the consent of those who choose to participate. This document of informed consent will present researcher information, description of research, and assess the risk and benefits of participation.

RESEARCHERS

The primary investigator of this study is Benjamin T. Willis, M.S., Ed.S., NCC, LPCA and is a doctoral student in the Department of Counseling and Educational Development at The University of North Carolina at Greensboro.

The secondary investigator is Craig S. Cashwell, Ph.D., LPC, NCC and is a professor in the Department of Counseling and Educational Development at The University of North Carolina at Greensboro.

DESCRIPTION OF RESEARCH STUDY

The purpose of this study is to examine the predictors of identity statuses of college students from ages 18 to 25. There will be a series of six assessments as well as demographic questions. You will be asked to complete the survey materials. Completion of this study is estimated to take approximately 30 minutes.

EXCLUSIONARY CRITERIA

If you are below the age of 18, above the age of 25, or not an undergraduate student, then you are not eligible for this study.

RISKS AND BENEFITS

RISKS: If you decide to participate in this study, there are no foreseeable risks. As with any research, there is some possibility that you may be subject to risks that have not yet been identified.

BENEFITS: There are no direct benefits with participation. The main benefit to you for participating in this study is the opportunity to reflect on yourself. This study may benefit society by providing information that will allow counselors and other mental health professionals to be able to better understand identity development and provide better services to their clients.

COSTS AND PAYMENTS

There is no cost to participate. The researchers want your decision about participating in this study to be absolutely voluntary, yet they recognize that your participation in this study requires some time commitment on your part. In order to compensate for your time, you have the option of being entered into a drawing for a $30 gift card to Amazon.com. Participation in the drawing is voluntary, as it involves providing an email address to send the gift card. Submission of an email address will not be linked to your responses in the study. There will be five Amazon.com gift card given out for this study.

CONFIDENTIALITY

The researchers will take reasonable steps to keep private information, such as demographic information and survey results confidential. Data will be compiled using computer software and stored on a password-protected computer. Only the listed researchers will have access to the data. The results of this study may be used in reports, presentation, and publication; but the researchers will not identify you. All information obtained in this study is strictly confidential unless disclosure is required by law. Your records may be subpoenaed by court order or inspected by government bodies with oversight authority. Absolute confidentiality of data provided through the Internet cannot be guaranteed due to the limited protections of Internet access. Please be sure to close your browser when finished so no one will be able to see what you have been doing.

WITHDRAWAL PRIVILEGE

It is OK for you to say NO. Even if you say YES now, you are free to say NO later, and walk away or withdraw from the study, at any time. Your decision will not affect your relationship with The University of North Carolina at Greensboro, or otherwise cause a loss of benefits from which you might otherwise be entitled.

WHAT ABOUT NEW INFORMATION/CHANGES IN THE STUDY?

If significant new information relating to the study becomes available which may relate to your willingness to continue to participate, this information will be provided to you.

VOLUNTARY CONSENT

By selecting the "Agree" box below, you are agreeing that you have read this form or have had it read to you, and that you are satisfied that you understand this form, the research study, and its risks and benefits. The researcher should have answered any questions you may have had about the research. If you have any questions at any point during or after this study, please contact Benjamin Willis at btwillis@uncg.edu or 336-430-2679.

Benjamin T. Willis, M.S., Ed.S., NCC, LPCA
Counselor and Doctoral Student
The University of North Carolina at Greensboro
Dept. of Counseling & Educational Development
336-334-5112
btwillis@uncg.edu

By signing below, you are expressing consent to be a participant in this study. You may withdraw this consent at any time.

Name: _____ Date: _____

APPENDIX C

EXTENDED OBJECTIVE MEASURE OF EGO IDENTITY STATUS – II
(EOMEIS-II)

Bennion & Adams (1986)

Response Scale: 1 = strongly agree   4 = disagree
                 2 = moderately agree   5 = moderately disagree
                 3 = agree   6 = 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.

2. When it comes to religion I just haven't found anything that appeals and I don't really feel the need to look.

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.

4. There's no single "life style" which appeals to me more than another.

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.

6. I sometimes join in recreational activities when asked, but I rarely try anything on my own.

7. I haven't really thought about a "dating style." I'm not too concerned whether I date or not.

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.

9. I'm still trying to decide how capable I am as a person and what work will be right for me.

10. I don't give religion much thought and it doesn't bother me one way or the other.

11. There's so many ways to divide responsibilities in committed relationships, I'm trying to decide what will work for me.

