Identity Development: Implications for Intimacy in Emerging Adulthood

by

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Abstract

Nationwide reports indicate loneliness is at epidemic levels, with younger demographics between the ages of 18-37 years old the most impacted (Cigna, 2020). Meaningful connections appear to work to decrease these reported feelings of loneliness (DiJulio et al., 2018; Cigna, 2020; Soulsby & Bennett, 2015), yet there are indications that Americans are feeling less connected (Cigna, 2020). This highlights the need to explore the underlying factors impacting individuals' abilities to make meaningful connections. According to Erikson (1959), identity development in adolescence is critical to intimacy development in emerging adulthood, suggesting that a failure to form healthy identities and intimate relationships may lead to stereotypical or superficial relationships and feelings of isolation (Boyd & Bee, 2006). The purpose of this study was to explore the implications of identity development on intimacy development in emerging adults. Additionally, this study sought to examine whether intimacy development corresponded to lower levels of reported loneliness and higher reports of quality of relationships in emerging adults. The study found identity level to be a predictor of level of intimacy. Additionally, the study found levels of intimacy development to be a predictor of lower levels of loneliness and higher quality of relationships. These findings underscore the implications of intimacy development on overall well-being and suggest that counselors may need to consider clients' identity development when treating issues with intimacy in emerging adults.

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I was once told that if you look back at your life, you realize that there were several critical moments, that if just one were missing, you might not be at the spot you are now. I am especially thankful for the people that made up many of these moments as they have allowed me the opportunity to accomplish the single most challenging and rewarding personal and professional goal of my life.

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Chapter 1

Introduction

Social support has long been a preferred coping strategy prescribed by counseling professionals. Stronger social support can act as a buffer against stressors and is associated with overall health and well-being (Cohen & Wills, 1985; Bowen et al., 2014; Umberson & Montez, 2010). Specifically, stronger social relationships appear to improve life expectancy rates by 50% (Holt-Lunstad et al., 2010). This impact is parallel to the negative effect smoking and alcohol consumption have on life expectancy rates. Close, personal relationships, in-person interactions in particular, seem to be the most impactful on reported feelings of loneliness and social isolation (Cigna, 2020). However, despite the overwhelming evidence of the need and benefits of social support, we are seeing Americans continue to disengage. Currently, more than a quarter of Americans live alone, a rate that was only just over 5% in the 1960's (U.S. Census Bureau, 2020). Adults are becoming increasingly socially isolated, lacking meaningful connections with others, which is a key indicator often linked to loneliness (DiJulio et al., 2018; Cigna, 2020). This rising trend is garnering national attention with U.S. Surgeon General, Vivek Murthy, recently describing it as a loneliness epidemic (Weissbourd et al., 2021).

There are several cultural factors that are likely impacting these growing rates of loneliness and isolation. Changing marital norms in the United States may be a key contributor. Marriage rates in young adults have taken a sharp decline since the late 1970's. A little over one-fifth of women and one-quarter of men aged 35-44 years have never been married, and young adults, in general, are waiting longer than ever before marrying (United States Census Bureau, 2021). Additionally, Americans are relying more and more on technology for social interactions (Vogels, 2019), with adults spending an average of 10-and-a-half hours a day on some form of

media (Nielson, 2018). Many Americans attribute social isolation and feelings of loneliness to a reliance on technology (DiJulio et al., 2018), indicating that technology may just be an illusion of connection. The recent COVID-19 pandemic acted as an inadvertent social experiment as to whether society could effectively maintain social support largely through online platforms. Recent reports indicate that, with the exception of family support, levels of perceived social support declined during the pandemic (Li et al., 2021), and levels of loneliness continued to rise (Weissbourd et al., 2021; Lee et al., 2020; Liu et al., 2020).

Mental and Physical Health Impact of Loneliness and Social Isolation

There is a growing concern on the effects of social isolation and loneliness on both physical and psychological health. As noted, recent studies indicate a rise in Americans that say they felt lonely, with younger adults reportedly the most impacted (Cigna, 2020). Loneliness differs from social isolation in that it is one's perception of rather than actual state of social isolation (Hawkley & Capitanio, 2015). Cigna (2020) noted an increase from their previous report in participants identifying with several key statements on the University of California, Los Angeles (UCLA) Loneliness Scale (Russell, 1996) on negative moods which support loneliness as a perception of social isolation. Among participants in the most recent study, 38% reported not having close relationships, and 58% reported "they always or sometimes feel like no one knows them well," an increase of 4% from the previous report. Furthermore, 48% of participants indicated that they "always or sometimes feel isolated from others" (up 5%). Participants (47%) also reported not having meaningful relationships (up 4%), with 45% saying "they sometimes or always feel that they are no longer close to anyone" (up 6%) (Cigna, 2020, p. 4).

In addition to these concerning trends in social isolation and loneliness, there are indications that loneliness can negatively impact mental and physical health (DiJulio et al., 2018). For example, those experiencing loneliness are at a greater risk for depression (Lee et al.,

2020; Liu et al., 2020), with increasing rates of major depressive episodes among emerging adults supporting this link (SAMHSA, 2019). Social isolation and reported loneliness, in many cases, has been associated with early mortality (Holt-Lunstad et al., 2015). In her testimony before the U.S. Senate, Julianne Holt-Lunstad, neuroscience and psychology professor at Brigham Young University, referenced a large-scale meta-analytic review spanning from January 1980 to February 2014 showing a 29% increased mortality rate in those who were socially isolated, a 26% increase in those reported as lonely, and a 32% increase in those living alone (*Aging Without Community: The Consequences of Isolation and Loneliness*, 2017; Holt-Lunstad et al., 2015).

Factors Contributing to Social Isolation and Loneliness

Loneliness and social isolation are having a negative impact on emerging adults, a developmental period defined by Arnett (2000) following adolescence spanning from approximately 18-25 years old. Concerningly, there are indications that emerging adults are becoming less connected, having fewer of these meaningful connections that have proven to be so critical to quality and quantity of life. In just the last 50 years, there have been several cultural factors that have shifted the social landscape that, to some degree, may be responsible for the increasing rates of loneliness and social isolation. The patterns and platforms for establishing relationships are changing, and these changing dynamics may have serious implications on the developmental trajectory of healthy relationships potentially resulting in delays in relational development or unsuccessful development altogether. To mitigate or address these rising concerns among emerging adults, it is important to first understand what factors may be contributing to their relational development. This may include consideration of their social engagement and factors that may influence their ability to meaningfully connect.

Technology

Over the last decade, social interactions have increasingly shifted from face-to-face to online platforms. Ninety-three percent of Millennials, the demographic cohort born between 1981 and 1996 (Dimock, 2019), report owning a smartphone, and the majority are engaged in some form of social media (Vogels, 2019). Technology, often credited with its convenience and accessibility for social interactions, may be anything but social. There is growing research on the negative impact of technology on social relationships, and, in general, most Americans agree, with 58% associating increased technology use with loneliness and social isolation (DiJulio et al., 2018). For example, current research has identified a link between social media usage and increased depression in young adults (Lin et al., 2016).

Paralleling Lin et al.'s (2016) findings, research has also demonstrated that limiting time on social media platforms can result in self-reports of less loneliness and depression (Hunt et al., 2018). Several studies have postulated a rationale for this specific to social relationships and our capacity to engage in these relationships in such forums. From a sociological perspective, Dunbar (1992) introduced a theory based on research with primates. In it, he proposed a link between the size of the neocortex and the size of the interaction group. The following year, he suggested that humans too have a limited cognitive bandwidth specifically related to face-to-face social interactions (Dunbar, 1993). He posited that humans are able to reasonably manage only 150 relationships (Purves, 2008). Attempts to maintain relationships exceeding this number could lead to social and group instability (Zhou et al., 2005). A later study on Facebook data suggested that online interactions have similar cognitive constraints with findings demonstrating that online social networks and face-to-face offline networks were comparable (Dunbar, 2015).

Changes in Intimate Relationship Patterns

Sociability and connectedness are two factors that distinguish very happy people from very unhappy people. Very happy people are reportedly highly sociable, with both stronger romantic and social relationships (Diener & Seligman, 2002). However, relational patterns are continually evolving, and the newest patterns we are seeing may be impacting these levels particularly the changes we are seeing in how and when relationships are established. Singles are increasingly looking online to find connections with nearly half of 18- to 29-year-olds reporting having used a dating site or app (Anderson et al., 2020). Over half of Americans believe connections made from online dating are equally as successful as ones that began in person. Currently, a little over one-in-ten adults report having had a committed or marriage relationship from online dating. We know that making these commitments has its benefits. Marital status has consistently been shown to impact psychological health (Soulsby & Bennett, 2015). However, data indicate that adults are less willing to make these commitments (United States Census Bureau, 2021). In fact, adults are taking longer to marry, and fewer, in general, are getting married (United States Census Bureau, 2021). Overall marriage rates for both men and women have declined (men, 20 to 18 per 1,000 population; women, 18 to 17 per 1,000 population). The average age for first marriages is up approximately two years from 2008 to 2016 for both genders (men, 30 years old; women, 28 years old). A reported 59.7% of women and 70.9% of men aged 25-29 and 36.1% of women and 45.8% of men aged 30-34 years old have never married (United States Census Bureau, 2021).

Potential Impact of COVID-19 on Social Isolation and Loneliness

Given the recent global health crisis, with its direct implications on in-person interactions, social and relationship health, and physical and psychological health, understanding

these dynamics is more important than ever. Americans were first alerted to the threat of an emerging pandemic by the World Health Organization (WHO) in January of 2020 (WHO, 2020). SARS-CoV-2, the virus that causes the coronavirus disease 2019 (COVID-19), quickly began to spread and in March 2020, was officially labeled a pandemic (WHO, 2020). The Centers for Disease Control and Prevention's (CDC) first issued warnings of COVID-19 in America, soon followed by the CDC's recommended guidelines to include social distancing, quarantining if exposed, and state issued stay-at-home orders, all resulted in societal interactions becoming increasingly nonexistent. With many health and public officials stressing the importance of adherence to these protocols, social isolation was soon synonymous with safety, and limiting face-to-face interactions was strongly encouraged for the overall societal good (CDC, 2020). But the social distancing restrictions believed to slow the spread of one crisis may have in fact led to another (Weissbourd et al., 2021). Recent reports indicate that loneliness, social isolation, and depression in young adults increased because of the pandemic (Weissbourd et al., 2021; Lee et al., 2020; Liu et al., 2020).

Social Development and Social Intimacy

There are models of social development that help us understand the variables and factors that appear to impact how we develop and how well we develop social relationships and social intimacy. In Erik Erikson's (1959) theory on psychosocial development, he suggested that the formation of a healthy identity was a precursor to later intimacy (Boyd & Bee, 2006). Erikson believed that a failure to form a healthy identity in adolescence impacted the individual's ability to develop meaningful connections in adulthood (Boyd & Bee, 2006; Erikson, 1959). Adolescents or those in early adulthood who have yet to develop intimate relationships may instead settle for stereotypical or superficial relationships, which Erikson believed led to feelings of isolation (Erikson, 1968). In the process of operationally defining Erikson's ideas on identity

formation, James Marcia (1966) developed a status paradigm (Berzonsky et al., 2013). His identity status model is often described as an extension of Erikson's model (Meeus, 2011) and can be used to further explore identity development. These models can potentially provide counselors a framework for considering how best to support their clients in their development as it relates to the issues of identity and intimacy.

Erikson's Psychosocial Stages

Erikson (1959) believed human development was not restricted to just childhood and adolescence. He introduced eight psychosocial stages of development lasting from birth to old age (Erikson, 1959). Within each successive stage of development, he identified inner and outer conflicts, or crises, that must be successfully resolved for the development of a healthy personality. The personality, when confronted with these crises and able to weather successfully, emerges with resources for the next subsequent crisis. Erikson was careful not to confuse crisis with catastrophe. He rather meant for it to mean a critical period of both vulnerability and possibility (Erikson, 1968). The psychosocial stages include (1) trust vs. mistrust, (2) autonomy vs. shame and doubt, (3) initiative vs. guilt, (4) industry vs. inferiority, (5) identity vs. role confusion, (6) intimacy vs. isolation, (7) generativity vs. stagnation, and (8) ego integrity vs. despair (Erikson, 1959; 1968). The resulting outcome of each stage was either increased strength or maladjustment (Erikson, 1968). Successful resolution resulted in the acquirement of a corresponding virtue and the development of self-esteem which he defined as "a conviction that one is learning effective steps toward a tangible future [and] that one is developing a defined personality within a social reality which one understands" (Erikson, 1959, p. 95).

