Factors Predictive of Depression in First-Year College Students

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ABSTRACT
Starting college is a challenging time for first-year students and is often accompanied by emotions such as depression, which can negatively affect academic performance and quality of life. This descriptive correlational study examined stress, coping, depressive symptomology, spirituality, and social support in a convenience sample of first-year students (N = 188) from two private colleges. Results indicated that 45% of students demonstrated greater than average levels of stress and 48% reported clinically significant depressive symptomology. Significant relationships existed between depressive symptoms and stress (p < 0.01) and depressive symptoms and social support (p < 0.01). Less social support was associated with more stress (p < 0.01). The results suggested that interventions targeting stress reduction in first-year students should be considered for decreasing depressive symptoms to enhance their college experience. [Journal of Psychosocial Nursing and Mental Health Services, 53(2), 38-44.]
Ajusting to college life can be a stressful experience for first-year students; they face stressors that differ from their peers who are not in college. These stressors require the use of previously developed coping mechanisms as well as the development of new strategies to effectively adjust to university life. Because of the challenges faced when adapting to these life changes, college students are at risk of developing depressive symptomatology. Depressive symptoms can lead to negative life events, the most significant being suicide. The purpose of this descriptive correlational study was to examine stress, coping, depressive symptomatology, spirituality, and social support in a convenience sample of first-year students (N = 188) from two private colleges.

DEPRESSION IN COLLEGE STUDENTS

The overall incidence of mental health issues, including depressive symptoms, has been increasing in college students. In a survey completed by university counseling centers (N = 293), 92% reported an increase in the number of students seeking assistance for mental health issues during the past several years (Gallagher, 2012). Common mental health-related symptoms reported by college students (N = 66,887) include feeling lonely (60.6%), feeling overwhelmed by all they have to do (87.1%), and feeling so depressed it is difficult to function (33.2%) (American College Health Association, 2014).

Depressive symptoms can negatively impact both the personal and academic lives of college students. Often, first-year college students face academic pressures and expectations that are considered greater than what they experienced in high school (Rayle & Chung, 2007). The development of depressive symptoms may have a significant impact on the ability of college students to successfully complete academic requirements.

In an investigation of undergraduate students (N = 2,495), 44% reported experiencing emotional difficulties that directly affected their academic performance (Eisenberg, Gollust, Golberstein, & Hefner, 2007). Students who feel overwhelmed may demonstrate general malaise about completing the academic work that is required, leading to poor study habits. Another study examined the relationship between depression and academic performance of undergraduate college students (N = 330) (Hysenbegasi, Hass, & Rowland, 2005). Students experiencing depressive symptoms missed significantly more classes than those who did not experience depressive symptoms (14.64 versus 2.99) and experienced a drop in their grade point average (average = 0.49). However, students who received treatment for their depressive symptoms were able to raise their grade point average back to a level that was similar to their peers (Hysenbegasi et al., 2005).

Separation from their well-established social networks has been identified as a stressor for first-year college students. Sociologist Nancy Schlossberg developed a theory of mattering for college students based on her research on the development of self-concept in college students. According to Schlossberg (1989), mattering is defined as “the experience of others depending on us, being interested in us, and being concerned with our fate; while the experience of marginality results in opposite feelings—the feeling of not fitting in and not being needed or accepted” (p. 8). Schlossberg reported that first-year college students often feel marginal, as though they do not matter in their new social environment. This feeling of not mattering to others can lead to increased stress, negatively affecting the lives of college students (Schlossberg, 1989).

The importance of social support was evaluated in a study examining the relationship between depressive symptoms and loneliness in college students (N = 370) (Vanhalst, Luyckx, Raes, & Goossens, 2012). The results of this investigation demonstrated that both peer- and parent-related loneliness were positively correlated with depressive symptoms (Vanhalst et al., 2012). Thus, as students perceived lower levels of social support from their families and friends, they were at greater risk of developing depressive symptoms.

The most significant negative outcome associated with depressive symptoms is suicide. Currently, suicide is considered the second leading cause of death in college-age students (Suicide Prevention Resource Center, n.d.). It has been reported that as many as 8.6% of college students have considered suicide within the past 12 months. Unfortunately, many of these students act on their suicidal thoughts, with as many as 1.4% reporting they have attempted suicide in the past year (American College Health Association, 2014).

In a study sponsored by the American Foundation for Suicide Prevention, college students (N = 729) were screened for suicidal ideations and depression (Garlow et al., 2008). Depressive symptoms were measured by a 9-item depression module for the Patient Health Questionnaire (PHQ-9); additional questions were asked regarding current suicidal ideation and past suicide attempts. Approximately 11% of students reported current (past 4 weeks) suicidal ideation, with 16.5% having a history of lifetime suicide attempts or self-injurious episodes. Suicidal ideation was highly associated with symptoms of depression. Most students reporting moderately severe to severe depression or current suicidal ideation were not receiving any psychiatric treatment at the
time of assessment (Garlow et al., 2008).