12. I'm looking for an acceptable perspective for my own "life style", but haven't really found it yet.

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.

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.

15. Based on past experiences, I've chosen the type of dating relationship I want now.

16. I haven't really considered politics. It just doesn't excite me much.

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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.

18. A person's faith is unique to each individual. I've considered and reconsidered it myself and know what I can believe.

19. I've never really seriously considered men's and women's roles in committed relationships. It just doesn't seem to concern me.

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.

21. My parents know what's best for me in terms of how to choose my friends.

22. I've chosen one or more recreational activities to engage in regularly from lots of things and I'm satisfied with those choices.

23. I don't think about dating much. I just kind of take it as it comes.

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.

25. I'm not really interested in finding the right job, any job will do. I just seem to flow with what is available.

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.

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.

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.

29. I don't have any real close friends, and I don't think I'm looking for one right now.

30. Sometimes I join in leisure activities, but I really don't see a need to look for a particular activity to do regularly.

31. I'm trying out different types of dating relationships. I just haven't decided what is best for me.

32. There are so many different political parties and ideals. I can't decide which to follow until I figure it all out.

33. It took me a while to figure it out, but now I really know what I want for a career.

34. Religion is confusing to me right now. I keep changing my views on what is right and wrong for me.

35. I've spent some time thinking about men's and women's roles in committed relationships and I've decided what will work best for me.

36. In finding an acceptable viewpoint to life itself, I find myself engaging in a lot of discussions with others and some self exploration.
37. I only pick friends my parent would approve of.

38. I've always liked doing the same recreational activities my parents do and haven't ever seriously considered anything else.

39. I only go out with the type of people my parents expect me to date.

40. I've thought my political beliefs through and realize I can agree with some and not other aspects of what my parents believe.

41. My parents decided a long time ago what I should go into for employment and I'm following through their plans.

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.

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.

44. My parents' views on life are good enough for me, I don't need anything else.

45. I've had many different friendships and now I have a clear idea of what I look for in a friend.

46. After trying a lot of different recreational activities I've found one or more I really enjoy doing by myself or with friends.

47. My preferences about dating are still in the process of developing. I haven't fully decided yet.

48. I'm not sure about my political beliefs, but I'm trying to figure out what I can truly believe in.

49. It took me a long time to decide but now I know for sure what direction to move in for a career.

50. I attend the same church as my family has always attended. I've never really questioned why.

51. There are many ways that couples in committed relationships can divide up family responsibilities. I've thought about lots of ways, and not I know exactly how I want it to happen for me.

52. I guess I just kind of enjoy life in general, and I don't see myself living by any particular viewpoint to life.

53. I don't have any close friends. I just like to hang around with the crowd.

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.

55. I've dated different types of people and know exactly what my own "unwritten rules" for dating are and who I will date.

56. I really have never been involved in politics enough to have made a firm stand one way or the other.

57. I just can't decide what to do for an occupation. There are so many possibilities.

58. I've never really questioned my religion. If it's right for my parents it must be right for me.

59. Opinions on men's and women's roles seem so varied that I don't think much about it.

60. After a lot of self-examination I have established a very definite view on what my own life style will be.

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.

62. All of my recreational preferences I got from my parents and I haven't really tried anything else.

63. I date only people my parents would approve of.

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.

EXPERIENCES IN CLOSE RELATIONSHIP SCALE – SHORT FORM (ECR-S)

(Wei, Russell, Mallinckrodt, & Vogel, 2007)

Instruction: The following statements concern how you feel in romantic relationships. We are interested in how you generally experience relationships, not just in what is happening in a current relationship. Respond to each statement by indicating how much you agree or disagree with it. Mark your answer using the following rating scale:

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6	7

1. It helps to turn to my romantic partner in times of need.

2. I need a lot of reassurance that I am loved by my partner.

3. I want to get close to my partner, but I keep pulling back.

4. I find that my partner(s) don't want to get as close as I would like.

5. I turn to my partner for many things, including comfort and reassurance.

6. My desire to be very close sometimes scares people away.

7. I try to avoid getting too close to my partner.

8. I do not often worry about being abandoned.

9. I usually discuss my problems and concerns with my partner.

10. I get frustrated if romantic partners are not available when I need them.

11. I am nervous when partners get too close to me.

12. I worry that romantic partners won't care about me as much as I care about them.

LEVEL SUBSCALE OF THE MOOD SURVEY (MS)

(Underwood & Froming, 1980)

Below are a number of statements about your experience of moods. We would like you to consider your usual behavior when you respond. Using the scale, indicate the appropriate number to the right of each question and try to be as honest as you can.

