LONELINESS, MEANING IN LIFE, AND DEPRESSIVE SYMPTOMOLOGY IN COLLEGE STUDENTS

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ABSTRACT

ABIGAIL NICOLE OEHLER: Loneliness, Meaning in Life, and Depressive Symptomology in College Students
(Under the direction of Dr. Danielle Maack)

The present study aimed to better understand the relationship between loneliness, meaning in life, and depressive symptoms in college students. Two-hundred and forty-seven participants, ages 18-37, completed self-report measures about their experience with depressive symptoms (Depression Anxiety Stress Scale), loneliness (UCLA Loneliness Scale- Version 3), and meaning in life (Meaning in Life Questionnaire). The following was hypothesized: 1) symptoms of depression, loneliness, and meaning in life will be significantly related; 2) meaning in life will mediate the relation between loneliness and depressive symptoms. Results demonstrated all constructs were associated as expected (ps<.001). Contrary to hypothesis, meaning in life did not mediate the relation between loneliness and depressive symptomatology. However, post hoc regression analysis illustrated that loneliness was the only unique predictor of depressive symptoms. This study suggests more research is warranted on understanding specific mechanisms relating loneliness to depressive symptoms in college students.
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Major Depressive Disorder (MDD) is the most common mental health diagnosis and affects 350 million people worldwide (World Health Organization, 2016). Clinical depression is more than just the passing feeling of sadness; it is a syndrome that includes the experience over a two week period (most of the day nearly every day) of either depressed mood, as indicated by either subjective self-report or observation made by others or diminished interest or pleasure in all, or almost all, activities in addition to four (or more) of the following symptoms: significant decrease or increase in appetite and weight; insomnia or hypersomnia; psychomotor agitation or retardation (observable by others); fatigue or loss of energy every day; feelings of worthlessness or excessive or inappropriate guilt; diminished ability to think or concentrate, or indecisiveness; and/or recurrent thoughts of death or suicidal ideation (American Psychiatric Association, 2013). The severity and multitude of these negative symptoms have the potential to become debilitating. These symptoms can consume one’s life and lead to overall functional difficulties. In the United States in 2014, an estimated 15.7 million adults experienced at least one depressive episode, which accounted for 6.7% of the U.S. adult population (Center for Behavioral Health Statistics and Quality, 2015). Lifetime prevalence of depression is 16.6% (Kessler et al., 2005). However, broken down by gender, prevalence rates are 21.3% for females and 12.7% for males (Kessler et al., 1994).

In addition to the staggering prevalence rates, the sequela of MDD accounts for almost 400 million disability days per year in the United States alone (Merikangas, Ames, & Cui, 2007). Economically, in the year 2000 the overall cost of depression in the United States was estimated at $83.1 billion. The breakdown of this cost was $26.1
billion in medical costs, $5.4 billion in suicide mortality costs, and $51.5 billion in indirect workplace costs (i.e., missing work or not being productive while at work; Greenberg, Kessler, & Birnbaum, 2003).

Specifically related to college students, accounts of mental health difficulties have grown drastically (Gallagher, 2014). It is estimated that the prevalence in college students is higher than that of the general population (Ibrahim, Kelly, Adams, & Glazebrook, 2013). The numbers of those affected by depression are rising, making it an increasing cause for concern for the population on college campuses. Even more concerning, a study completed at Emory University found that 85% of students with moderately severe to severe depressive symptoms were not receiving treatment (Garlow et al, 2008).

Results from the National Survey of Counseling Directors in 2006 indicated that the directors on college campuses are aware of the increasing concern of mental health conditions such as depression (Gallagher, 2007). In 2006 the American College Health Association found that 47% of women and 38% of men in college experienced depressive symptoms to the extent they could not function on at least one occasion. More specifically, examples include times when the student missed class, could not concentrate while in class, or had difficulty completing class assignments secondary to depressive symptomology.

In addition to increased rates of mental health concerns, 92% of counseling center directors reported concern that psychopathology intensity, such as pronounced presence of symptoms, on campus had also increased. More specifically, directors reported 40% of students documented as struggling with severe mental health issues such as major depressive disorder and anxiety disorders (Gallagher, 2007). Furthermore, the directors
stated that 8% of their student clients experienced symptoms so severe they could not continue their educational pursuits, 16% were referred for psychiatric evaluation, and 25% were prescribed psychotropic medications (Gallagher, 2007). Unfortunately, the experience of major depression among college students is multifaceted and exacerbating this experience can be academic stress, lack of social support, inadequate sleep schedules, and overall changes during the transition to college (Keith, 2010). Thus having a clearer understanding of factors related to the experience of depressive symptomology in college students is worthy of additional study.