Erikson titled the stage following the conclusion of childhood identity vs. role confusion (Erikson, 1959). In this stage, adolescents are specifically tasked with understanding their own

unique individuality (Erikson, 1968). Erikson's view on the formation of a healthy identity was not limited to this stage of development but rather, he believed, developed throughout the lifespan. He suggested that the ego had a distinct method of synthesizing the self and defined ego identity as the awareness of this method and the resulting components of the self that remained the same and stable over time (Erikson, 1968). An emphasis in this stage is on the consolidation of social roles specifically how to integrate roles and skills acquired prior to this stage with society's ideals. Youth often have a preoccupation with how others view them and contrast this with their own view (Erikson, 1959). Adolescents may revisit crises from previous stages in an attempt to achieve continuity in their identity. Erikson notes that this integration is not merely "the sum of the childhood identifications…it is the inner capital accrued from all those experiences of each successive stage" (Erikson, 1959, p. 94). Identity is strengthened through sincere rather than superficial acknowledgement of one's accomplishments (Erikson, 1959). An adolescent who feels they cannot fit into roles deemed acceptable by society will often become defensive and respond by running from associated pressures including staying out at night, dropping out of school, quitting their job, withdrawing emotionally, or experiencing unusual moods. It is especially important that when a youth acts in these seemingly confused and delinquent ways, that those who mentor the adolescent or those in the justice system are careful to consider the circumstances unique to this stage of adolescence and not mislabel the adolescent based on their behaviors as these labels could later lead to the adolescent labeling themselves (Erikson, 1959). The thought is that with appropriate assessment and treatment, these behaviors will not have the same lasting implications in adolescence as they would in adulthood. The primary identity issue in this stage surrounds deciding on an occupation. The adolescent may lose their identity altogether, overidentifying with those in the in-crowd or becoming so

entrenched in a particular group, they exclude others that do not fit the group's stereotypes. This defensiveness is an attempt to manage the sense of confusion the adolescent may feel with their identity (Erikson, 1959). Successful completion of this stage includes the awareness of one's unique individuality and the stability of the self, the knowledge and integration of societal roles, and the acquisition of the virtue fidelity. An adolescent who is unsuccessful in this stage may fail to identify with societal roles (Beyers & Seiffge-Krenke, 2010).

Erikson believed successful adolescent identity development was necessary for real intimacy in adulthood (Boyd & Bee, 2006; Erikson, 1959). Erikson discussed intimacy as both sexual and psychological (Erikson, 1959). He defined relational intimacy as a fusing of two individual identities (Erikson, 1968). He described these identities as independent of but also interdependent on each other (Erikson, 1968), identities that are both autonomous and connected (Beyers & Seiffge-Krenke, 2010). Failure to develop a healthy identity and these meaningful connections, both in the platonic and romantic sense, have all sorts of implications on an individual relationally as well as physically and psychologically. Erikson believed that the search for identity often ended with misguided youth attempting to find their identity in their relationships. He believed that this often leads to sexual intimacy rather than a necessary emphasis on psychosocial intimacy (Erikson, 1968). An inability to form these healthy identities and intimate relationships may result in stereotypical relationships and feelings of isolation (Erikson, 1968). Young people with insecure identities, in an attempt to avoid intimacy, may respond with behaviors that are promiscuous, absent of the fusion necessary for true intimacy (Erikson, 1968). If an adolescent is unable to develop relational intimacy, Erikson believed a sort of replica to intimacy would develop known as distantiation. Individuals may act defensively, isolating themselves or rejecting or destroying anything they feel is a threat (Erikson, 1968). The

more secure one is in their identity, the more open one is to interpersonal intimacy (Erikson, 1959).

Marcia's Status Model

Marcia (1966) developed criteria and a continuum based on Erikson's model to assess for the status of ego identity development consisting of four points or statuses: identity achievement, identity moratorium, identity foreclosure, and identity diffusion. Erikson believed the choice of occupation and ideology were central to identity formation (Erikson, 1963). The criteria for determining one's identity status in Marcia's model is based on levels of crisis and commitment in occupation and ideology (Marcia, 1966), but the term crisis has since been replaced with high and low levels of exploration (Berzonsky et al., 2013). The processes of exploration (crisis) and commitment are necessary as the adolescent now "faced with the imminence of adult tasks…must relinquish the childhood position of being 'given to' and prepare to be the 'giver'" (Kroger & Marcia, 2011, p. 32). The exploration period involves the adolescent actively choosing between alternatives in terms of occupation and ideology (Marcia, 1966). Commitment involves the level of personal investment in this process. According to this model, identity achievement is characterized by high self-exploration followed by high commitment (Berzonsky et al., 2013). With decisions of ideology, past beliefs are likely evaluated and resolved leaving the adolescent with the freedom to act in accordance with those beliefs (Marcia, 1966). In terms of occupation, the adolescent will have made this decision regardless of if it deters from their parent's ideals. The adolescent is likely to remain stable despite sudden changes. Moratorium and foreclosure are two points that fall about midway on the continuum. Identity moratorium is characterized by high self-exploration and low commitment (Berzonsky et al., 2013). In moratorium, the adolescent is in a period of exploration (Marcia, 1966). The adolescent remains

unclear in their commitments, actively struggling to commit. They are concerned with common adolescent issues and are working to compromise between what they are capable of and with the goals of their parents and the demands of society. They may appear confused, often concerned with questions that, at times, may feel unresolvable. Identity foreclosure is characterized by low self-exploration and high commitment (Berzonsky et al., 2013). In foreclosure, the adolescent has made a commitment without a period of exploration (Marcia, 1966). The line between their parent's goals and their own are blurred. Their personality can be rigid with their beliefs about what they are to become based on what others expect of them, particularly their parents. Identity diffusion is characterized by low commitment and low self-exploration (Berzonsky et al., 2013). The adolescent has yet to decide on an occupation and is seemingly unconcerned with the task (Marcia, 1966). If an occupation is of interest, the adolescent may not be aware of what it entails on a day-to-day basis and may be easily swayed if another option is presented. With respect to ideology, the adolescent may seem disinterested or open to all.

Identity Achievement and Later Intimacy

Erikson believed healthy identity to be necessary to intimacy as "the condition of twoness is that one must first become oneself" (Erikson, 1982, p. 101). Exploring options in adolescence in the areas of work, love, and ideology, areas he believed necessary to the formation of identity, would result in the choice of a partner, work, and worldview (Arnett, 2015). One assumption in Erikson's theory is of developmental ordering, in other words, identity precedes intimacy, and the development of healthy intimacy is contingent on the development of a healthy identity (Erikson, 1968), and research supports identity achievement as an important developmental task for intimacy in emerging adults. Mitchell et al. (2021) found identity resolution in emerging adulthood to be predictive of intimacy in emerging adulthood with those scoring higher in

identity also scoring higher in intimacy. Weisskirch (2018) supported these findings with researchers additionally finding identity development to be linked to well-being with those scoring high on intimacy also reporting feeling less lonely and happier. Sneed et al. (2012) found both identity and intimacy development in college predicted satisfaction in midlife. However, contrary to previous studies, Sneed et al. (2012) did not find identity to be predictive of intimacy over time. In a study looking specifically at identity status and later intimacy, Johnson et al. (2012) found higher identity statuses to be predictive of higher intimacy in romantic relationships in emerging adults. Moreover, identity and romantic intimacy were both found to be associated with well-being. Most notably, in a reevaluation of data from a pre-existing longitudinal study, Beyers and Seiffge-Krenke (2010) found ego achievement by age 15 to be positively correlated with intimacy at age 25. Participants' ego development increased at a steady rate from adolescence to adulthood. At the study's onset, 32% of the participants reported being in romantic relationships with an average duration of 5.1 months. By aged 25, 62% reported partnerships averaging 3.2 years.

It is important to note that issues with identity formation in adolescence may not necessarily be indicative of issues with intimacy across the lifespan. Findings suggest psychosocial development may look less linear throughout the lifespan, like an image of climbing a ladder, and more like a matrix (Whitbourne et al., 2009). In other words, psychosocial issues typical to one age and stage may be experienced at an earlier age or revisited at a later age. Emerging adults who have yet to successfully resolve the identity stage have been shown to later experience faster growth rates in their thirties and through middle adulthood in the intimacy domain suggesting that one may be able to make up for lost time (Mitchell et al., 2021). Similar findings support this idea of "catching up" (Whitbourne et al., 2009). The implications are that

those adolescents and emerging adults whose developmental trajectory is not as expected, according to Erikson's model, may have time to still gain experiences to encourage successful resolution of these two stages (Mitchell et al., 2021). Counselors may want to consider their client's development when discussing treatment options for issues concerning identity and intimacy (Marcia & Josselson, 2013).

Research Purpose and Significance

There have been concerning trends related to social isolation and loneliness. This includes indications that loneliness and social isolation have increased significantly for young adults (U.S. Census Bureau, 2020; DiJulio et al., 2018; Cigna, 2020) only to be even more intensified during the COVID-19 pandemic (Weissbourd et al., 2021; Lee et al., 2020; Liu et al., 2020). It is also clear that these trends may correspond to negative impacts on physical health (Holt-Lunstad et al., 2015; DiJulio et al., 2018). Furthermore, we understand that individuals reporting loneliness may also experience psychological issues including depression (Lee et al., 2020; Liu et al., 2020). As counselors, it is important to understand how these factors may relate to our understanding of social development and social intimacy. Understanding these issues in light of these models may help us understand how societal dynamics may correspond to these models of social isolation and intimacy, providing a foundation or context for counseling practice and interventions.

Research Questions

  The focus of this present study was to evaluate the link between Erikson's identity versus role confusion stage of development on later success in the intimacy versus isolation stage of development specifically in emerging adulthood. The research questions were:

1. What is the relationship between level of completion of Erikson's identity stage and reported levels of intimacy in college students ages 18-24?

2. What is the relationship between level of intimacy reported and reported levels of loneliness in college students ages 18-24?

3. What is the relationship between level of intimacy reported and reports of quality of relationships in college students ages 18-24?

Summary

  Numerous reports indicate an increase in loneliness and social isolation, which warrants concern for the related impact on overall health and well-being. Research has suggested that meaningful connections can effectively work to decrease loneliness, however there may be factors impacting successful development of intimate relationships, which may be attributing to these increased rates. Identity is a factor that has been suggested as critical to the development of intimate relationships, however there is limited research on its association. This chapter reviewed the literature on the factors that may be influencing social development and social intimacy and the relationship between intimacy and overall health and well-being. The present study will further explore the relationship between identity development and intimacy development in order to determine its implications for counselors in the treatment of identity and intimacy related issues.

Chapter 2

Methodology

This study examined whether emerging adults reported better relationship or intimacy outcomes corresponding to successful resolution of the identity versus role confusion stage. This study looked at emerging adults' completion of the identity versus role confusion stage and their outcomes and how this corresponded to relationship and intimacy indicators. These indicators included ratings of loneliness and quality of relationships. Survey method was used because of its effectiveness in sampling in college age students.

Participants

Participants were current undergraduate students between the ages of 18 and 24. Participants were recruited through undergraduate courses in the Special Education, Rehabilitation, and Counseling program at a southeastern land grant university. A priori power analysis using G*Power 3.1 (Faul et al., 2009) indicated that a minimum number of 55 participants were required to detect small effects (f=.15) with 80% power using a f test with alpha at .05. Demographic data was collected to be able to describe the characteristics of the sample and compare the sample across these demographic variables.

Procedures

Once courses and/or course sections were identified (which included direct correspondence with instructors and the use of SONA, the university's research system, which allows university students to participate in research studies for extra credit), the researcher provided instructors with recruitment information to distribute to potential participants. This flyer included information linking them to the study, information letter (see Appendix 3), and online survey (see Appendices 4-7). Participants had the potential for compensation by being

included in a drawing for one of three Amazon gift cards, one valued at $50 and two valued at $25. In addition, in courses where permitted (which included SONA approved courses), students were eligible for additional course points or credit for participating.

Recruitment and procedures were submitted to the Institutional Review Board (IRB) for approval. After IRB approval (see Appendix 1), the researcher began recruitment and data collection. Participants were recruited using convenience sampling from counseling (COUN) undergraduate minor and COUN undergraduate courses. Students within the participating courses were instructed by their professor or graduate teaching assistant on eligibility for the study. Students who were eligible were sent an invitation (see Appendix 2) via their university email with an overview of the study and a link directing them to the survey. The survey included a brief demographic questionnaire, the Modified Erikson Psychosocial Stage Inventory (MEPSI; see Appendix 5) (Darling-Fisher & Leidy, 1988), the UCLA Loneliness Scale Version 3 (see Appendix 6) (Russell, 1996), and the Social Provisions Scale (SPS; see Appendix 7) (Cutrona & Russell, 1987). A follow-up email (see Appendix 2) was sent 2-weeks after the initial email reminding students of the study. Participants were initially prompted, once in the Qualtrics survey, to review the uploaded information letter and given an option to consent before preceding to the survey. The information letter included an overview of the study, confidentiality, associated risks and discomforts, and an option to withdraw. All information collected remained confidential.

Instruments

The Modified Erikson Psychosocial Stage Inventory (MEPSI)

Participants' development of identity and intimacy was measured using the Modified Erikson Psychosocial Stage Inventory (MEPSI) (Darling-Fisher & Leidy, 1988). The MEPSI has

eight subscales each consisting of 10 items that correspond with one of Erikson's psychosocial stages. Respondents rate their level of agreement on a Likert-type scale ranging from 1 (*hardly ever true*) to 5 (*almost always true*) on 20 statements related to the identity and intimacy stages. Example items for the identity stage are "I've got a clear idea of what I want to be," and "I can't decide what I want to do with my life." Example items for the intimacy stage are "I'm warm and friendly," and "I think it's crazy to get too involved with people." The subscales for both stages were scored using the authors' instructions. Negative items are reversed scored, and the average is totaled for positive and negative items with higher scores indicating the presence of more positive attributes. In a prior study, the MEPSI was found to have an alpha reliability coefficient of .97 with a coefficient for identity at .85 and .78 for intimacy (Darling-Fisher & Leidy, 1988).

The UCLA Loneliness Scale Version 3

Participants' perceived feelings of loneliness and social isolation was measured using the UCLA Loneliness Scale Version 3 (Russell, 1996). This instrument consists of 9 positively and 11 negatively worded questions. Respondents indicate how often each question describes how they feel on a Likert-type scale ranging from 1 (*never*) to 4 (*often*). Example items are "How often do you feel left out," and "How often do you feel that there are people you can talk to?" Negative items are reversed scored and responses totaled with higher scores indicating greater loneliness. In an analysis of data collected from studies on college students, teachers, nurses, and the elderly, the UCLA Loneliness Scale Version 3 was found to be highly reliable with an internal consistency that ranged between .89 and .94 and a test-retest reliability of .73 (Russell, 1996).