1	Strongly Disagree	4	Slightly Agree
2	Disagree	5	Agree
3	Slightly Disagree	6	Strongly Agree

1. 1 usually feel quite cheerful.

2. 1 generally look at the sunny side of life.

3. I'm not often really elated. (Reverse Scored)

4. 1 usually feel as though I'm bubbling over with joy.

5. I consider myself a happy person.

6. Compared to my friends, I think less positively about life in general. (Reverse Scored)

7. 1 am not as cheerful as most people. (Reverse Scored)

8. My friends often seem to feel I am unhappy. (Reverse Scored)

INTERPERSONAL COMMUNICATION INVENTORY (ICI)

(Bienvenu, 1971)

These following questions refer to persons *other than your family members or relatives*.

- Please answer each question as quickly as you can according to the way you feel *at the moment* (not the way you usually feel or felt last week).
- Please do not consult anyone while completing this inventory. You may discuss it with someone after you have completed it.
- Honest answers are very necessary. Please be as frank as possible, since your answers are confidential.
- Circle the word on the right to show how the question applies to your situation.

1. Do your words come out the way you would like them to in conversation?

   YES   NO   SOMETIMES

2. When you are asked a question that is not clear, do you discuss the matter with that person?   YES   NO   SOMETIMES

3. When you are trying to explain something, do other persons have a tendency to put words in your mouth?   YES   NO   SOMETIMES

4. Do you merely assume the other person knows what you are trying to say without explaining what you really mean?   YES   NO   SOMETIMES

5. When in a discussion, do you attempt to find out how you are coming across by asking for feedback?   YES   NO   SOMETIMES

6. It is difficult for you to converse with other people? YES   NO   SOMETIMES

7. Do you find it very difficult to become interested in other people?

   YES   NO   SOMETIMES

8. Do you find it difficult to express your ideas when they differ from those around you?   YES   NO   SOMETIMES

9. In conversation, do you try to put yourself in the other person's shoes?

   YES   NO   SOMETIMES

10. In conversation, do you have a tendency to do more talking than the other person?

    YES   NO   SOMETIMES

11. Are you aware of how your tone of voice may affect others?

    YES   NO   SOMETIMES

12. When you are angry, do you admit it when asked by someone else?

    YES   NO   SOMETIMES

13. Is it very difficult for you to accept constructive criticism from others?

    YES   NO   SOMETIMES

14. Do you have a tendency to jump to conclusions in your interactions with others?

    YES   NO   SOMETIMES

15. Do you later apologize to someone whose feelings *you* may have hurt?

16. Does it upset you a great deal when someone disagrees with you?
                                                                    YES   NO   SOMETIMES

17. When someone has hurt your feelings, do you discuss the matter with that person?   YES   NO   SOMETIMES

18. Do you avoid disagreeing with others because you are afraid they will get angry?
                                                                    YES   NO   SOMETIMES

19. When a problem arises between you and another person, are you able to discuss it without losing control of your emotions?   YES   NO   SOMETIMES

20. Are you satisfied with the way you settle differences with others?
                                                                    YES   NO   SOMETIMES

21. Do you pout and sulk for a long time when someone upsets you?
                                                                    YES   NO   SOMETIMES

22. In meaningful conversation, are you aware of how you are feeling and reacting to what the other person(s) is saying?   YES   NO   SOMETIMES

23. Do you have difficulty trusting other people? YES   NO   SOMETIMES

24. In attempting to settle a misunderstanding, do you remind yourself that the other person could be right?   YES   NO   SOMETIMES

25. Do you deliberately try to conceal your faults from others?
                                                                    YES   NO   SOMETIMES

26. Do you help others to understand you by saying how you think, feel, and believe?
                                                                    YES   NO   SOMETIMES

27. Is it difficult for you to confide in people?   YES   NO   SOMETIMES

28. Do you have a tendency to change the subject when your feelings enter into a discussion?   YES   NO   SOMETIMES

29. In conversation, do you let the other person finish talking before reacting to what he/she says?   YES   NO   SOMETIMES

30. Do you find yourself not paying attention while in conversation with others?
                                                                    YES   NO   SOMETIMES

31. Do you ever try to listen for meaning when someone is talking?
                                                                    YES   NO   SOMETIMES

32. Do others seem to be listening when you are talking?
                                                                    YES   NO   SOMETIMES