One known risk factor for the experience of depression is insufficient social support (Smith, Marsden, & Hout, 2011). This is concerning as the number of close confidants an individual reports has declined in the past decades (Smith, Marsden, & Hout, 2011). For example, in the year 1985, the General Social Survey reported that the average number of people one had to confide in was 2.94, while in the year 2004 that number dropped to 2.08. Sadly, by 2006 that number decreased all the way to zero (Smith, Marsden, & Hout, 2011). Major changes that often occur to students during their college transition, including leaving parents and childhood friends behind, reduces social networks and may diminish their close confidants (McPherson, Smith-Lovin, & Brashears, 2006). A study of undergraduates demonstrated that students who were socially isolated were six times more likely to be affected by depressive symptoms (Hefner & Eisenerg, 2009). In addition to feeling isolated, depressed students noted a decrease in enjoyment and desire for sociability in leisure activities. It is of note that even mildly depressed students indicated significant decline in enjoyment of social leisure activities (Blanco & Barnett, 2014). Individuals suffering from depression often report
having fewer positive responses from others and more negative responses of rejection (Gotlib, 1992). These responses can lead to failure to maintain intimate relationships and decreased feeling of belonging (Hagerty, Williams, Coyne, & Early, 1996). The sudden reduction of social networks upon transitioning to college may contribute to loneliness, causing students to be more susceptible to disorders such as depression because their social relationships feel threatened (Dill & Anderson, 1999). Without close confidants and supportive social networks, one might be faced with depressive symptoms.

**Loneliness**

Loneliness arises when one subjectively feels that his/her relationships are inadequate (Fees, Martin, & Poon, 1999). Loneliness is not the feeling of merely being alone. In fact, one can be lonely while not alone, and one can be alone without being lonely. This experience is more than a passing feeling, but rather a lasting sense that one’s relationships are lacking in meaning or depth. The distressing feeling of loneliness results when people do not have the quality or quantity of social relationships to satisfy them in their life (Weiten, Dunn, & Hammer, 2015). The experience of loneliness has been increasing and impacts millions of Americans (Peplau & Perlman, 1982; Rubenstein & Shaver, 1982). Adolescents and young adults are more susceptible to feelings of loneliness, however no age group is immune (Brennan, 1982; Rubenstein & Shaver, 1982).

Similar to depression, loneliness is highly prevalent among university students (Cutrona, 1982; Ponzetti 1990; Shaver, Furman, & Buhrmester, 1985). Those who do report loneliness endorse a tendency to feel shy, depressed, or both (Maroldo, 1981; Ouellet, & Joshi, 1986). To illustrate the ubiquitous nature of this feeling, a study
completed with over 354 college freshman found that 75% felt lonely at least part of the time, with 40% reporting their loneliness as moderate to severe (Cutrona, 1982). In another conducted with a sample 377 freshman and sophomores, students answered a 51-item questionnaire using a Likert scale on whether they agreed with statements regarding relationships, self-concept, alcohol consumption, and various health behaviors. Men reported higher rates of loneliness than women, with 25.9% of males and 16.7% of females reporting they felt a deep sense of loneliness (Knox, Vail-Smith, & Zusman, 2007).

Negative views regarding one’s social relationships have been shown to contribute to the manifestation of depressive symptoms (Vanhalst, Luyckx, Teppers, et al., 2012). A self-report study done with 134 first-year freshman obtained results from questionnaires regarding life events, social support, and cognitive appraisal at the beginning of the semester and again six weeks later. Results indicated that loneliness was one of the variables most strongly consistent with depression. Also, findings of this study indicated that loneliness preceded depression (Rich & Scovel, 1987). In fact, loneliness has been found to increase depression (Wei, Russel, & Zakalik, 2005).

For example, a study assessing college freshman concluded that the more social support students experienced, the more they were shielded from and less affected by life stressors (Cohen, Sherrod, & Clark, 1986). Also, when presented with life stressors, non-lonely students tended handle them with a more optimistic manner (Brissette, Scheier, & Carver, 2002). A study regarding sense of belonging and psychological functioning was conducted using 379 college students. Results were obtained using self-report measures regarding sense of belonging, social support, relationship conflicts, community
involvement, religious service attendance, loneliness, depression, anxiety, suicidality, and history of psychiatric treatment. Results indicated that the higher sense of belonging students reported, the better the psychological functioning, such as mental health and social well-being, was of depressed students. (Hagerty et. al, 1996) Students who are lonely report dissatisfying social relationships that are not very connected (Hays & DiMatteo, 1987) exhibit few positive experiences, and are unhappy with their relationships with others (Ponzetti, 1990). Additionally, individuals affected by loneliness tend to be more pessimistic, shy, and unassertive. Because of these attributes, making and keeping personal connections might prove to be a difficult task (Ponzetti, 1990). The absence of these personal connections and relationships with others can cause one’s perception of life to lack meaning (Stillman, et. al, 2009).