The Social Provisions Scale (SPS)

The quality of current relationships was measured using the Social Provisions Scale

(Cutrona & Russell, 1987). This instrument consists of 12 positively and 12 negatively worded items. Each of the six subscales contains four items related to one of the provisions outlined in Weiss's (1974) social provisions theory that are needed to feel supported in relationships. Respondents rate their level of agreement on a Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Example items are "There are people I can depend on to help me if I really need it," and "There is no one who shares my interests and concerns." Negative items are reversed scored and responses totaled with higher scores indicating the presence of a particular provision. In an analysis conducted on a sample of teachers, college students, and nurses, the Social Provisions total score was found to have a reliability of .92. The subscales were found to be reliable in research contexts with coefficient alphas ranging from .65 to .76 (Cutrona & Russell, 1987).

Demographics

Participants were asked demographic questions related to age, race and ethnicity, gender, and grade level. These responses were used for analysis on potential group differences.

Analyses Design

Descriptive statistics and linear regression were used to better understand the importance of successful completion of the identity versus role confusion stage on later success in the intimacy versus isolation stage (research question 1). Descriptive statistics and linear regressions were used to determine if there was an association between successful resolution of the intimacy versus isolation stage with a decrease in reported loneliness (research question 2). Finally, descriptive statistics and linear regressions were used to determine if there was an association between successful resolution of the intimacy versus isolation stage with an increase in quality of relationships (research question 3).

Summary

The methodology and data collection procedures that were used to examine the association between identity development and intimacy development in emerging adults were outlined in this chapter. The association between intimacy development and loneliness and quality of relationship was additionally explored. Data was collected using a brief demographic questionnaire, the Modified Erikson Psychosocial Stage Inventory (Darling-Fisher & Leidy, 1988), the UCLA Loneliness Scale Version 3 (Russell, 1996), and the Social Provisions Scale (Cutrona & Russell, 1987). Descriptive statistics and linear regressions were used to explore the relationships.

Chapter 3

Results

Introduction

The purpose of this study was to explore the implications of identity development on intimacy development in emerging adults. Additionally, this study sought to examine whether intimacy development corresponded to lower levels of reported loneliness and higher reports of quality of relationships in emerging adults. Data was analyzed using the Statistical Package for Social Science (SPSS) 28.0. Data was collected from 289 participants. Data from 43 participants was omitted from analysis because it contained three or more missing values in the variables being analyzed. Data from 246 participants was used for the final analysis. The instruments used in the study included a brief demographic questionnaire, the Modified Erikson Psychosocial Stage Inventory (Darling-Fisher & Leidy, 1988), the UCLA Loneliness Scale Version 3 (Russell, 1996), and the Social Provisions Scale (Cutrona & Russell, 1987). The survey consisted of 68 items. Linear regression was used to determine the impact of identity development on intimacy development in emerging adults. In addition, linear regressions were used to determine the effects of intimacy development on levels of loneliness and reported quality of relationships.

Demographics

The sample consisted of 246 undergraduate students. Participants ranged in ages from 18 to 24 years of age, with an average age of 20 (*SD*=1.40). The majority of participants were female (82.5%) and White (86.6%). Descriptive statistics are reported in Table 1. The mean, standard deviation, and reliability statistics are reported in Table 2 for the Modified Erikson Psychosocial Stage Inventory (Darling-Fisher & Leidy, 1988), the UCLA Loneliness Scale Version 3 (Russell, 1996), and the Social Provisions Scale (Cutrona & Russell, 1987). The mean

for the Identity – Confusion Subscale of the Modified Erikson Psychosocial Stage Inventory (Darling-Fisher & Leidy, 1988) was 3.53 with a standard deviation of 0.73, whereas the mean for the Intimacy – Isolation Subscale of the Modified Erikson Psychosocial Stage Inventory (Darling-Fisher & Leidy, 1988) was 3.77 with a standard deviation of 0.72. Scores of 4 or more are considered high. The norm group, that included a sample of 168 adults, reported a mean for the Identity – Confusion Subscale of 4.11 and a mean for the Intimacy – Isolation Subscale of 3.83 (Darling-Fisher & Leidy, 1988). Differing from the norm group, participants' scores in the current study indicated low levels of identity. Low levels of intimacy were reported in both studies. Additionally, the mean for the UCLA Loneliness Scale Version 3 (Russell, 1996) was 2.17 with a standard deviation of 0.60. Mean scores of 2.15 or higher indicate loneliness (Russell, 1996). The norm group consisted of college students, nurses, teachers, and elderly (Russell, 1996). The mean for college students (N=487) was 2.00. Contrasting from the norm group, participants in the current study were considered lonely. The mean for the Social Provisions Scale (Cutrona & Russell, 1987) was 3.27 with a standard deviation of 0.46. Scores totaling 3 or more indicate the acquirement of the social provision. The norm group included 1183 college students of the 1792 participants sampled (Russell & Cutrona, 1987). Participants reported a mean score of 3.44. Similar to the norm group, the present study's participants' scores indicated the acquirement of the social provisions that are considered necessary in relationships to feel supported (Weiss, 1974).

Table 1

Demographic Characteristics of Participants

Characteristic	*n*	*%*
Gender		
Female	203	82.5%
Male	34	13.8%
Gender Non-Binary	5	2.0%
Transgender	1	0.4%
Prefer not to answer	1	0.4%
Race/Ethnicity		
White	213	86.6%
Black or African American	9	3.7%
Latinx/Hispanic	5	2.0%
Asian	8	3.3%
Two or more Race/Ethnicities	10	4.1%
Prefer not to answer	1	0.4%

Note. $N = 246$

Table 2

Cronbach's Alpha, Means, SD, and Correlations Variables (n = 246)

		Cronbach's alpha	M	SD	1	2	3	4
1	MEPSI (Identity – Confusion)	.85	3.53	0.73	--			
2	MEPSI (Intimacy – Isolation)	.83	3.77	0.72	.55**	--		
3	UCLA Loneliness Scale	.95	2.17	0.60	-.58**	-.64**	--	
4	SPS	.92	3.27	0.46	.46**	.57*	-.79**	--

Note. ** p < .001.

Research Question 1: What is the relationship between level of completion of Erikson's identity stage and reported levels of intimacy in college students ages 18-24?

A Pearson correlation coefficient was used to examine the relationship between levels of identity and intimacy. The results indicated a significant positive correlation between levels of identity and intimacy, r = .55, p<.001. A correlation summary can be viewed in Table 2. A simple regression analysis was used to determine if identity level significantly predicted intimacy level. The results indicated that level of identity significantly predicted level of intimacy, F (1,244)=103.23, p<.001. Twenty-nine and seven tenths' percent of the variance in level of intimacy can be accounted for by level of identity, R^2=.30. Level of identity is a good predictor of intimacy, t (244)=10.16, p<.001.

Research Question 2: What is the relationship between level of intimacy reported and reported levels of loneliness in college students ages 18-24?

A Pearson correlation coefficient was used to determine the relationship between levels of intimacy and loneliness. The results indicated a significant negative correlation between levels of intimacy and loneliness, r = -.64, p<.001. Results are outlined in Table 2. A simple regression

analysis was used to examine if intimacy level significantly predicted loneliness level. The results indicated that level of intimacy significantly predicted level of loneliness, F (1,244)=168.64, $p<.001$. Forty and nine tenths' percent of the variance in level of loneliness can be accounted for by level of intimacy, $R^2=.41$. Level of intimacy is a good predictor of loneliness, t (244)=-12.99, $p<.001$.

Research Question 3: What is the relationship between level of intimacy reported and reports of quality of relationships in college students ages 18-24?

A Pearson correlation coefficient was used to assess the relationship between levels of intimacy and quality of relationships. The results indicated a significant positive correlation between levels of intimacy and quality of relationships, $r = .57$, $p<.001$. Results are summarized in Table 2. A simple regression was used to determine if intimacy level significantly predicted quality of relationships. The results indicated that level of intimacy significantly predicted quality of relationships, F (1,244)=115.02, $p<.001$. Thirty-two percent of the variance in quality of relationships can be accounted for by level of intimacy, $R^2=.32$. Level of intimacy is a good predictor of quality of relationships, t (244)=10.73, $p<.001$.

Summary

This study focused on understanding the relationship between identity development and intimacy development in emerging adults. In addition, this study examined the relationship between intimacy development and levels of loneliness and reported quality of relationships in emerging adults. To answer these questions, a brief demographic questionnaire, the Modified Erikson Psychosocial Stage Inventory (Darling-Fisher & Leidy, 1988), the UCLA Loneliness Scale Version 3 (Russell, 1996), and the Social Provisions Scale (Cutrona & Russell, 1987) were used. Results indicated that higher levels of identity development predicted higher levels of

intimacy development. Additionally, the study found levels of intimacy development to be a

predictor of lower levels of loneliness and higher quality of relationships.

Chapter 4

Discussion

The purpose of the current study was to evaluate the link between identity development and intimacy development in emerging adults. In addition, this study sought to understand the relationship between intimacy development and levels of loneliness and reported quality of relationships in emerging adults. Results from the brief demographic questionnaire, the Modified Erikson Psychosocial Stage Inventory (Darling-Fisher & Leidy, 1988), the UCLA Loneliness Scale Version 3 (Russell, 1996), and the Social Provisions Scale (Cutrona & Russell, 1987) will be discussed in this chapter. In addition, implications for counselors on best practices for treating identity and intimacy issues as well as the study's limitations and recommendations for future research will be discussed.

Overview

Nationwide reports indicate loneliness is at epidemic levels, with younger demographics between the ages of 18-37 years old the most impacted (Cigna, 2020), and these rates appear to have further increased since the onset of the global pandemic (Weissbourd et al., 2021; Lee et al., 2020; Liu et al., 2020). There is also evidence that social isolation and loneliness is associated with increased physical and psychological health risks (DiJulio et al., 2018; *Aging Without Community: The Consequences of Isolation and Loneliness*, 2017; Holt-Lunstad et al., 2015). Moreover, research continues to demonstrate a link between loneliness and depression (Lee et al., 2020; Liu et al., 2020). Specifically, prolonged social isolation and loneliness has been shown to have even more significant long-term implications, with research linking it with early mortality (Holt-Lunstad et al., 2015).

Meaningful connections have been found to decrease these reported feelings of loneliness (DiJulio et al., 2018; Cigna, 2020; Soulsby & Bennett, 2015), yet we have recent indicators that Americans are less connected, suggesting that there may be underlying factors impacting individuals' ability to make these meaningful connections. In addition, Americans are becoming increasingly reliant on technology for social interactions, but the shift to online platforms is likely only making society less social (DiJulio et al., 2018). Furthermore, with the increased risk of exposure with in-person interactions during the COVID-19 pandemic (CDC, 2020), Americans are continuing to isolate resulting in increased reports of loneliness, social isolation, and depression in young adults (Weissbourd et al., 2021; Lee et al., 2020; Liu et al., 2020).

Erikson's (1959) proposed theory on psychosocial development can be important in understanding how these factors might be impacting social development, specifically meaningful connections. According to Erikson (1968), intimacy resulted from the fusion of two distinct identities that are both interdependent and independent of each other. Individuals who fail to develop healthy intimate relationships often settle for substitute stereotypical relationships, resulting in feelings of isolation (Erikson, 1968). Previous studies have demonstrated identity as a strong predictor of intimacy in emerging adults (Johnson et al., 2012; Seiffge-Krenke, 2010; Mitchell et al., 2021).

The current study was designed to understand the impact of identity development in intimacy development in emerging adults. In addition, this study looked to determine the effect of intimacy development on levels of loneliness and reported quality of relationships in emerging adults.

Discussion

The present study sought to develop an understanding of the relationship between identity development and intimacy development in emerging adults. This included consideration of the relationship between intimacy development and loneliness and quality of relationships.

The first research question assessed the relationship between levels of identity and intimacy. The results indicated a significant relationship between identity level and intimacy level. Identity level was found to be a statistically significant predictor of intimacy level. These findings are consistent with Erikson's ideas (Erikson, 1959) and with previous research supporting identity achievement as an important developmental task for later intimacy (Mitchell et al., 2021; Weisskirch, 2018; Johnson et al., 2012; Beyers & Seiffge-Krenke, 2010). Intimacy development has been shown to improve overall well-being, including increased midlife satisfaction (Sneed et al., 2012; Johnson et al., 2012), outcomes likely due in part to the decreased social isolation and feelings of loneliness resulting from these meaningful connections (DiJulio et al., 2018; Cigna, 2020). These findings highlight the importance of identity achievement for its implications on intimacy development and overall well-being.

The second research question examined the relationship between levels of intimacy and loneliness. The study found a relationship between levels of intimacy and loneliness. Higher levels of intimacy were predictive of lower levels of loneliness. Meaningful connections effectively work to decrease feelings of loneliness (DiJulio et al., 2018; Cigna, 2020). Intimacy development, in particular, has been found to be associated with decreased feelings of loneliness (Weisskirch, 2018), which is consistent with the findings of this study. With loneliness for young adults at concerning levels pre-pandemic (Cigna, 2020) and only further increasing as a result of

the pandemic (Weissbourd et al., 2021; Lee et al., 2020; Liu et al., 2020), these findings underscore the importance of considering intimacy development as a moderator for loneliness.