33. In a discussion, is it difficult for you to see things from the other person's point of view?   YES   NO   SOMETIMES

34. Do you pretend you are listening to others when actually you are not really listening?   YES   NO   SOMETIMES

35. In conversation, can you tell the difference between what a person is saying (her/his words) and what he/she may be feeling? YES   NO   SOMETIMES

36. While speaking, are you aware of how others may be reacting to what you are saying?   YES   NO   SOMETIMES

37. Do you feel that other people wished you were a different kind of person?
                                                                    YES   NO   SOMETIMES

38. Do other people fail to understand your feelings? YES NO SOMETIMES
39. Can you tell what kind of day another person may be having by observing her/him? YES NO SOMETIMES
40. Do you admit that you are wrong when you know that you are wrong about something? YES NO SOMETIMES

APPENDIX G

PERSONAL POWER AND POSSIBILITY SCALE (PPPS)

Below are a number of statements about your beliefs about yourself. Please read each statement carefully and decide how much you agree or disagree with the statement. Using the scale, indicate the appropriate number to the right of each question and try to be as honest as you can.

1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

1. If I don't succeed on the first try, I still believe that I am capable of accomplishing the task.
2. I believe that I have multiple options for the direction of my life.
3. I do not believe that I am able to handle difficulties in my life.
4. I am open to trying something new if I think it might be beneficial.
5. My life is out of control.
6. I believe that I cannot get out of my situation.
7. I believe that I can persevere through difficulties to achieve my goals.
8. I tend to think about my life as if I am the author in the story of my life.
9. I have choices in what I want my life to be like.
10. I believe that others have more control of my life than I do.
11. I believe that my life is like "a train that can only go to one destination".
12. I believe that my success is from my own effort.
13. When people describe me different than the way I see myself, I am open to consider their perspective.
14. My life is controlled by random occurrences.
15. I tend to think about my life as if I am viewing myself like a character in a story that someone else is writing.
16. I believe that there are several possible paths for my future.
17. My future is like chapters of my life that I have not yet written.
18. When I get frustrated, I stop trying.
19. When something negative happens in my life, I am able to make meaning out of it.
20. I am able to choose which path I take in life.
21. If I am not having success, I am willing to consider other possible ways to succeed.

DEMOGRAPHIC QUESTIONNAIRE

Age: _____

Biological Sex   Male   Female   Other: _____

Ethnicity (circle all that apply):   African American or Black   American Indian or Alaska Native

      Asian American   European American or White   Hispanic

      Native Hawaiian or Pacific Islander   Hispanic   Other: _____

Sexual Orientation: _____

Relationship Status: Single   Dating (Less than 3 months)

      Committed Relationship (More than 3 months)   Married

Have you ever been in a committed romantic relationship?   YES   NO

How much do you agree or disagree with the following statement: "Organized religion is very important to me."

Strongly disagree   Disagree   Neither agree nor disagree   Agree   Strongly agree

How often are you involved in religious activities (i.e. attending services, participating in activities with other religious believers, etc.)?

Daily (7x a week)   Weekly (4x a month)   A couple of times a month (2x a month)

A few times a year (5x a year)   Rarely (1-2x a year)   Never

Academic Year: Freshman   Sophomore   Junior   Senior   Post-Baccalaureate

Academic Major: _____

Greek Status: Never   Not currently but in the past   Yes, currently greek

Athletic Involvement: None   Recreational or Intramural   Club
      Collegiate

APPENDIX I

PERMISSION TO USE THE EXTENDED OBJECTIVE MEASURE OF EGO
IDENITY STAUTS – II (EOMEIS-II)

[EMAIL CORRESPONDENCE]

July 25, 2012

You have my permission.
Gerald Adams
PS: Good luck.

On 2012-07-25, at 8:00 PM, Ben Willis wrote:

> Dr. Adams,
>
> My name is Ben Willis, and I am a counselor and doctoral student in Counseling and
Counselor Education. I am doing my dissertation research on identity and would like to
include the Extended Objective Measure of Ego Identity Status (EOMEIS-2) as one of
the instruments in the study. I am emailing you to try and get your permission to use the
EOMEIS-2 and to find out if there is any fee associated with the instrument.
>
> Thank you for your time and help with this,
>
> Ben
>
> Benjamin Willis, M.S., Ed.S., NCC, LPCA
> Counselor and Doctoral Student
> The University of North Carolina at Greensboro
> Fisher Park Counseling, PLLC

Using the EOMEIS-2

Gerald R. Adams < >   Thu, Nov 29, 2012 at 11:23 AM
To: btwillis@uncg.edu

You have my permission to make such changes to the EOMEIS-II for your dissertation study.
Gerald R. Adams

Date: Thu, 29 Nov 2012 10:46:44 -0500
Subject: Re: Using the EOMEIS-2
From: btwillis@uncg.edu
CC: cscashwe@uncg.edu

Dr. Adams,

I appreciate your permission to use the EOMEIS-II for my dissertation study. I recently completed the pilot study and received overall positive feedback from the pilot study.