**Meaning in Life**

Another variable that may have associations with both symptoms of depression and loneliness is the construct of meaning in life. Humans often seek to find meaning and purpose in their lives. When people ask what the meaning of life is, Reker and Wong (1998) claim what they really are trying to discover is “What is worth living for?” and “What is the purpose of life?” (pg. 220). More specifically, the researchers describe personal meaning as the “cognizance of order, coherence and purpose in one’s existence, the pursuit and attainment of worthwhile goals, and an accompanying sense of fulfillment” (Reker & Wong, 1988 p. 221) Furthermore, they state that personal meaning is related to value, purpose, coherence, and belief systems. With meaning, individuals experience increased well-being and decreased psychopathology (Wong, 2012). Specifically, Wong (2012) asserts that, “meaning is the foundation of positive
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psychology because it is the key component to positive affect, well-being, physical health, resilience, relationship, achievement, spirituality, successful aging, and dying well” (p. XLIV). Wong (2012) defines meaning as having four necessary components that must be present for one’s life to be meaningful. These components are purpose, understanding, responsible action, and enjoyment or evaluation.

Research has linked increased depressive symptoms with low meaning in life. For example, a study completed in Greece using the Questionnaire of Self Evaluated Depressive Symptoms (QD2), Purpose in Life Test (PIL), and General Health Questionnaire (GHQ) found that the higher one’s meaning in life is, the less depressive symptomatology the person exhibits (Kleftaras & Psarra, 2012). The researchers also found that people experienced more meaning when they were involved in social activities, which in turn was related to decreased depressive symptomology. Overall results of the study supported the position that the higher the meaning of life one endorses, the better their psychological health, personal health, social function, anxiety, sleep, and depressive symptoms (Kleftaras & Psarra, 2012). A study conducted with 329 undergraduates at Texas A&M University assessed meaning in life and depression using self-report measures from the Life Regard Index (LRI), Personal Meaning Profile (PMP), and the Depression Scale of the Personality Assessment Inventory (PAI). In this study, students with high levels of meaning were found to have lower depressive symptoms. This nonclinical study of young adults suggests that perceived meaning is related to one’s mental health (Mascaro & Rosen, 2005). Similarly, another college study asked students to provide self-report, web-based date entry on a daily basis related to activities throughout the day. Results indicated that as the number of positive social experiences
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Loneliness, increased, so did meaning in life. Additionally, low meaning in life was associated with increased endorsement of depressive symptoms (Machell, Kashdan, Short, & Nezlek, 2014).

Loneliness also presents a link to meaning in life. Wolf (2010) asserted that, “even a person who is so engaged, however, will not live a meaningful life if the objects or activities with which she is so occupied are worthless” (p. 9). This illustrates the idea that loneliness can arise when one feels their relationships are inadequate, or lack depth and meaning. In a self-report study conducted with graduate students, Yeung and Fan (2013) found that the greater people perceived their social isolation, the lower their life meaning. Furthermore, it was illustrated that perceived social isolation was a significant predictor of loneliness.

Indeed, social relationships are a large aspect of how one finds meaning in life. In a study conducted with 800 high school and university students, participants completed self-report measures using the UCLA Loneliness Scale and the Existential Scale (meaning in life). Researchers found a significant correlation between loneliness and life meaningfulness and concluded that the higher one’s loneliness, the lower life meaning they exhibited (Tomsik, 2015). Across four studies conducted with undergraduate students, feelings of loneliness and rejection were related to low life meaning. To assess this, social exclusion was manipulated experimentally in the first two studies. In the first study, confederates declined to meet with participants after viewing an introductory video participants made of themselves. In the second study, participants engaged in a computer ball-throwing game in which they were not thrown the ball at all after being thrown the ball at first. In the remaining two studies, participants completed the Meaning in Life
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Questionnaire (MLQ) and the UCLA Loneliness Scale (UCLA). It was found that people perceive less meaning when one’s sense of belonging is not met (Stillman, et. al, 2009). When people think they fit within the world their sense of meaning is greater (Steger, 2008). Meaning in Life is an important construct to consider because it can affect overall well-being and has been linked to both loneliness and depressive symptoms.