The third research question evaluated the relationship between levels of intimacy and quality of relationships. According to Weiss's (1974) social provisions theory, relational quality is determined by whether certain provisions are present that are needed to feel supported in relationships. Understanding the relationship between intimacy and quality of relationships is important as research has indicated that social support works to moderate stress and improves overall health and well-being (Cohen & Wills, 1985; Bowen et al., 2014; Umberson & Montez, 2010). This is especially critical as perceived social support in all relationships besides family appear to have declined since the pandemic (Li et al., 2021). The findings demonstrated that levels of intimacy had a direct positive relationship with quality of relationships. Specifically, in this study, levels of intimacy were a predictor of quality of relationships. As level of intimacy increased, quality of relationships increased. Erikson suggested that a failure to form healthy intimate relationships can lead to relationships that are superficial or to isolation altogether (Boyd & Bee, 2006). The findings emphasize the importance of intimacy development for its implications on social support.

Overall, the findings from this study suggest a critical link between identity development and intimacy development that appears to have significant implications on factors associated with overall well-being including relational quality and decreased loneliness. Findings from this present study are consistent with existing research supporting the link between identity development and intimacy development in emerging adulthood as well as the relationship between intimacy and relational quality and feelings of loneliness. These findings add to the existing literature as research establishing these links is limited.

Implications for Counselors

The results from the current study indicate a relationship between identity development and intimacy development in emerging adults. The results also indicated an association between intimacy development and improved relational quality and reduced feelings of loneliness in emerging adults. The findings underscore the implications of intimacy development on overall well-being and suggest that counselors may need to consider clients' identity development when treating issues with intimacy in emerging adults. Erikson believed identity development was not just restricted to adolescence but rather occurred across the lifespan (Erikson, 1968). Recent research has introduced the idea of revisiting unresolved psychosocial stages at later ages. According to recent findings, clients who have not successfully resolved the identity stage of development might still have time to catch up with the developmental trajectory of their peers and successfully resolve both the identity and intimacy stages of development (Mitchell et al., 2021; Whitbourne et al., 2009).

In reference to assessing these areas and issues, it is possible that the subscales corresponding to the identity and intimacy stages on the Modified Erikson Psychosocial Stage Inventory (Darling-Fisher & Leidy, 1988) can be used as a brief assessment to determine a client's level of development in the identity and intimacy stages. If the client is assessed as low in both stages, the counselor might consider identity as a factor impacting the client's intimacy development. Marcia's (1966) identity status model (Berzonsky et al., 2013) can be used by counselors to further assess the client's identity status in terms of occupation or ideology in order to better understand the areas of exploration and commitment in occupation and ideology that might be necessary for healthy identity development. For example, a client in identity diffusion in respect to occupation would be assessed as having low commitment and low self-exploration

(Berzonsky et al., 2013). The counselor can help the client gain experiences and explore options as they are likely undecided (Marcia, 1966). Clients may even seem unconcerned. In these instances, counselors can help the client explore why this might be as the client's personal investment in the exploration process is critical to identity achievement. If their client does show interest with a particular occupation, the counselor can help the client better understand and gain experiences in the daily tasks and responsibilities of the occupation as they are likely unaware of these and may be easily persuaded should another option be presented. Understanding where a client may be stuck developmentally, their developmental goals, and the ego strengths and skills that are necessary to meet those goals may offer counselors an additional perspective in treatment planning, specifically with the central life issues of identity and intimacy (Marcia & Josselson, 2013). At minimum, counselors may be able to offer a period where commitments are delayed (Erikson, 1964).

In addition to considering models of social development in the treatment of intimacy issues, it is important for counselors to explore cultural factors that may be influencing clients' abilities to meaningfully connect. As recent reports indicate increasing rates of loneliness, social isolation, and depression in young adults as a result of the COVID-19 pandemic (Weissbourd et al., 2021; Lee et al., 2020; Liu et al., 2020), it may be important to consider continuing client patterns of social isolation that may be impacting client willingness and ability to meaningful engage. Increased technology usage has also been associated with social isolation and feelings of loneliness (DiJulio et al., 2018). This suggests that despite the increased accessibility to social connections online, there is less opportunity for meaningful connections. Understanding clients' reliance on technology as a means to connect may be critical in understanding how technology may be inhibiting their ability to meaningfully connect.

Limitations

One limitation of this study was the limited number of male participants (N=34, 13.8%). This is due in part to recruitment. The participants in this study were largely recruited through SONA. The research system is specific to select majors largely compromised of females, thus the results may not be generalizable to males. It would have been beneficial to understand gender differences, specifically with identity and intimacy development as identity and intimacy related issues may present differently in males and females.

An additional limitation was a lack of racial and ethnic diversity in the sample. The majority of the participants identified as White (N=213, 86.6%), thus these results may not be generalizable to all racial and ethnic groups. This was due to recruitment as participants were recruited from a university with a predominantly White student population. It would have been beneficial to include universities with more diverse samples.

The participants were all currently enrolled university students. This may be a limitation as exploration and commitment to an occupation are considered key factors to the development of a healthy identity (Marcia, 1966; Berzonsky et al., 2013). It would have been beneficial to include non-university students.

Finally, the identity and intimacy subscales on the Modified Erikson Psychosocial Stage Inventory (Darling-Fisher & Leidy, 1988) used to assess participants' level of development in the identity and intimacy stages were each comprised of 10 questions. Although brief, the measure is used to assess for identity and intimacy levels based on Erikson's (1959) theory on psychosocial development. However, it may be necessary to include additional more comprehensive measures to assess for identity and intimacy.

Future Recommendations for Research

Future research is needed to address the limitations of this current study. With the study's sample being mostly White females, there are limitations in generalizability to males and to other races and ethnicities. It is additionally important to understand differences in gender as well as in race and ethnicities as this can inform best practices for the assessment and treatment of identity and intimacy issues in diverse populations. The sample should also include non-university students as students currently enrolled in college are likely actively exploring and committing to occupations, both known to be components of identity development (Marcia, 1966; Berzonsky et al., 2013). Future replication studies would benefit from a more diverse sample.

The subscales on the Modified Erikson Psychosocial Stage Inventory (Darling-Fisher & Leidy, 1988) used to assess participants' level of development in the identity and intimacy stages are brief. The subscales were used because they were developed as a measure to assess for identity and intimacy levels based on Erikson's (1959) theory on psychosocial development. Future research may need to consider the addition of more comprehensive measures on identity and intimacy.

Assessing for clients' social support early in treatment is critical for its treatment implications on many of the mental disorders. This is likely attributed to its impact on overall health and well-being as well as to its stress buffering effects (Cohen & Wills, 1985; Bowen et al., 2014; Umberson & Montez, 2010). Because social support is such a critical coping skill for clients, it is important to understand the variables beyond identity that impact clients' abilities to meaningfully connect with their social support. Future studies might consider exploring the relationship between intimacy development and clients' abilities to meaningfully connect with their social support.

Finally, it is important to understand best practices for the treatment of identity and intimacy issues. As noted in both the current and previous studies, identity may be an important factor for counselors to consider when treating intimacy issues (Mitchell et al., 2021; Weisskirch, 2018; Johnson et al., 2012; Beyers & Seiffge-Krenke, 2010). Consideration of this link is even more so critical with the increasing trend of loneliness and social isolation we are seeing in young adults (U.S. Census Bureau, 2020; DiJulio et al., 2018; Cigna, 2020; Weissbourd et al., 2021; Lee et al., 2020; Liu et al., 2020) and its negative implications on physical and psychological health (Holt-Lunstad et al., 2015; DiJulio et al., 2018; Lee et al., 2020; Liu et al., 2020). Meaningful connections have been shown to decrease these reports of loneliness (DiJulio et al., 2018; Cigna, 2020; Soulsby & Bennett, 2015). Future studies might consider effective interventions for treating identity and intimacy issues, specifically focusing on strategies for increasing psychosocial intimacy and exploring client options in work, ideology, and love.

Summary

This research study explored the relationship between identity development and intimacy development in emerging adults. Additionally, this study sought to examine whether intimacy development corresponded to lower levels of reported loneliness and higher reports of quality of relationships in emerging adults. The study's findings indicated identity level to be a predictor of intimacy level. In addition, the study found intimacy development to be a predictor of lower levels of loneliness and higher quality of relationships. The implications of this study suggest counselors may need to consider identity development when treating issues of intimacy in emerging adults.

Chapter 5: Manuscript

Introduction

Social support has long been a preferred coping strategy prescribed by counseling professionals. Stronger social support can act as a buffer against stressors and is associated with overall health and well-being (Cohen & Wills, 1985; Bowen et al., 2014; Umberson & Montez, 2010). Specifically, stronger social relationships appear to improve life expectancy rates by 50% (Holt-Lunstad et al., 2010). This impact is parallel to the negative effect smoking and alcohol consumption have on life expectancy rates. Close, personal relationships, in-person interactions in particular, seem to be the most impactful on reported feelings of loneliness and social isolation (Cigna, 2020). However, despite the overwhelming evidence of the need and benefits of social support, we are seeing Americans continue to disengage. Currently, more than a quarter of Americans live alone, a rate that was only just over 5% in the 1960's (U.S. Census Bureau, 2020). Adults are becoming increasingly socially isolated, lacking meaningful connections with others, which is a key indicator often linked to loneliness (DiJulio et al., 2018; Cigna, 2020). This rising trend is garnering national attention with U.S. Surgeon General, Vivek Murthy, recently describing it as a loneliness epidemic (Weissbourd et al., 2021).

There are several cultural factors that are likely impacting these growing rates of loneliness and isolation. Changing marital norms in the United States may be a key contributor. Marriage rates in young adults have taken a sharp decline since the late 1970's. A little over one-fifth of women and one-quarter of men aged 35-44 years have never been married, and young adults, in general, are waiting longer than ever before marrying (United States Census Bureau, 2021). Additionally, Americans are relying more and more on technology for social interactions (Vogels, 2019), with adults spending an average of 10-and-a-half hours a day on some form of

media (Nielson, 2018). Many Americans attribute social isolation and feelings of loneliness to a reliance on technology (DiJulio et al., 2018), indicating that technology may just be an illusion of connection. The recent COVID-19 pandemic acted as an inadvertent social experiment as to whether society could effectively maintain social support largely through online platforms. Recent reports indicate that, with the exception of family support, levels of perceived social support declined during the pandemic (Li et al., 2021), and levels of loneliness continued to rise (Weissbourd et al., 2021; Lee et al., 2020; Liu et al., 2020).

Mental and Physical Health Impact of Loneliness and Social Isolation

There is a growing concern on the effects of social isolation and loneliness on both physical and psychological health. As noted, recent studies indicate a rise in Americans that say they felt lonely, with younger adults reportedly the most impacted (Cigna, 2020). Loneliness differs from social isolation in that it is one's perception of rather than actual state of social isolation (Hawkley & Capitanio, 2015). Cigna (2020) noted an increase from their previous report in participants identifying with several key statements on the University of California, Los Angeles (UCLA) Loneliness Scale (Russell, 1996) on negative moods which support loneliness as a perception of social isolation. Among participants in the most recent study, 38% reported not having close relationships, and 58% reported "they always or sometimes feel like no one knows them well," an increase of 4% from the previous report. Furthermore, 48% of participants indicated that they "always or sometimes feel isolated from others" (up 5%). Participants (47%) also reported not having meaningful relationships (up 4%), with 45% saying "they sometimes or always feel that they are no longer close to anyone" (up 6%) (Cigna, 2020, p. 4).

In addition to these concerning trends in social isolation and loneliness, there are indications that loneliness can negatively impact mental and physical health (DiJulio et al., 2018). For example, those experiencing loneliness are at a greater risk for depression (Lee et al.,

2020; Liu et al., 2020), with increasing rates of major depressive episodes among emerging

adults supporting this link (SAMHSA, 2019). Social isolation and reported loneliness, in many

cases, has been associated with early mortality (Holt-Lunstad et al., 2015). In her testimony

before the U.S. Senate, Julianne Holt-Lunstad, neuroscience and psychology professor at

Brigham Young University, referenced a large-scale meta-analytic review spanning from

January 1980 to February 2014 showing a 29% increased mortality rate in those who were

socially isolated, a 26% increase in those reported as lonely, and a 32% increase in those living

alone (*Aging Without Community: The Consequences of Isolation and Loneliness*, 2017; Holt-

Lunstad et al., 2015).

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Factors Contributing to Social Isolation and Loneliness

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Loneliness and social isolation are having a negative impact on emerging adults, a

developmental period defined by Arnett (2000) following adolescence spanning from

approximately 18-25 years old. Concerningly, there are indications that emerging adults are

becoming less connected, having fewer of these meaningful connections that have proven to be

so critical to quality and quantity of life. In just the last 50 years, there have been several cultural

factors that have shifted the social landscape that, to some degree, may be responsible for the

increasing rates of loneliness and social isolation. The patterns and platforms for establishing

relationships are changing, and these changing dynamics may have serious implications on the

developmental trajectory of healthy relationships potentially resulting in delays in relational

development or unsuccessful development altogether. To mitigate or address these rising

concerns among emerging adults, it is important to first understand what factors may be

contributing to their relational development. This may include consideration of their social

engagement and factors that may influence their ability to meaningfully connect.

Technology

Over the last decade, social interactions have increasingly shifted from face-to-face to online platforms. Ninety-three percent of Millennials, the demographic cohort born between 1981 and 1996 (Dimock, 2019), report owning a smartphone, and the majority are engaged in some form of social media (Vogels, 2019). Technology, often credited with its convenience and accessibility for social interactions, may be anything but social. There is growing research on the negative impact of technology on social relationships, and, in general, most Americans agree, with 58% associating increased technology use with loneliness and social isolation (DiJulio et al., 2018). For example, current research has identified a link between social media usage and increased depression in young adults (Lin et al., 2016).