From my dissertation proposal, my dissertation committee has asked me to ask for your permission to complete my full dissertation study with a change in the EOMEIS-II in changing the word "marriage" to "committed relationships" in items 11, 19, 35, and 51. May I have your permission to complete the full dissertation study with that change in the EOMEIS-II?

Thank you for your time, help, and response.

Ben

Benjamin Willis, M.S., Ed.S., NCC, LPCA
Counselor and Doctoral Candidate
The University of North Carolina at Greensboro
Fisher Park Counseling, PLLC

APPENDIX J

PERMISSION TO USE THE DIFFERENTIATION OF SELF INVENTORY –
REVISED (DSI-R)

[EMAIL CORRESPONDENCE]

July 25, 2012

Hi Ben,

There is no fee for use of the DSI…it simply may not be reproduced in your thesis document due to copyright restrictions.

All the best with your project! Elizabeth

From: bentwillis@gmail.com [mailto:bentwillis@gmail.com] **On Behalf Of** Ben Willis
Sent: Wednesday, July 25, 2012 5:19 PM
To: eas14@psu.edu
Subject: Using the DSI-R

Dr. Skowron,

My name is Ben Willis, and I am a counselor and doctoral student in Counseling and Counselor Education. I am doing my dissertation research on identity and would like to include the Differentiation of Self Inventory-Revised as one of the instruments in the study. I am emailing you to try and get your permission to use the DSI-R and to find out if there is any fee associated with the instrument.

Thank you for your time and help with this,

Ben

Benjamin Willis, M.S., Ed.S., NCC, LPCA
Counselor and Doctoral Student
The University of North Carolina at Greensboro
Fisher Park Counseling, PLLC

APPENDIX K

PERMISSION TO USE THE EXPERIENCES IN CLOSE RELATIONSHIP SCALE –
SHORT FORM (ECR-S)

[EMAIL CORRESPONDENCE]

October 1, 2012

Please feel free to use it…..please see my website to access the scale and scoring information.

http://wei.public.iastate.edu/

From: bentwillis@gmail.com [mailto:bentwillis@gmail.com] **On Behalf Of** Ben Willis
Sent: Monday, October 01, 2012 10:25 AM
To: wei@iastate.edu
Subject: Permission to use the ECR-S

Dr. Wei,

My name is Ben Willis, and I am a counselor and doctoral student in Counseling and
Counselor Education. I am doing my dissertation research on identity and would like to
include the Experiences in Close Relationships Scale-Short Form as one of the
instruments in the study. I am emailing you to try and get your permission to use the
ECR-S and to find out if there is any fee associated with the instrument.

Thank you for your time and help with this,

Ben

Benjamin Willis, M.S., Ed.S., NCC, LPCA
Counselor and Doctoral Student
The University of North Carolina at Greensboro
Fisher Park Counseling, PLLC

APPENDIX L

PERMISSION TO USE THE MOOD SURVEY (MS)

[EMAIL CORRESPONDENCE]

July 25, 2012

Ben,
Please feel free to use the Mood Survey. There is no fee associated with using it. All of
the validity data we collected is in the original paper.
Good luck with it.
Bill

William J. Froming, Ph. D.
Vice-President for Academic Affairs
Palo Alto University
1791 Arastradero Road
Palo Alto, CA 94304
e-mail: wfroming@paloaltou.edu
phone: 650-433-3830
Executive Assistant: Liesl Violante (lviolante@paloaltou.edu)
phone: 650-433-3831

On Wed, Jul 25, 2012 at 4:59 PM, Ben Willis <btwillis@uncg.edu> wrote:
Dr. Froming,

My name is Ben Willis, and I am a counselor and doctoral student in Counseling and
Counselor Education. I am doing my dissertation research on identity and would like to
include your Mood Survey as one of the instruments in the study. I am emailing you to
try and get your permission to use the Mood Survey and to find out if there is any fee
associated with the instrument. I am also interested in any further validity and reliability
information that you have on the instrument or a manual with that information.