Present Study

The present study aimed to better understand the relationship between loneliness, depression, and meaning in life in college students. More specifically, the following was hypothesized: 1) symptoms of depression, loneliness, and meaning in life will be significantly related; 2) meaning in life will mediate the relation between loneliness and depressive symptoms.

Method

Participants

Participants consisted of 247 undergraduate psychology students attending a large university in the southeastern region of the United States. Ages ranged from 18 to 36 years (M=19.07, SD=1.61). The sample was largely female (73.7%) with the ethnic breakdown of the sample as follows: 62.3% Caucasian; 6.1% Hispanic; 21.1% African American; 2% Asian; 0.4% Native American/Alaskan Native; 4.9% Multiracial; and 3.2% Unanswered.

Measures

Depression Anxiety Stress Scale (DASS-21; Lovibond & Lovibond, 1995). The DASS-21 is a 21 item self-report measure of symptoms of depression, anxiety, and stress experienced over the past week. Items are rated on a 4-point Likert-type scale ranging
from 0 (did not apply to me at all) to 3 (applied to me very much, or most of the time).
The DASS-21 has demonstrated excellent psychometric validity (Lovibond & Lovibond, 1995). The internal consistency of the scales in the present sample were good (DASS-dep: $\alpha = .87$, DASS-anx: $\alpha = .75$, DASS-stress: $\alpha = .79$). Only the depression scale was used in the current study as the dependent variable of level of depression symptomology.

UCLA Loneliness Scale-Version 3 (UCLA; Russell, 1996). The UCLA is a 20-item self-report measure that assess an individuals’ feeling of isolation and perceived loneliness. Participants were asked to rank how often they felt each item from 1 (Never) to 4 (Always). In this study, the UCLA was used to assess the construct of loneliness. The internal consistency of the scale in the present sample was excellent (UCLA $\alpha = .90$).

Meaning in Life Questionnaire (MLQ; Steger et al., 2006). The MLQ is a 10-item self-report questionnaire consisting of two scales Presence of Meaning in Life and the Search for Meaning in Life. The Presence of Meaning in Life is measured by how much participants feel their lives have meaning. The Search for Meaning in Life is measured by how much participants seek to find meaning and understanding in their lives. Each participant answered the questions on a 7-point scale ranging from 1 (Absolutely Untrue) to 7 (Absolutely True). The current study used the Presence in Meaning in Life scale to assess overall perceived meaning in life of the participants. The internal consistency of the scale present in the sample was poor (MIL presence $\alpha = .60$).

**Procedure**

The University of Mississippi’s Institutional Review Board approved all procedures for the study. Participants were recruited via Sona Systems, an online psychology subject pool resource system, for a larger overall study related to Disgust and
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Anxiety. At scheduled times, participants presented to the ADEPT Lab for the study. Following written informed consent, participants were administered a structured clinical interview, completed a packet of measures related to individual difference and psychiatric symptom variables, and asked to complete a series of behavioral approach tasks. Only the aforementioned measures were used in the present study. Participants received either research credit or extra course credit for their participation.

**Results**

**Preliminary Analyses**

Data were previously cleaned. Initial correlation analysis was run to assess relations among variables of interest. As expected, depression, loneliness, and meaning in life were all significantly related \( (p < .001) \). More specifically, loneliness and depressive symptoms were positively related while meaning in life was negatively associated with both loneliness and depressive symptoms. A correlational matrix including scale means is presented in Table 1. In an attempt to determine if any potential gender differences were present among constructs, independent sample t-tests were conducted. Results from these analyses suggested that there was no significant gender difference on any construct of interest (loneliness, meaning in life, depressive symptoms). On Levene’s test, for each construct, equal variance was assumed with results of the t-tests non-significant \( (p \text{ ranging from } .08-.95) \).

**Primary Analyses**

For the primary analysis, a mediation analysis was conducted to test the hypothesis that Meaning in Life mediates the relation between loneliness and depressive symptoms. Using Hayes (2013) PROCESS model (bootstrapping 5000 iterations), the
indirect modeling was not significant (95% CI = - .0139 – .0318) indicating that Meaning in Life did not mediate the relation between loneliness and depressive symptomatology.

To further understand the relation between variables, post hoc regression analysis was completed to test if meaning in life and loneliness significantly predict depressive symptoms. The results of regression indicated that the two predictors explained 31.9% of the variance (F(2,222)=51.90 p<.001). Further, it was found that only loneliness significantly predicted depressive symptoms (β = .52 p<.001).