Paralleling Lin et al.'s (2016) findings, research has also demonstrated that limiting time on social media platforms can result in self-reports of less loneliness and depression (Hunt et al., 2018). Several studies have postulated a rationale for this specific to social relationships and our capacity to engage in these relationships in such forums. From a sociological perspective, Dunbar (1992) introduced a theory based on research with primates. In it, he proposed a link between the size of the neocortex and the size of the interaction group. The following year, he suggested that humans too have a limited cognitive bandwidth specifically related to face-to-face social interactions (Dunbar, 1993). He posited that humans are able to reasonably manage only 150 relationships (Purves, 2008). Attempts to maintain relationships exceeding this number could lead to social and group instability (Zhou et al., 2005). A later study on Facebook data suggested that online interactions have similar cognitive constraints with findings demonstrating that online social networks and face-to-face offline networks were comparable (Dunbar, 2015).

Changes in Intimate Relationship Patterns

Sociability and connectedness are two factors that distinguish very happy people from very unhappy people. Very happy people are reportedly highly sociable, with both stronger romantic and social relationships (Diener & Seligman, 2002). However, relational patterns are continually evolving, and the newest patterns we are seeing may be impacting these levels particularly the changes we are seeing in how and when relationships are established. Singles are increasingly looking online to find connections with nearly half of 18- to 29-year-olds reporting having used a dating site or app (Anderson et al., 2020). Over half of Americans believe connections made from online dating are equally as successful as ones that began in person. Currently, a little over one-in-ten adults report having had a committed or marriage relationship from online dating. We know that making these commitments has its benefits. Marital status has consistently been shown to impact psychological health (Soulsby & Bennett, 2015). However, data indicate that adults are less willing to make these commitments (United States Census Bureau, 2021). In fact, adults are taking longer to marry, and fewer, in general, are getting married (United States Census Bureau, 2021). Overall marriage rates for both men and women have declined (men, 20 to 18 per 1,000 population; women, 18 to 17 per 1,000 population). The average age for first marriages is up approximately two years from 2008 to 2016 for both genders (men, 30 years old; women, 28 years old). A reported 59.7% of women and 70.9% of men aged 25-29 and 36.1% of women and 45.8% of men aged 30-34 years old have never married (United States Census Bureau, 2021).

Potential Impact of COVID-19 on Social Isolation and Loneliness

Given the recent global health crisis, with its direct implications on in-person interactions, social and relationship health, and physical and psychological health, understanding

these dynamics is more important than ever. Americans were first alerted to the threat of an

emerging pandemic by the World Health Organization (WHO) in January of 2020 (WHO, 2020).

SARS-CoV-2, the virus that causes the coronavirus disease 2019 (COVID-19), quickly began to

spread and in March 2020, was officially labeled a pandemic (WHO, 2020). The Centers for

Disease Control and Prevention's (CDC) first issued warnings of COVID-19 in America, soon

followed by the CDC's recommended guidelines to include social distancing, quarantining if

exposed, and state issued stay-at-home orders, all resulted in societal interactions becoming

increasingly nonexistent. With many health and public officials stressing the importance of

adherence to these protocols, social isolation was soon synonymous with safety, and limiting

face-to-face interactions was strongly encouraged for the overall societal good (CDC, 2020). But

the social distancing restrictions believed to slow the spread of one crisis may have in fact led to

another (Weissbourd et al., 2021). Recent reports indicate that loneliness, social isolation, and

depression in young adults increased because of the pandemic (Weissbourd et al., 2021; Lee et

al., 2020; Liu et al., 2020).

Social Development and Social Intimacy

There are models of social development that help us understand the variables and factors

that appear to impact how we develop and how well we develop social relationships and social

intimacy. In Erik Erikson's (1959) theory on psychosocial development, he suggested that the

formation of a healthy identity was a precursor to later intimacy (Boyd & Bee, 2006). Erikson

believed that a failure to form a healthy identity in adolescence impacted the individual's ability

to develop meaningful connections in adulthood (Boyd & Bee, 2006; Erikson, 1959).

Adolescents or those in early adulthood who have yet to develop intimate relationships may

instead settle for stereotypical or superficial relationships, which Erikson believed led to feelings

of isolation (Erikson, 1968). In the process of operationally defining Erikson's ideas on identity

formation, James Marcia (1966) developed a status paradigm (Berzonsky et al., 2013). His

identity status model is often described as an extension of Erikson's model (Meeus, 2011) and

can be used to further explore identity development. These models can potentially provide

counselors a framework for considering how best to support their clients in their development as

it relates to the issues of identity and intimacy.

Erikson's Psychosocial Stages

Erikson (1959) believed human development was not restricted to just childhood and

adolescence. He introduced eight psychosocial stages of development lasting from birth to old

age (Erikson, 1959). Within each successive stage of development, he identified inner and outer

conflicts, or crises, that must be successfully resolved for the development of a healthy

personality. The personality, when confronted with these crises and able to weather successfully,

emerges with resources for the next subsequent crisis. Erikson was careful not to confuse crisis

with catastrophe. He rather meant for it to mean a critical period of both vulnerability and

possibility (Erikson, 1968). The psychosocial stages include (1) trust vs. mistrust, (2) autonomy

vs. shame and doubt, (3) initiative vs. guilt, (4) industry vs. inferiority, (5) identity vs. role

confusion, (6) intimacy vs. isolation, (7) generativity vs. stagnation, and (8) ego integrity vs.

despair (Erikson, 1959; 1968). The resulting outcome of each stage was either increased strength

or maladjustment (Erikson, 1968). Successful resolution resulted in the acquirement of a

corresponding virtue and the development of self-esteem which he defined as "a conviction that

one is learning effective steps toward a tangible future and that one is developing a defined

personality within a social reality which one understands" (Erikson, 1959, p. 95).

Erikson titled the stage following the conclusion of childhood identity vs. role confusion (Erikson, 1959). In this stage, adolescents are specifically tasked with understanding their own unique individuality (Erikson, 1968). Erikson's view on the formation of a healthy identity was not limited to this stage of development but rather, he believed, developed throughout the lifespan. He suggested that the ego had a distinct method of synthesizing the self and defined ego identity as the awareness of this method and the resulting components of the self that remained the same and stable over time (Erikson, 1968). An emphasis in this stage is on the consolidation of social roles specifically how to integrate roles and skills acquired prior to this stage with society's ideals. Youth often have a preoccupation with how others view them and contrast this with their own view (Erikson, 1959). Adolescents may revisit crises from previous stages in an attempt to achieve continuity in their identity. Erikson notes that this integration is not merely "the sum of the childhood identifications…it is the inner capital accrued from all those experiences of each successive stage" (Erikson, 1959, p. 94). Identity is strengthened through sincere rather than superficial acknowledgement of one's accomplishments (Erikson, 1959). An adolescent who feels they cannot fit into roles deemed acceptable by society will often become defensive and respond by running from associated pressures including staying out at night, dropping out of school, quitting their job, withdrawing emotionally, or experiencing unusual moods. It is especially important that when a youth acts in these seemingly confused and delinquent ways, that those who mentor the adolescent or those in the justice system are careful to consider the circumstances unique to this stage of adolescence and not mislabel the adolescent based on their behaviors as these labels could later lead to the adolescent labeling themselves (Erikson, 1959). The thought is that with appropriate assessment and treatment, these behaviors will not have the same lasting implications in adolescence as they would in adulthood. The

primary identity issue in this stage surrounds deciding on an occupation. The adolescent may lose their identity altogether, overidentifying with those in the in-crowd or becoming so entrenched in a particular group, they exclude others that do not fit the group's stereotypes. This defensiveness is an attempt to manage the sense of confusion the adolescent may feel with their identity (Erikson, 1959). Successful completion of this stage includes the awareness of one's unique individuality and the stability of the self, the knowledge and integration of societal roles, and the acquisition of the virtue fidelity. An adolescent who is unsuccessful in this stage may fail to identify with societal roles (Beyers & Seiffge-Krenke, 2010).

Erikson believed successful adolescent identity development was necessary for real intimacy in adulthood (Boyd & Bee, 2006; Erikson, 1959). Erikson discussed intimacy as both sexual and psychological (Erikson, 1959). He defined relational intimacy as a fusing of two individual identities (Erikson, 1968). He described these identities as independent of but also interdependent on each other (Erikson, 1968), identities that are both autonomous and connected (Beyers & Seiffge-Krenke, 2010). Failure to develop a healthy identity and these meaningful connections, both in the platonic and romantic sense, have all sorts of implications on an individual relationally as well as physically and psychologically. Erikson believed that the search for identity often ended with misguided youth attempting to find their identity in their relationships. He believed that this often leads to sexual intimacy rather than a necessary emphasis on psychosocial intimacy (Erikson, 1968). An inability to form these healthy identities and intimate relationships may result in stereotypical relationships and feelings of isolation (Erikson, 1968). Young people with insecure identities, in an attempt to avoid intimacy, may respond with behaviors that are promiscuous, absent of the fusion necessary for true intimacy (Erikson, 1968). If an adolescent is unable to develop relational intimacy, Erikson believed a sort

of replica to intimacy would develop known as distantiation. Individuals may act defensively, isolating themselves or rejecting or destroying anything they feel is a threat (Erikson, 1968). The more secure one is in their identity, the more open one is to interpersonal intimacy (Erikson, 1959).

Marcia's Status Model

Marcia (1966) developed criteria and a continuum based on Erikson's model to assess for the status of ego identity development consisting of four points or statuses: identity achievement, identity moratorium, identity foreclosure, and identity diffusion. Erikson believed the choice of occupation and ideology were central to identity formation (Erikson, 1963). The criteria for determining one's identity status in Marcia's model is based on levels of crisis and commitment in occupation and ideology (Marcia, 1966), but the term crisis has since been replaced with high and low levels of exploration (Berzonsky et al., 2013). The processes of exploration (crisis) and commitment are necessary as the adolescent now "faced with the imminence of adult tasks…must relinquish the childhood position of being 'given to' and prepare to be the 'giver'" (Kroger & Marcia, 2011, p. 32). The exploration period involves the adolescent actively choosing between alternatives in terms of occupation and ideology (Marcia, 1966). Commitment involves the level of personal investment in this process. According to this model, identity achievement is characterized by high self-exploration followed by high commitment (Berzonsky et al., 2013). With decisions of ideology, past beliefs are likely evaluated and resolved leaving the adolescent with the freedom to act in accordance with those beliefs (Marcia, 1966). In terms of occupation, the adolescent will have made this decision regardless of if it deters from their parent's ideals. The adolescent is likely to remain stable despite sudden changes. Moratorium and foreclosure are two points that fall about midway on the continuum. Identity moratorium is

characterized by high self-exploration and low commitment (Berzonsky et al., 2013). In moratorium, the adolescent is in a period of exploration (Marcia, 1966). The adolescent remains unclear in their commitments, actively struggling to commit. They are concerned with common adolescent issues and are working to compromise between what they are capable of and with the goals of their parents and the demands of society. They may appear confused, often concerned with questions that, at times, may feel unresolvable. Identity foreclosure is characterized by low self-exploration and high commitment (Berzonsky et al., 2013). In foreclosure, the adolescent has made a commitment without a period of exploration (Marcia, 1966). The line between their parent's goals and their own are blurred. Their personality can be rigid with their beliefs about what they are to become based on what others expect of them, particularly their parents. Identity diffusion is characterized by low commitment and low self-exploration (Berzonsky et al., 2013). The adolescent has yet to decide on an occupation and is seemingly unconcerned with the task (Marcia, 1966). If an occupation is of interest, the adolescent may not be aware of what it entails on a day-to-day basis and may be easily swayed if another option is presented. With respect to ideology, the adolescent may seem disinterested or open to all.

Identity Achievement and Later Intimacy

Erikson believed healthy identity to be necessary to intimacy as "the condition of twoness is that one must first become oneself" (Erikson, 1982, p. 101). Exploring options in adolescence in the areas of work, love, and ideology, areas he believed necessary to the formation of identity, would result in the choice of a partner, work, and worldview (Arnett, 2015). One assumption in Erikson's theory is of developmental ordering, in other words, identity precedes intimacy, and the development of healthy intimacy is contingent on the development of a healthy identity (Erikson, 1968), and research supports identity achievement as an important developmental task

for intimacy in emerging adults. Mitchell et al. (2021) found identity resolution in emerging adulthood to be predictive of intimacy in emerging adulthood with those scoring higher in identity also scoring higher in intimacy. Weisskirch (2018) supported these findings with researchers additionally finding identity development to be linked to well-being with those scoring high on intimacy also reporting feeling less lonely and happier. Sneed et al. (2012) found both identity and intimacy development in college predicted satisfaction in midlife. However, contrary to previous studies, Sneed et al. (2012) did not find identity to be predictive of intimacy over time. In a study looking specifically at identity status and later intimacy, Johnson et al. (2012) found higher identity statuses to be predictive of higher intimacy in romantic relationships in emerging adults. Moreover, identity and romantic intimacy were both found to be associated with well-being. Most notably, in a reevaluation of data from a pre-existing longitudinal study, Beyers and Seiffge-Krenke (2010) found ego achievement by age 15 to be positively correlated with intimacy at age 25. Participants' ego development increased at a steady rate from adolescence to adulthood. At the study's onset, 32% of the participants reported being in romantic relationships with an average duration of 5.1 months. By aged 25, 62% reported partnerships averaging 3.2 years.