Ben

Benjamin Willis, M.S., Ed.S., NCC, LPCA
Counselor and Doctoral Student
The University of North Carolina at Greensboro
Fisher Park Counseling, PLLC

PERMISSION TO USE THE INTERPERSONAL COMMUNICATION
INVENTORY (ICI)

[WRITTEN COMMUNICATION]

Received the week of September 16th, 2012

Dr. Millard Bienvenu
111 E 5th St
Natchitoches, LA 71457

September 13th, 2012

Dear Dr. Bienvenu,

My name is Ben Willis, and I am a doctoral student in Counseling and Counselor
Education. I am interested in using the Interpersonal Communication Inventory
as I am doing my dissertation research on identity. I am writing you to try and get
your permission to use the ICI and to find out if there is any fee associated with
the instrument.

Thank you for your time and help with this,

Ben

Benjamin Willis, M.S., Ed.S., NCC, LPCA
Counselor and Doctoral Student
The University of North Carolina at Greensboro
Fisher Park Counseling, PLLC
btwillis@uncg.edu
(336) 430-2679

2308 Fernwood Dr.
Greensboro, NC 27408

Hi Ben,
Permission granted - no fee!
Best wishes,
MB

[WRITTEN COMMUNICATION]

Received the week of December 10th, 2012

Dr. Millard Bienvenu
111 E. 5th St.
Natchitoches, LA 71457

December 6th, 2012

Dear Dr. Bienvenu,

Thank you for giving me permission earlier to use the Interpersonal Communication Inventory in my dissertation study! I have completed the pilot study with 33 people and am looking forward to using it in the full dissertation study with at least 300 people. I received some feedback while I was proposing my dissertation, and my dissertation committee has asked me for your permission to complete my full dissertation study with a change in the ICI by changing where the pronouns "he" is written to "he/she." May I have your permission to make this change in the instrument for use in my dissertation study?

As there were significant findings in the pilot study using your instrument to measure communication, I am hoping to be able to use the ICI in future studies as well. I appreciate your quick response in the past and for allowing me to use your instrument!

Happy Holidays!

Ben

Benjamin Willis, M.S., Ed.S., NCC, LPCA
Counselor and Doctoral Candidate
The University of North Carolina at Greensboro
Fisher Park Counseling, PLLC
btwillis@uncg.edu
(336) 430-2679

2308 Fernwood Dr.
Greensboro, NC 27408

Permission granted Ben.
Thanks,
MB

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APPENDIX N

PERMISSION TO USE FIGURE 1 (THE IDENTITY PROCESS, WITH THREE
SUBPROCESSES OPERATIVE WITHIN A SURROUND)

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Author:	Eric M. Eisenberg
Publication:	Journal of Communication
Publisher:	John Wiley and Sons
Date:	Jan 10, 2006
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APPENDIX O

PILOT STUDY RESULTS

Participants in the pilot study included 33 undergraduate students in two different

counseling courses. All eligible students elected to participate in the pilot study. There

were three students who did not meet the inclusion criteria and did not complete the

survey packet.   The complete demographic information of the sample is provided in

Table 13.

Table 13

Demographic Data of the Pilot Study Sample (N=33)

Variable	**M/SD**	**_n_**	**%**
AGE	21.1/1.80		
BIOLOGICAL SEX			
Female		29	87.9
Male		4	12.1
Other		0	0.0
RACE*			
African American or Black		12	36.4
American Indian or Alaska Native		1	3.0
Asian American		1	3.0

Table 13

Demographic Data of the Pilot Study Sample (continued)

Variable	M/SD	*n*	%
European American or White		21	63.6
Hispanic		2	6.1
Native Hawaiian or Pacific		0	0.0
Islander			
Other		0	0.0
YEAR			
Freshman		5	15.2
Sophomore		2	6.1
Junior		11	33.3
Senior		15	45.4
Post-Baccalaureate		0	0.0
ACADEMIC MAJOR**			
Business Administration		1	3.0
Communication Studies		1	3.0
Community and Therapuetic		2	6.1
Recreation			
Elementary Education		1	3.0

Table 13

Demographic Data of the Pilot Study Sample (continued)

Variable	M/SD	n	%
Human Development and Family Studies		5	15.2
Music		1	3.0
Nursing		4	12.1
Nutrition		9	27.3
Political Science		1	3.0
Psychology		4	12.1
Public Health		1	3.0
Social Work		1	3.0
Speech Pathology		2	6.1
Undecided		1	3.0

* One student identified as African-American or Black, American Indian or Alaska Native, European American or White, and Hispanic, and another student identified as European American or White and Hispanic; therefore, the sum of the percentages is over 100%.
** One student was a Nursing and Psychology double major; therefore the sum of the percentages is over 100%.