**Discussion**

The present study aimed to further understand the associations among depressive symptoms, meaning in life, and loneliness in a college sample. As expected, all variables of interest were significantly related. Loneliness and depression were positively related, suggesting that higher loneliness scores are related to higher endorsement of depressive symptoms. This is in line with previous research that underscores the importance of social support as a protective factor from depressive symptoms. As college is a time for many life changes, increased isolation and separation from previous social support may happen. The importance of maintaining or securing new support during this transition time may prove instrumental to decreasing both loneliness and depressive symptoms.

Meaning in life and depressive symptoms were negatively related. Therefore, the more meaning in life one perceives, the less depressive symptoms they experience. Meaning in life and loneliness were also negatively related, in which the more meaning in life one perceives, the less depressive symptoms he/she experiences. Theoretically these associations are expected and were the basis for testing the mediation model.
Contrary to hypothesis, meaning in life did not mediate the relationship between loneliness and depression. It was thought that in individuals who experienced higher meaning in life, this experience would account for the relation between loneliness and depression. However, it could be that loneliness and lack of perceived social support is a more significant factor in influencing depression. This lack of social support may contribute to negative views of self that are commonly associated with depression. Depressive symptoms may make it more difficult for an individual to seek out social support as well as maintain established relationships.

To further explicate the relationship among the different constructs, post hoc regression analysis demonstrated that it was actually loneliness that was the unique predictor of depressive symptoms. This finding suggests that when individuals experience loneliness, meaning in life is no longer a predictive factor for depressive symptoms, as opposed to the hypothesized path. Theory suggests that social support is an important aspect to consider in influencing depression, and the results indicating that loneliness- a perceived sense of lack of social support, support this assertion. Since meaning in life and loneliness are correlated, perhaps meaning in life is influenced by how much social support one views they have or don’t have. It would be of interest to further study the relationship between meaning in life and loneliness to better understand why loneliness is a larger predictor of depression. Perhaps one can feel life has meaning but lack relationships with people to share that meaning with, which could lead to loneliness and subsequent depressive symptoms. Future studies should look further into what specifically contributes to loneliness. Since loneliness was found to be only unique predictor of depressive symptoms, it would be of interest to further understand this
relationship and what it is about loneliness that makes it more influential. Furthermore, people may find meaning in an area such as their religion or career, but lack meaning in social relationships, which in turn leads to loneliness. Further studies could be done to assess if a lack of meaning in social relationships is a bigger predictor of depressive symptoms than a lack of meaning in other domains of life.

Although this study offers additional information for the understanding of depressive symptoms in college students, there are several limitations to note. First, these data come from an archival dataset using a cross-sectional design with a non-clinical sample of college students. Future studies could look more closely at loneliness in college students with clinical diagnoses of depression to see if the results can be replicated. Although the sample is largely White, the ethnic breakdown is reflective of the population of students at the university. Studies with a more diverse ethnic breakdown would be important to assess any potential ethnic differences in the experience of loneliness, meaning in life and depressive symptoms.

**Conclusions**

This study aimed to better understand the relationship between loneliness, meaning in life, and depressive symptoms in college students. It was hypothesized that all constructs of interest would be significantly related and that meaning in life would meditate the relationship between loneliness and depression. Contrary to hypothesis, it was found that loneliness was the only unique predictor of depressive symptoms. Many studies have been completed linking two of the three constructs of loneliness, meaning in life, and depression. However, this is one of the first known studies looking at the relationship of all three constructs together. As loneliness is a relatively common
experience in college students, and the predictive utility of loneliness with depressive symptoms is high, further studies explicating this relationship in college students is warranted.
References


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doi:10.1001/archpsyc.62.6.593


doi:10.4236/psych.2012.34048


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Table 1. Means and Intercorrelations among variables of interest

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>Loneliness</th>
<th>Meaning in Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>DASS-Dep</td>
<td>2.62</td>
<td>3.52</td>
<td>.55**</td>
<td>-.27**</td>
</tr>
<tr>
<td>Loneliness</td>
<td>37.4</td>
<td>11.3</td>
<td>Loneliness</td>
<td>-.44**</td>
</tr>
<tr>
<td>Meaning in Life</td>
<td>17.58</td>
<td>5.53</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note. M = mean; SD = standard deviation; DASS-Dep = Depression, Anxiety, Stress Scale 21- Depression subscale; Loneliness = UCLA Loneliness Scale; Meaning in Life = Presence of Meaning in Life scale of the Meaning in Life Questionnaire. *p < .001