It is important to note that issues with identity formation in adolescence may not necessarily be indicative of issues with intimacy across the lifespan. Findings suggest psychosocial development may look less linear throughout the lifespan, like an image of climbing a ladder, and more like a matrix (Whitbourne et al., 2009). In other words, psychosocial issues typical to one age and stage may be experienced at an earlier age or revisited at a later age. Emerging adults who have yet to successfully resolve the identity stage have been shown to later experience faster growth rates in their thirties and through middle adulthood in the intimacy

domain suggesting that one may be able to make up for lost time (Mitchell et al., 2021). Similar findings support this idea of "catching up" (Whitbourne et al., 2009). The implications are that those adolescents and emerging adults whose developmental trajectory is not as expected, according to Erikson's model, may have time to still gain experiences to encourage successful resolution of these two stages (Mitchell et al., 2021). Counselors may want to consider their client's development when discussing treatment options for issues concerning identity and intimacy (Marcia & Josselson, 2013).

Research Purpose and Significance

There have been concerning trends related to social isolation and loneliness. This includes indications that loneliness and social isolation have increased significantly for young adults (U.S. Census Bureau, 2020; DiJulio et al., 2018; Cigna, 2020) only to be even more intensified during the COVID-19 pandemic (Weissbourd et al., 2021; Lee et al., 2020; Liu et al., 2020). It is also clear that these trends may correspond to negative impacts on physical health (Holt-Lunstad et al., 2015; DiJulio et al., 2018). Furthermore, we understand that individuals reporting loneliness may also experience psychological issues including depression (Lee et al., 2020; Liu et al., 2020). As counselors, it is important to understand how these factors may relate to our understanding of social development and social intimacy. Understanding these issues in light of these models may help us understand how societal dynamics may correspond to these models of social isolation and intimacy, providing a foundation or context for counseling practice and interventions.

Methodology

Research Questions

This study examined whether emerging adults reported better relationship or intimacy outcomes corresponding to successful resolution of the identity versus role confusion stage. This study looked at emerging adults' completion of the identity versus role confusion stage and their outcomes and how this corresponded to relationship and intimacy indicators. These indicators included ratings of loneliness and quality of relationships. Survey method was used because of its effectiveness in sampling in college age students. The research questions were:

1. What is the relationship between level of completion of Erikson's identity stage and reported levels of intimacy in college students ages 18-24?

2. What is the relationship between level of intimacy reported and reported levels of loneliness in college students ages 18-24?

3. What is the relationship between level of intimacy reported and reports of quality of relationships in college students ages 18-24?

Participants

Participants were current undergraduate students between the ages of 18 and 24. Participants were recruited through undergraduate courses in the Special Education, Rehabilitation, and Counseling program at a southeastern land grant university. A priori power analysis using G*Power 3.1 (Faul et al., 2009) indicated that a minimum number of 55 participants were required to detect small effects (f=.15) with 80% power using a f test with alpha at .05. Demographic data was collected to be able to describe the characteristics of the sample and compare the sample across these demographic variables.

Procedures

Once courses and/or course sections were identified (which included direct correspondence with instructors and the use of SONA, the university's research system, which allows university students to participate in research studies for extra credit), the researcher provided instructors with recruitment information to distribute to potential participants. This flyer included information linking them to the study, information letter, and online survey. Participants had the potential for compensation by being included in a drawing for one of three Amazon gift cards, one valued at $50 and two valued at $25. In addition, in courses where permitted (which included SONA approved courses), students were eligible for additional course points or credit for participating.

Recruitment and procedures were submitted to the Institutional Review Board (IRB) for approval. After IRB approval, the researcher began recruitment and data collection. Participants were recruited using convenience sampling from counseling (COUN) undergraduate minor and COUN undergraduate courses. Students within the participating courses were instructed by their professor or graduate teaching assistant on eligibility for the study. Students who were eligible were sent an invitation via their university email with an overview of the study and a link directing them to the survey. The survey included a brief demographic questionnaire, the Modified Erikson Psychosocial Stage Inventory (Darling-Fisher & Leidy, 1988), the UCLA Loneliness Scale Version 3 (Russell, 1996), and the Social Provisions Scale (Cutrona & Russell, 1987). A follow-up email was sent 2-weeks after the initial email reminding students of the study. Participants were initially prompted, once in the Qualtrics survey, to review the uploaded information letter and given an option to consent before preceding to the survey. The information

letter included an overview of the study, confidentiality, associated risks and discomforts, and an option to withdraw. All information collected remained confidential.

Instruments

The Modified Erikson Psychosocial Stage Inventory (MEPSI)

Participants' development of identity and intimacy was measured using the Modified Erikson Psychosocial Stage Inventory (MEPSI) (Darling-Fisher & Leidy, 1988). The MEPSI has eight subscales each consisting of 10 items that correspond with one of Erikson's psychosocial stages. Respondents rate their level of agreement on a Likert-type scale ranging from 1 (*hardly ever true*) to 5 (*almost always true*) on 20 statements related to the identity and intimacy stages. Example items for the identity stage are "I've got a clear idea of what I want to be," and "I can't decide what I want to do with my life." Example items for the intimacy stage are "I'm warm and friendly," and "I think it's crazy to get too involved with people." The subscales for both stages were scored using the authors' instructions. Negative items are reversed scored, and the average is totaled for positive and negative items with higher scores indicating the presence of more positive attributes. In a prior study, the MEPSI was found to have an alpha reliability coefficient of .97 with a coefficient for identity at .85 and .78 for intimacy (Darling-Fisher & Leidy, 1988).

The UCLA Loneliness Scale Version 3

Participants' perceived feelings of loneliness and social isolation was measured using the UCLA Loneliness Scale Version 3 (Russell, 1996). This instrument consists of 9 positively and 11 negatively worded questions. Respondents indicate how often each question describes how they feel on a Likert-type scale ranging from 1 (*never*) to 4 (*often*). Example items are "How often do you feel left out," and "How often do you feel that there are people you can talk to?" Negative items are reversed scored and responses totaled with higher scores indicating greater

loneliness. In an analysis of data collected from studies on college students, teachers, nurses, and the elderly, the UCLA Loneliness Scale Version 3 was found to be highly reliable with an internal consistency that ranged between .89 and .94 and a test-retest reliability of .73 (Russell, 1996).

The Social Provisions Scale (SPS)

The quality of current relationships was measured using the Social Provisions Scale (SPS) (Cutrona & Russell, 1987). This instrument consists of 12 positively and 12 negatively worded items. Each of the six subscales contains four items related to one of the provisions outlined in Weiss's (1974) social provisions theory that are needed to feel supported in relationships. Respondents rate their level of agreement on a Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Example items are "There are people I can depend on to help me if I really need it," and "There is no one who shares my interests and concerns." Negative items are reversed scored and responses totaled with higher scores indicating the presence of a particular provision. In an analysis conducted on a sample of teachers, college students, and nurses, the Social Provisions total score was found to have a reliability of .92. The subscales were found to be reliable in research contexts with coefficient alphas ranging from .65 to .76 (Cutrona & Russell, 1987).

Analyses Design

The focus of this present study was to evaluate the link between Erikson's identity versus role confusion stage of development on later success in the intimacy versus isolation stage of development specifically in emerging adulthood. Participants were asked demographic questions related to age, race and ethnicity, gender, and grade level. Participants' development of identity and intimacy was measured using the Modified Erikson Psychosocial Stage Inventory (Darling-

Fisher & Leidy, 1988). Participants' perceived feelings of loneliness and social isolation was

measured using the UCLA Loneliness Scale Version 3 (Russell, 1996). The quality of current

relationships was measured using the Social Provisions Scale (Cutrona & Russell, 1987).

Descriptive statistics and linear regressions were used to better understand the importance of

successful completion of the identity versus role confusion stage on later success in the intimacy

versus isolation stage. Descriptive statistics and linear regressions were used to determine if there

was an association between successful resolution of the intimacy versus isolation stage with a

decrease in reported loneliness and an increase in quality of relationships.

Results

The purpose of this study was to explore the implications of identity development on

intimacy development in emerging adults. Additionally, this study sought to examine whether

intimacy development corresponded to lower levels of reported loneliness and higher reports of

quality of relationships in emerging adults. Data was analyzed using the Statistical Package for

Social Science (SPSS) 28.0. Data was collected from 289 participants. Data from 43 participants

was omitted from analysis because it contained three or more missing values in the variables

being analyzed. Data from 246 participants was used for the final analysis. The instruments used

in the study included a brief demographic questionnaire, the Modified Erikson Psychosocial

Stage Inventory (Darling-Fisher & Leidy, 1988), the UCLA Loneliness Scale Version 3 (Russell,

1996), and the Social Provisions Scale (Cutrona & Russell, 1987). The survey consisted of 68

items.

Demographics

The sample consisted of 246 undergraduate students. Participants ranged in ages from 18

to 24 years of age, with an average age of 20 (SD=1.40). The majority of participants were

female (82.5%) and White (86.6%). Descriptive statistics are reported in Table 1. The mean, standard deviation, and reliability statistics are reported in Table 2 for the Modified Erikson Psychosocial Stage Inventory (Darling-Fisher & Leidy, 1988), the UCLA Loneliness Scale Version 3 (Russell, 1996), and the Social Provisions Scale (Cutrona & Russell, 1987). The mean for the Identity – Confusion Subscale of the Modified Erikson Psychosocial Stage Inventory (Darling-Fisher & Leidy, 1988) was 3.53 with a standard deviation of 0.73, whereas the mean for the Intimacy – Isolation Subscale of the Modified Erikson Psychosocial Stage Inventory (Darling-Fisher & Leidy, 1988) was 3.77 with a standard deviation of 0.72. Scores of 4 or more are considered high. The norm group, that included a sample of 168 adults, reported a mean for the Identity – Confusion Subscale of 4.11 and a mean for the Intimacy – Isolation Subscale of 3.83 (Darling-Fisher & Leidy, 1988). Differing from the norm group, participants' scores in the current study indicated low levels of identity. Low levels of intimacy were reported in both studies. Additionally, the mean for the UCLA Loneliness Scale Version 3 (Russell, 1996) was 2.17 with a standard deviation of 0.60. Mean scores of 2.15 or higher indicate loneliness (Russell, 1996). The norm group consisted of college students, nurses, teachers, and elderly (Russell, 1996). The mean for college students (N=487) was 2.00. Contrasting from the norm group, participants in the current study were considered lonely. The mean for the Social Provisions Scale (Cutrona & Russell, 1987) was 3.27 with a standard deviation of 0.46. Scores totaling 3 or more indicate the acquirement of the social provision. The norm group included 1183 college students of the 1792 participants sampled (Russell & Cutrona, 1987). Participants reported a mean score of 3.44. Similar to the norm group, the present study's participants' scores indicated the acquirement of the social provisions that are considered necessary in relationships to feel supported (Weiss, 1974).

Table 1

Demographic Characteristics of Participants

Characteristic	*n*	*%*
Gender		
Female	203	82.5%
Male	34	13.8%
Gender Non-Binary	5	2.0%
Transgender	1	0.4%
Prefer not to answer	1	0.4%
Race/Ethnicity		
White	213	86.6%
Black or African American	9	3.7%
Latinx/Hispanic	5	2.0%
Asian	8	3.3%
Two or more Race/Ethnicities	10	4.1%
Prefer not to answer	1	0.4%

Note. $N = 246$

Table 2

Cronbach's Alpha, Means, SD, and Correlations Variables (n = 246)

		Cronbach's alpha	M	SD	1	2	3	4
1	MEPSI (Identity – Confusion)	.85	3.53	0.73	--			
2	MEPSI (Intimacy – Isolation)	.83	3.77	0.72	.55**	--		
3	UCLA Loneliness Scale	.95	2.17	0.60	-.58**	-.64**	--	
4	SPS	.92	3.27	0.46	.46**	.57*	-.79**	--

Note. ** p < .001.

A Pearson correlation coefficient was used to examine the relationship between levels of identity and intimacy. The results indicated a significant positive correlation between levels of identity and intimacy, $r = .55$, $p<.001$. A correlation summary can be viewed in Table 2. A simple regression analysis was used to determine if identity level significantly predicted intimacy level. The results indicated that level of identity significantly predicted level of intimacy, $F (1,244)=103.23$, $p<.001$. Twenty-nine and seven tenths' percent of the variance in level of intimacy can be accounted for by level of identity, $R^2=.30$. Level of identity is a good predictor of intimacy, $t (244)=10.16$, $p<.001$.

A Pearson correlation coefficient was used to determine the relationship between levels of intimacy and loneliness. The results indicated a significant negative correlation between levels of intimacy and loneliness, $r = -.64$, $p<.001$. Results are outlined in Table 2. A simple regression analysis was used to examine if intimacy level significantly predicted loneliness level. The results indicated that level of intimacy significantly predicted level of loneliness, $F (1,244)=168.64$, $p<.001$. Forty and nine tenths' percent of the variance in level of loneliness can

be accounted for by level of intimacy, R^2=.41. Level of intimacy is a good predictor of loneliness, t (244)=-12.99, p<.001.

A Pearson correlation coefficient was used to assess the relationship between levels of intimacy and quality of relationships. The results indicated a significant positive correlation between levels of intimacy and quality of relationships, r = .57, p<.001. Results are summarized in Table 2. A simple regression was used to determine if intimacy level significantly predicted quality of relationships. The results indicated that level of intimacy significantly predicted quality of relationships, F (1,244)=115.02, p<.001. Thirty-two percent of the variance in quality of relationships can be accounted for by level of intimacy, R^2=.32. Level of intimacy is a good predictor of quality of relationships, t (244)=10.73, p<.001.