The pilot study sample was mostly female ($n = 29$, 87.9%) and European American or White ($n = 21$, 63.6%), although there was a substantial portion of African American or Black participants in the sample ($n = 12$, 36.4%). Most of the participants were juniors ($n = 11$, 33.3%) or seniors ($n = 15$, 45.5%), and the most common major was nutrition ($n = 9$, 27.3%). There were 14 majors, at least 5 races, all academic years,

and every age in the emerging adult demographic (18-25) represented in the sample. Each participant completed the survey packet consisting of the EOMEIS-II, ECR-S, DSI-R, Level subscale of the MS, ICI, PPPS, Demographic Questionnaire, and the Pilot Study Feedback Form. The descriptive statistics for each of the instruments/scales are provided in Table 14.

The first research hypothesis (that significant correlations would be found between mood level, personal narrative, communication, attachment-related anxiety, attachment-related avoidance, level of differentiation, and identity status such that there would be positive correlations between mood level, personal narrative, communication, differentiation of self, and identity status and negative correlations between attachment-related anxiety and attachment-related avoidance with mood, personal narrative, communication, differentiation of self, and identity status) was analyzed by creating a correlation matrix (see Table 15). There were significant, positive relationships between identity achievement and differentiation of self ($r = .47$, $p < .01$), identity achievement and mood level ($r = .66$, $p < .01$), identity achievement and communication ($r = .49$, $p < .01$), identity achievement and personal narrative ($r = .77$, $p < .01$), attachment-related anxiety and attachment-related avoidance ($r = .46$, $p < .01$), differentiation of self and mood level ($r = .48$, $p < .01$), differentiation of self and communication ($r = .71$, $p < .01$), mood level and communication ($r = .41$, $p < .05$), mood level and personal narrative ($r = .71$, $p < .01$), and communication and personal narrative ($r = .39$, $p < .05$).

Table 14

Descriptive Statistics for Pilot Study Instruments

Instrument/Subscale	M	SD	α	# of items
ID	48.72	10.03	.75	16
IF	38.22	11.98	.87	16
IM	51.88	10.35	.75	16
IA	69.13	9.25	.67	16
Attachment-related Anxiety	23.48	8.55	.73	6
Attachment-related Avoidance	15.06	6.36	.72	6
DSI-R	168.39	34.82	.92	46
IP	34.39	12.76	.81	11
EC	45.36	9.79	.87	12
ER	51.42	12.99	.89	11
FO	37.21	10.53	.80	12
MS	34.09	7.51	.87	8
ICI	79.39	17.86	.89	40
PPPS	84.67	11.52	.84	21

There were also significant, negative correlations between identity diffusion and

communication ($r = -.42$, $p < .05$) and attachment-related avoidance and differentiation of

self ($r = -.47$, $p < .01$). Also, there was a significant correlation between identity

diffusion and identity moratorium (r = .41, p < .05). There were 39 hypothesized significant correlations, and 14 significant correlations. Each of the significant correlations were in the direction that was hypothesized.

For the second research hypothesis (that a statistically significant portion of variance of identity status would be explained by mood level, personal narrative, communication, attachment-related anxiety, attachment-related avoidance, and differentiation of self), four linear multiple regressions were completed. The full results of the analysis are reported in Table 16. Three of the four regressions were not significant, although the linear regression for identity achievement was significant ($F_6 =$ 12.927, $R^2 = .764$, p < .01). The strongest predictors in the linear regression for identity achievement were personal narrative and differentiation of self. These results have limited utility, however, as they are based on such a small sample size.

For the third research hypothesis (that a statistically significant difference between men and women would be found in the subscales of emotional cutoff [males statistically higher than females] and emotional reactivity [females statistically higher than males], and there would not be a statistically significant difference found between men and women on the subscale scores of I-position and fusion with others), an Analysis of Variance (ANOVA) was completed (see Table 17). There were not any significant differences between men and women in the pilot study. Therefore, the hypothesis was partly supported as it was hypothesized that there would be no difference between men and women on the I-position and fusion with others scores.