Summary

This study focused on understanding the relationship between identity development and intimacy development in emerging adults. In addition, this study examined the relationship between intimacy development and levels of loneliness and reported quality of relationships in emerging adults. To answer these questions, a brief demographic questionnaire, the Modified Erikson Psychosocial Stage Inventory (Darling-Fisher & Leidy, 1988), the UCLA Loneliness Scale Version 3 (Russell, 1996), and the Social Provisions Scale (Cutrona & Russell, 1987) were used. Results indicated that higher levels of identity development predicted higher levels of intimacy development. Additionally, the study found levels of intimacy development to be a predictor of lower levels of loneliness and higher quality of relationships.

Discussion

The present study sought to develop an understanding of the relationship between identity development and intimacy development in emerging adults. This included consideration of the relationship between intimacy development and loneliness and quality of relationships.

The first research question assessed the relationship between levels of identity and intimacy. The results indicated a significant relationship between identity level and intimacy level. Identity level was found to be a statistically significant predictor of intimacy level. These findings are consistent with Erikson's ideas (Erikson, 1959) and with previous research supporting identity achievement as an important developmental task for later intimacy (Mitchell et al., 2021; Weisskirch, 2018; Johnson et al., 2012; Beyers & Seiffge-Krenke, 2010). Intimacy development has been shown to improve overall well-being, including increased midlife satisfaction (Sneed et al., 2012; Johnson et al., 2012), outcomes likely due in part to the decreased social isolation and feelings of loneliness resulting from these meaningful connections (DiJulio et al., 2018; Cigna, 2020). These findings highlight the importance of identity achievement for its implications on intimacy development and overall well-being.

The second research question examined the relationship between levels of intimacy and loneliness. The study found a relationship between levels of intimacy and loneliness. Higher levels of intimacy were predictive of lower levels of loneliness. Meaningful connections effectively work to decrease feelings of loneliness (DiJulio et al., 2018; Cigna, 2020). Intimacy development, in particular, has been found to be associated with decreased feelings of loneliness (Weisskirch, 2018), which is consistent with the findings of this study. With loneliness for young adults at concerning levels pre-pandemic (Cigna, 2020) and only further increasing as a result of

the pandemic (Weissbourd et al., 2021; Lee et al., 2020; Liu et al., 2020), these findings underscore the importance of considering intimacy development as a moderator for loneliness.

The third research question evaluated the relationship between levels of intimacy and quality of relationships. According to Weiss's (1974) social provisions theory, relational quality is determined by whether certain provisions are present that are needed to feel supported in relationships. Understanding the relationship between intimacy and quality of relationships is important as research has indicated that social support works to moderate stress and improves overall health and well-being (Cohen & Wills, 1985; Bowen et al., 2014; Umberson & Montez, 2010). This is especially critical as perceived social support in all relationships besides family appear to have declined since the pandemic (Li et al., 2021). The findings demonstrated that levels of intimacy had a direct positive relationship with quality of relationships. Specifically, in this study, levels of intimacy were a predictor of quality of relationships. As level of intimacy increased, quality of relationships increased. Erikson suggested that a failure to form healthy intimate relationships can lead to relationships that are superficial or to isolation altogether (Boyd & Bee, 2006). The findings emphasize the importance of intimacy development for its implications on social support.

Overall, the findings from this study suggest a critical link between identity development and intimacy development that appears to have significant implications on factors associated with overall well-being including relational quality and decreased loneliness. Findings from this present study are consistent with existing research supporting the link between identity development and intimacy development in emerging adulthood as well as the relationship between intimacy and relational quality and feelings of loneliness. These findings add to the existing literature as research establishing these links is limited.

Implications for Counselors

The results from the current study indicate a relationship between identity development and intimacy development in emerging adults. The results also indicated an association between intimacy development and improved relational quality and reduced feelings of loneliness in emerging adults. The findings underscore the implications of intimacy development on overall well-being and suggest that counselors may need to consider clients' identity development when treating issues with intimacy in emerging adults. Erikson believed identity development was not just restricted to adolescence but rather occurred across the lifespan (Erikson, 1968). Recent research has introduced the idea of revisiting unresolved psychosocial stages at later ages. According to recent findings, clients who have not successfully resolved the identity stage of development might still have time to catch up with the developmental trajectory of their peers and successfully resolve both the identity and intimacy stages of development (Mitchell et al., 2021; Whitbourne et al., 2009).

In reference to assessing these areas and issues, it is possible that the subscales corresponding to the identity and intimacy stages on the Modified Erikson Psychosocial Stage Inventory (Darling-Fisher & Leidy, 1988) can be used as a brief assessment to determine a client's level of development in the identity and intimacy stages. If the client is assessed as low in both stages, the counselor might consider identity as a factor impacting the client's intimacy development. Marcia's (1966) identity status model (Berzonsky et al., 2013) can be used by counselors to further assess the client's identity status in terms of occupation or ideology in order to better understand the areas of exploration and commitment in occupation and ideology that might be necessary for healthy identity development. For example, a client in identity diffusion in respect to occupation would be assessed as having low commitment and low self-exploration

(Berzonsky et al., 2013). The counselor can help the client gain experiences and explore options as they are likely undecided (Marcia, 1966). Clients may even seem unconcerned. In these instances, counselors can help the client explore why this might be as the client's personal investment in the exploration process is critical to identity achievement. If their client does show interest with a particular occupation, the counselor can help the client better understand and gain experiences in the daily tasks and responsibilities of the occupation as they are likely unaware of these and may be easily persuaded should another option be presented. Understanding where a client may be stuck developmentally, their developmental goals, and the ego strengths and skills that are necessary to meet those goals may offer counselors an additional perspective in treatment planning, specifically with the central life issues of identity and intimacy (Marcia & Josselson, 2013). At minimum, counselors may be able to offer a period where commitments are delayed (Erikson, 1964).

In addition to considering models of social development in the treatment of intimacy issues, it is important for counselors to explore cultural factors that may be influencing clients' abilities to meaningfully connect. As recent reports indicate increasing rates of loneliness, social isolation, and depression in young adults as a result of the COVID-19 pandemic (Weissbourd et al., 2021; Lee et al., 2020; Liu et al., 2020), it may be important to consider continuing client patterns of social isolation that may be impacting client willingness and ability to meaningful engage. Increased technology usage has also been associated with social isolation and feelings of loneliness (DiJulio et al., 2018). This suggests that despite the increased accessibility to social connections online, there is less opportunity for meaningful connections. Understanding clients' reliance on technology as a means to connect may be critical in understanding how technology may be inhibiting their ability to meaningfully connect.

Limitations

One limitation of this study was the limited number of male participants (N=34, 13.8%). This is due in part to recruitment. The participants in this study were largely recruited through SONA. The research system is specific to select majors largely compromised of females, thus the results may not be generalizable to males. It would have been beneficial to understand gender differences, specifically with identity and intimacy development as identity and intimacy related issues may present differently in males and females.

An additional limitation was a lack of racial and ethnic diversity in the sample. The majority of the participants identified as White (N=213, 86.6%), thus these results may not be generalizable to all racial and ethnic groups. This was due to recruitment as participants were recruited from a university with a predominantly White student population. It would have been beneficial to include universities with more diverse samples.

The participants were all currently enrolled university students. This may be a limitation as exploration and commitment to an occupation are considered key factors to the development of a healthy identity (Marcia, 1966; Berzonsky et al., 2013). It would have been beneficial to include non-university students.

Finally, the identity and intimacy subscales on the Modified Erikson Psychosocial Stage Inventory (Darling-Fisher & Leidy, 1988) used to assess participants' level of development in the identity and intimacy stages were each comprised of 10 questions. Although brief, the measure is used to assess for identity and intimacy levels based on Erikson's (1959) theory on psychosocial development. However, it may be necessary to include additional more comprehensive measures to assess for identity and intimacy.

Future Recommendations for Research

Future research is needed to address the limitations of this current study. With the study's sample being mostly White, females, there are limitations in generalizability to males and to other races and ethnicities. It is additionally important to understand differences in gender as well as in race and ethnicities as this can inform best practices for the assessment and treatment of identity and intimacy issues in diverse populations. The sample should also include non-university students as students currently enrolled in college are likely actively exploring and committing to occupations, both known to be components of identity development (Marcia, 1966; Berzonsky et al., 2013). Future replication studies would benefit from a more diverse sample.

The subscales on the Modified Erikson Psychosocial Stage Inventory (Darling-Fisher & Leidy, 1988) used to assess participants' level of development in the identity and intimacy stages are brief. The subscales were used because they were developed as a measure to assess for identity and intimacy levels based on Erikson's (1959) theory on psychosocial development. Future research may need to consider the addition of more comprehensive measures on identity and intimacy.

Assessing for clients' social support early in treatment is critical for its treatment implications on many of the mental disorders. This is likely attributed to its impact on overall health and well-being as well as to its stress buffering effects (Cohen & Wills, 1985; Bowen et al., 2014; Umberson & Montez, 2010). Because social support is such a critical coping skill for clients, it is important to understand the variables beyond identity that impact clients' abilities to meaningfully connect with their social support. Future studies might consider exploring the

relationship between intimacy development and clients' abilities to meaningfully connect with their social support.

Finally, it is important to understand best practices for the treatment of identity and intimacy issues. As noted in both the current and previous studies, identity may be an important factor for counselors to consider when treating intimacy issues (Mitchell et al., 2021; Weisskirch, 2018; Johnson et al., 2012; Beyers & Seiffge-Krenke, 2010). Consideration of this link is even more so critical with the increasing trend of loneliness and social isolation we are seeing in young adults (U.S. Census Bureau, 2020; DiJulio et al., 2018; Cigna, 2020; Weissbourd et al., 2021; Lee et al., 2020; Liu et al., 2020) and its negative implications on physical and psychological health (Holt-Lunstad et al., 2015; DiJulio et al., 2018; Lee et al., 2020; Liu et al., 2020). Meaningful connections have been shown to decrease these reports of loneliness (DiJulio et al., 2018; Cigna, 2020; Soulsby & Bennett, 2015). Future studies might consider effective interventions for treating identity and intimacy issues, specifically focusing on strategies for increasing psychosocial intimacy and exploring client options in work, ideology, and love.

Summary

This research study explored the relationship between identity development and intimacy development in emerging adults. Additionally, this study sought to examine whether intimacy development corresponded to lower levels of reported loneliness and higher reports of quality of relationships in emerging adults. The study's findings indicated identity level to be a predictor of intimacy level. In addition, the study found intimacy development to be a predictor of lower levels of loneliness and higher quality of relationships. The implications of this study suggest counselors may need to consider identity development when treating issues of intimacy in emerging adults.

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APPENDIX: Recruitment and Measures

Appendix 1 – IRB Approval

Information Letter

COLLEGE OF EDUCATION

DEPARTMENT OF
SPECIAL EDUCATION, REHABILITATION, AND COUNSELING

(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS IRB APPROVAL INFORMATION WITH CURRENT DATES HAS BEEN ADDED TO THIS DOCUMENT.)

INFORMATION LETTER
for a Research Study entitled
"The Impact of Identity Development on College Students' Relationships"
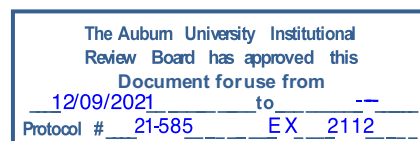
You are invited to participate in a research study to examine the effect of identity development on college students' relationships. The study is being conducted by Brittney Barnett, a doctoral student under the direction of Dr. Jamie Carney in the Auburn University Department of Special Education, Rehabilitation, and Counseling. You are invited to participate because you are a currently enrolled college student and are between the ages of 18 and 24.

What will be involved if you participate? Your participation is completely voluntary. If you decide to participate in this research study, you will click the survey link where you will be asked questions about your identity development, the intimacy in your relationships, the quality of your relationships, and your feelings of loneliness. Your total time commitment will be approximately 35 minutes.

Are there any risks or discomforts? The risks associated with participating in this study are the potential for psychological distress and discomfort associated with answering questions related to identity, intimacy, relational quality, and loneliness. To minimize these risks, you can stop at any point you choose, or you can skip any questions you're uncomfortable answering. You will additionally find a list of counseling resources on the last page of this Information Letter.

Are there any benefits to yourself or others? There are no benefits for participating.

Will you receive compensation for participating? There is no compensation for participating. You will have the potential to be included in a drawing for a chance to win 1 of 3 Amazon Gift Cards valued at $25 and $50. If you wish to be included in the drawing, you will be asked to provide your email address at the end of the survey. Your survey responses will not be associated with your email address. If you are participating in the study through the Sona System, you may be able to receive extra credit or meet a course requirement in eligible courses.

> The Auburn University Institutional Review Board has approved this Document for use from
> __12/09/2021_____to____ ___-- ____
> Protocol #___21-585_____ E X __2112____

Are there any costs? There are no costs to participate.

If you change your mind about participating, you can withdraw at any time by closing your browser window. If you choose to withdraw, your data can be withdrawn as long as it is identifiable. Once you've submitted confidential data, it cannot be withdrawn since it will be unidentifiable. Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University, the Department of Special Education, Rehabilitation, and Counseling, or with Brittney Barnett.

Any data obtained in connection with this study will remain confidential. We will protect your privacy and the data you provide by transferring and storing it on a secure laptop with encryption software. Information collected through your participation may be used to fulfill an educational requirement, published in a professional journal, and/or presented at a professional meeting.

If you have questions about this study, please contact Brittney Barnett at brb0066@auburn.edu or Dr. Carney at carnejs@auburn.edu.

If you have questions about your rights as a research participant, you may contact the Auburn University Office of Research Compliance or the Institutional Review Board by phone at (334)-844-5966 or by e-mail at IRBadmin@auburn.edu or IRBChair@auburn.edu.

HAVING READ THE INFORMATION ABOVE, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, PLEASE CLICK ON THE LINK BELOW. YOU MAY PRINT A COPY OF THIS LETTER TO KEEP.

_____
Investigator   Date

_____
Co-Investigator   Date

The Auburn University Institutional Review Board has approved this document for use from _____ to _____. Protocol #_____

LINK TO SURVEY

Version Date (date document created): 4/6/2021

Counseling Resources

<u>Auburn University Students</u>

Auburn University Student Counseling & Psychological Services
Mental health counseling services for Auburn students
https://wp.auburn.edu/scs/
334-844-5123

<u>Emergency Resources</u>

If you are in immediate danger, call 911.

For potential hospitalization, you can present to the East Alabama Medical Center Emergency Department located at 2000 Pepperell Pkwy, Opelika, AL 36801.

<u>24 Hour Free Emotional Support Not Affiliated with Auburn University</u>

Crisis Text Line
https://www.crisistextline.org/
Text 741741

East Alabama Mental Health Hotline
http://eamhc.org/
334-742-2877 or 1-800-815-0630

National Suicide Prevention Lifeline
Phone and chat options available
https://suicidepreventionlifeline.org/
1-800-273-8255

<u>Auburn & Opelika Area Counselors</u>

A Quiet Place Counseling
https://aquietplacecounseling.com
334-521-8302

Prevail Counseling & Wellness, LLC
https://www.prevailcounselingandwellness.com/
334-329-6255

Perspective Counseling
https://perspectivecounselingauburn.com/
334-329-6063

Appendix 2 – Recruitment Emails

Dear Auburn Student:

You are invited to participate in a survey about the effect of identity development on college student's relationships. By sharing your experience, we will have a better insight into the impact identity and intimacy development has on relationships to help us to then explore how to best address the needs of Auburn students.

This study is being conducted by Brittney Barnett, a doctoral student under the direction of Dr. Jamie Carney in the Auburn University Department of Special Education, Rehabilitation, and Counseling. You are receiving this invitation because you are a currently enrolled college student at Auburn University and are age 18 and older. As Auburn University researchers, we value your student perspective.

Your participation is completely voluntary. The risks associated with participating in this study are minimal. Participants will have the potential to be included in a drawing for an Amazon Gift Card. If you have any questions or concerns you may contact Brittney Barnett at brb0066@auburn.edu or Dr. Jamie Carney at carnejs@auburn.edu.

This survey will take approximately 30 minutes to complete. All responses are completely confidential. If you change your mind about participating, you can withdraw at any time by closing your browser window. Your decision concerning whether or not to participate will not jeopardize your future relations with Auburn University.

If you choose to participate in this study, please click here to begin. If the survey does not automatically open, please copy and paste the following link to your internet browser's address bar:

Thank you for your participation,
Brittney Barnett, LPC, NCC
Doctoral Candidate, Counselor Education
Auburn University

Dear Auburn Student:

This is a reminder that you are invited to participate in a survey about the effect of identity development on college student's relationships. By sharing your experience, we will have a better insight into the impact identity and intimacy development has on relationships to help us to then explore how to best address the needs of Auburn students.

This study is being conducted by Brittney Barnett, a doctoral student under the direction of Dr. Jamie Carney in the Auburn University Department of Special Education, Rehabilitation, and Counseling. You are receiving this invitation because you are a currently enrolled college student at Auburn University and are age 18 and older. As Auburn University researchers, we value your student perspective.

Your participation is completely voluntary. The risks associated with participating in this study are minimal. Participants will have the potential to be included in a drawing for an Amazon Gift Card. If you have any questions or concerns you may contact Brittney Barnett at brb0066@auburn.edu or Dr. Jamie Carney at carnejs@auburn.edu.

This survey will take approximately 30 minutes to complete. All responses are completely confidential. If you change your mind about participating, you can withdraw at any time by closing your browser window. Your decision concerning whether or not to participate will not jeopardize your future relations with Auburn University.

If you choose to participate in this study, please click here to begin. If the survey does not automatically open, please copy and paste the following link to your internet browser's address bar:

Thank you for your participation,
Brittney Barnett, LPC, NCC
Doctoral Candidate, Counselor Education
Auburn University

Appendix 3 – Information Letter

COLLEGE OF EDUCATION

DEPARTMENT OF
SPECIAL EDUCATION, REHABILITATION, AND COUNSELING

**(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS IRB APPROVAL INFORMATION
WITH CURRENT DATES HAS BEEN ADDED TO THIS DOCUMENT.)**

INFORMATION LETTER
for a Research Study entitled
"Identity Development: Implications for Intimacy in Emerging Adulthood"

You are invited to participate in a research study to examine the effect of identity development on college student's relationships. The study is being conducted by Brittney Barnett, a doctoral student under the direction of Dr. Jamie Carney in the Auburn University Department of Special Education, Rehabilitation, and Counseling. You are invited to participate because you are a currently enrolled college student and are age 18 or older.

What will be involved if you participate? Your participation is completely voluntary. If you decide to participate in this research study, you will click the survey link where you will be asked questions about your identity development, the intimacy in your relationships, the quality of your relationships, and your feelings of loneliness. Your total time commitment will be approximately 30 minutes.

Are there any risks or discomforts? The risks associated with participating in this study are the potential for psychological distress and discomfort associated with answering questions related to identity, intimacy, relational quality, and loneliness. To minimize these risks, you can stop at any point you choose. You additionally have the option to skip any questions you're uncomfortable answering.

Are there any benefits to yourself or others? There are no benefits for participating.

Will you receive compensation for participating? There is no compensation for participating. Participants will have the potential to be included in a drawing for an Amazon Gift Card.

Are there any costs? There are no costs to participate.

If you change your mind about participating, you can withdraw at any time by closing your browser window. If you choose to withdraw, your data can be withdrawn as long as it is identifiable. Once you've submitted confidential data, it cannot be withdrawn since it will be unidentifiable. Your decision

about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University, the Department of Special Education, Rehabilitation, and Counseling, or with Brittney Barnett.

Any data obtained in connection with this study will remain confidential. We will protect your privacy and the data you provide by transferring and storing it on a secure laptop with encryption software. Information collected through your participation may be used to fulfill an educational requirement, published in a professional journal, and/or presented at a professional meeting.

If you have questions about this study, please contact Brittney Barnett at brb0066@auburn.edu or Dr. Carney at carnejs@auburn.edu.

If you have questions about your rights as a research participant, you may contact the Auburn University Office of Research Compliance or the Institutional Review Board by phone at (334)-844-5966 or by e-mail at IRBadmin@auburn.edu or IRBChair@auburn.edu.

HAVING READ THE INFORMATION ABOVE, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, PLEASE CLICK ON THE LINK BELOW. YOU MAY PRINT A COPY OF THIS LETTER TO KEEP.

_____
Investigator   Date

_____
Co-Investigator   Date

The Auburn University Institutional Review Board has approved this document for use from _____ to _____. Protocol #_____

LINK TO SURVEY

Version Date (date document created): 4/6/2021

Appendix 4 – Demographic Questionnaire

<u>Demographic Questions</u>

Instructions: Please select one answer for each of the following questions.

1. What is your race/ethnicity?
__White
__Black or African American
__American Indian or Alaska Native
__Asian
__Native Hawaiian or Pacific Islander
__Latinx/Hispanic
__Two or more Race/Ethnicities
__Race/Ethnicity unknown
__Other
__Prefer not to answer

2. What is your gender
__Male
__Female
__Gender Non-Binary
__Transgender
__Other
__Prefer not to answer

3. How old are you? ____

4. What is your grade level?
__Freshman
__Sophomore
__Junior
__Senior

Appendix 5 – The Modified Erikson Psychosocial Stage Inventory

The Modified Erikson Psychosocial Stage Inventory (MEPSI)
(Darling-Fisher & Leidy, 1988)

Instructions: We would like to know a little about you and how you view your situation. Here are some thoughts that most people have about themselves at one time or another. Please read each sentence and select the number, on the scale of 1 (Hardly ever true) to 5 (Almost always true), which shows how often the sentence is true of you. Don't spend a lot of time thinking about your response. There are no right or wrong answers. Please do not omit any answers.

How often is this true of you?

1. I've got a clear idea of what I want to be.
2. The important things in life are clear to me.
3. I've got it together.
4. I know what kind of person I am.
5. I like myself and am proud of what I stand for.
6. I change my opinion of myself a lot.
7. I feel mixed up.
8. I can't decide what I want to do with my life.
9. I find I have to keep up a front when I'm with people.
10. I don't really feel involved.
11. I'm warm and friendly.
12. It's important to me to be completely open with my friends.
13. I care deeply for others.
14. I had (have had) a close physical and emotional relationship with another person.
15. I find it easy to make close friends.
16. I get embarrassed when someone begins to tell me personal things.
17. I keep what I really think and feel to myself.
18. I think it's crazy to get too involved with people.
19. I'm basically a loner.
20. I prefer not to show too much of myself to others.

<u>Scoring</u>

Five positive and five negative items are used to describe attributes derived from successful resolution and unsuccessful resolution, respectively, of a given stage or crisis. This yields 10 items per subscale, corresponding to the eight stages of development. Items are assigned to subscales as follows:

<u>Scale</u>	<u>Items (Positive</u>	<u>-</u>	<u>Negative)</u>
Identity - Confusion	1, 2, 3, 4, 5		6, 7, 8, 9, 10
Intimacy - Isolation	11, 12, 13, 14, 15		16, 17, 18, 19, 20

A subscale score is obtained by reversing the values of negative items and computing a mean for any subject answering a minimum of three of the five positive items and three of the five negative items included in the scale. The aggregate MEPSI score is obtained by computing the mean of the eight subscale scores. A low score (1-2) reflects a predominance of negative attributes, and a high score (4-5) reflects a predominance of positive attributes, i.e., the higher the score the stronger the positive attributes. If a dichotomy (Low, Hi) is desired, the data should be cut at 4, with scores < 3.9 and considered low and > 4 considered high.

Appendix 6 – The UCLA Loneliness Scale Version 3

The UCLA Loneliness Scale Version 3
(Russell, 1996)

Instructions: Participants rate each item on a scale from 1 (Never) to 4 (Often).

Indicate how often each of the statements below is descriptive of you.

*1. How often do you feel that you are "in tune" with the people around you?
2. How often do you feel that you lack companionship?
3. How often do you feel that there is no one you can turn to?
4 How often do you feel alone?
*5. How often do you feel part of a group of friends?
*6. How often do you feel that you have a lot in common with the people around you?
7. How often do you feel that you are no longer close to anyone?
8. How often do you feel that your interests and ideas are not shared by those around you?
*9. How often do you feel outgoing and friendly?
*10. How often do you feel close to people?
11. How often do you feel left out?
12. How often do you feel that your relationships with others are not meaningful?
13. How often do you feel that no one really knows you well?
14. How often do you feel isolated from others?
*15. How often do you fee1 you can find companionship when you want it?
*16. How often do you feel that there are people who really understand you?
17. How often do you feel shy?
18. How often do you feel that people are around you but not with you?
*19. How often do you feel that there are people you can talk to?
*20. How often do you feel that there are people you can turn to?

Scoring

The items with an asterisk are reverse scored.

Appendix 7– Social Provisions Scale

Social Provisions Scale
(Russell & Cutrona, 1987)

Instructions: In answering the following questions, think about your current relationships with friends, family members, co-workers, community members, and so on. Please indicate to what extent each statement describes your current relationships with other people. Use the following scale to indicate your opinion.

Strongly Disagree	Disagree	Agree	Strongly Agree
1	2	3	4

So, for example, if you feel a statement is very true of your current relationships, you would respond with a 4 (Strongly Agree). If you feel a statement clearly does not describe your relationships, you would respond with a 1 (Strongly Disagree).

1. There are people I can depend on to help me if I really need it.
2. I feel that I do not have close personal relationships with other people.
3. There is no one I can turn to for guidance in times of stress.
4. There are people who depend on me for help.
5. There are people who enjoy the same social activities I do.
6. Other people do not view me as competent.
7. I feel personally responsible for the well-being of another person.
8. I feel part of a group of people who share my attitudes and beliefs.
9. I do not think other people respect my skills and abilities.
10. If something went wrong, no one would come to my assistance.
11. I have close relationships that provide me with a sense of emotional security and well-being.
12. There is someone I could talk to about important decisions in my life.
13. I have relationships where my competence and skill are recognized.
14. There is no one who shares my interests and concerns.
15. There is no one who really relies on me for their well-being.
16. There is a trustworthy person I could turn to for advice if I were having problems.
17. I feel a strong emotional bond with at least one other person.
18. There is no one I can depend on for aid if I really need it.
19. There is no one I feel comfortable talking about problems with.
20. There are people who admire my talents and abilities.
21. I lack a feeling of intimacy with another person.
22. There is no one who likes to do the things I do.
23. There are people who I can count on in an emergency.
24. No one needs me to care for them.

Scoring

A score for each social provision is derived such that a high score indicates that the individual is receiving that provision. Items that are asterisked should be reversed before scoring (i.e., 4=1,

3=2, 2=3, 1=4).

1. Guidance: 3*, 12, 16, 19*
2. Reassurance of Worth: 6*, 9*, 13, 20
3. Social Integration: 5, 8, 14*, 22*
4. Attachment: 2*, 11, 17, 21 *
5. Nurturance: 4, 7, 15*, 24*
6. Reliable Alliance: 1, 10*, 18*, 23