Table 15

Correlation Matrix of Identity Status, Attachment, Differentiation, Mood, Communication, and Personal Narrative

	IF	IM	IA	A-R Anxiety	A-R Avoidance	DSI-R	Level of MS	ICI	PPPS
ID	-.05	.41*	-.10	-.11	-.20	-.15	-.21	-.42*	-.20
IF		.01	-.02	-.01	.11	.06	.25	.03	.03
IM			-.06	.17	.09	-.28	-.19	-.17	-.03
IA				-.02	-.17	.47*	.66*	.49*	.77*
A-R Anxiety					.46*	-.44*	-.22	-.22	.01
A-R Avoidance						-.47*	-.32	-.36*	-.19
DSI-R							.48*	.71*	.34
Level of MS								.41*	.71*
ICI									.39*

* Significant at p < .05 (2-tailed)

Because of the small sample size for the pilot study, this research question will be maintained for the full study.

For the last research hypothesis (that using different linear regressions for men and women would better predict identity status than using one linear regression of men and women combined to predict identity status), eight linear multiple regressions were completed.

Table 16

Pilot Study Identity Statuses Explained by Predictors of Attachment, Differentiation, Mood, Communication, and Personal Narrative

Variable	B	SE B	F	R^2	p
ID			2.30	.37	.07
A-R Anxiety	-.037	-.033			
A-R Avoidance	-.588	-.392			
DSI-R	.080	.284			
Level of MS	-.383	-.294			
ICI	-.350	-.646			
PPPS	.116	.136			
IF			.80	.17	.58
A-R Anxiety	.037	.027			
A-R Avoidance	.403	.216			
DSI-R	-.008	-.023			
Level of MS	.942	.581			
ICI	-.012	-.018			
PPPS	-.366	-.346			
IM			.44	.10	.85
A-R Anxiety	.059	.052			
A-R Avoidance	-.152	-.098			
DSI-R	-.057	-.195			
Level of MS	-.404	-.302			
ICI	.024	.043			
PPPS	.217	.248			
IA			12.93	.76	<.01
A-R Anxiety	.160	.151			
A-R Avoidance	.065	.045			
DSI-R	.092	.338			
Level of MS	.118	.094			
ICI	.051	.098			
PPPS	.488	.598			

Table 17

ANOVA Table for Differences Between Men and Women on the Subscales
of Differentiation of Self

Variable	F	df_1	df_2	p
I Position	.16	1	31	.70
Emotional Cutoff	.12	1	31	.73
Emotional Reactivity	.62	1	31	.44
Fusion with Others	.09	1	31	.77

Due to the small sample size and the disproportionate amount of men and women with much fewer men than women, there were insufficient degrees of freedom to be able to complete the multiple regressions for the men. Therefore, only the regressions for the women were run, and the statistics are reported in Table 18. The findings were similar to when men and women were included in the same group, although some of the p values and standardized coefficients shifted when only looking at women. Because the pilot study, with a small sample size, provided no evidence to preclude RQ4, it will be analyzed in the full study.

Table 18

Pilot Study Identity Statuses of Women Explained by Predictors of Attachment, Differentiation, Mood, Communication, and Personal Narrative

Variable	B	SE B	F	R^2	p
ID			2.177	.395	.089
A-R Anxiety	-.094	-.084			
A-R Avoidance	-.554	-.374			
DSI-R	.090	.307			
Level of MS	-.377	-.265			
ICI	-.438	-.837			
PPPS	.381	.367			
IF			.521	.135	.786
A-R Anxiety	.207	.151			
A-R Avoidance	.189	.104			
DSI-R	-.058	-.161			
Level of MS	.763	.440			
ICI	.087	.136			
PPPS	-.442	-.349			
IM			1.058	.241	.419
A-R Anxiety	-.059	-.051			
A-R Avoidance	.044	.028			
DSI-R	-.161	-.523			
Level of MS	-.556	-.375			
ICI	.144	.263			
PPPS	.553	.511			
IA			11.703	.778	<.001
A-R Anxiety	.132	.124			
A-R Avoidance	.092	.065			
DSI-R	.129	.462			
Level of MS	.244	.181			
ICI	-.019	-.038			
PPPS	.495	.501			

APPENDIX P

PILOT STUDY FEEDBACK FORM

Please complete this short form when you finish the survey packet. Note any changes that

you see would make the process better. Your feedback is very helpful.

1) How long did it take you to complete the surveys?   _____

2) Were the instructions clear and easy to follow? If no, please explain:

_____

_____

_____

_____

3) If any questions were difficult to understand, please comment and state which page of

the survey they were located.

_____

_____

_____

_____

4) Do you have any further thoughts on ways to improve the study?

_____

_____

_____

_____