Two protective factors have been reported to decrease the development of depressive symptoms in college students: (a) the perception of social support (from both family and peers) and (b) spirituality. In a study examining the importance of social support on the development of depressive symptoms in college women (N = 277), a lower perception of social support was found to be a significant predictor in the development of depressive symptoms (Wilson et al., 2014). Similarly, in an investigation of college men (N = 303), the perception of social support from both family and peers demonstrated significant inverse correlations with the number of depressive symptoms reported (Lamis & Lester, 2012).

The college years are an important time in the spiritual growth of young adults as they begin to search for meaning in their lives. Students who struggle with spiritually have been found to experience greater levels of mental health-related symptoms, such as feeling overwhelmed or depressed (Bryant & Astin, 2008). A large study examined the effect of spirituality on well-being in college students across the United States (N = 112,232) and reported that students with higher levels of spirituality demonstrated lower levels of emotional distress and greater abilities to cope with stress (Higher Education Research Institute, 2006).

The theoretical framework guiding the current study is based on Lazarus and Folkman’s (1984) conceptualization of stress, appraisal, and coping. According to Lazarus and Folkman (1984), psychological stress is a “particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being” (p. 19). An individual’s ability to cope in a stressful situation may directly affect their physical and emotional health (Lazarus & Folkman, 1984). For some first-year students, these stressors may be viewed as exceeding their present coping resources, thus leading to what Lazarus and Folkman (1984) would define as psychological stress. When using Lazarus and Folkman’s (1984) model as a framework, perception of peer and family support and spirituality can be viewed as antecedents with positive influence that may affect an individual’s sensitivity, vulnerability, and interpretation of psychological stress. Each of these factors can be assessed individually and in combination for the amount of impact they may have on the ability to cope.

**PURPOSE**

The purpose of the current study was to examine whether stress and other factors (i.e., social support and spirituality) predicted depressive symptoms in first-year students in two private, religious-affiliated Midwestern universities. The study aims were: (a) to describe the levels of stress, coping, and depressive symptoms; (b) to explore the relationships among stress, coping, and depressive symptoms, as well as positive influences (i.e., spirituality and family and peer support) and the impact of these variables on first-year college students; and (c) to determine which factors are most predictive of depressive symptoms.

**METHOD**

**Design**

A descriptive correlational design was used as variables were being explored for their relationships. A convenience sample of first-year students recruited from two private, religious-affiliated universities in the Midwestern United States was studied. No previous research has examined relationships between all of the variables in the current study. Based on review of the research that has been completed between several of the study variables, a conservative, small effect size between 0.20 and 0.25 was chosen. Using the correlation coefficient method for this cross-sectional study with a chosen alpha of 0.05, beta of 0.20, power of 80%, and an effect size between 0.20 and 0.25, it was estimated that a total sample size of at least 160 participants was required (Hulley, Cummings, Browner, Grady, & Newman, 2007).

**Sample**

A total of 188 students (95 from University A and 93 from University B) participated in the study. These participants were representative of the entire population of approximately 2,900 first-year students attending both universities. The inclusion criteria included: (a) first-year, full-time, first-year-on-campus college students; (b) the ability to read and write in English; and (c) age between 18 and 20. Participant demographics are noted in Table 1.

**Procedures**

The study was approved by the institutional review boards at both universities where data were collected. Students from mandatory freshmen seminar courses were offered the opportunity to voluntarily participate in the study. After class, they stayed to complete a questionnaire booklet, which took approximately 20 minutes. After completion of the booklets, all students were offered a $5 coupon that could be used to purchase items on their campus (as a stipend for their time spent) as well as information about free counseling services available on campus in case the questionnaire provoked the need to discuss their feelings.

**Measures**

Students were provided questionnaire booklets containing study instruments that were organized using the theoretical framework for the study, which was based on previous work by Lazarus and Folkman (1984). The
causal antecedents were measured by: the (a) Daily Spiritual Experiences Scale (DSES), (b) Multidimensional Scale of Perceived Social Support (MSPSS), (c) and Inventory of College Students’ Recent Life Experiences (ICSRLE). The mediating variable was measured by the Ways of Coping (WOC) Questionnaire. Outcome variable was depressive symptoms measured by the Center for Epidemiologic Studies Depression (CES-D) Scale.

Causal Antecedents
The DSES is a 16-item self-report scale used to measure an individual’s ordinary spiritual experiences in daily life (Underwood, 2006). The DSES score is generated by summing the responses for each item. Lower scores demonstrate a greater number of spiritual experiences (Underwood, 2006). For the current study, Cronbach’s alpha was 0.94.

The MSPSS was developed to address an individual’s subjective perceptions of the adequacy of social support (Zimet, Dahlem, Zimet, & Farley, 1988). The MSPSS consists of a total of 12 items that comprise three subscales: perceived social support from (a) family, (b) peers, and (c) significant others. The higher the total or subscale scores, the greater the perceived support (Zimet et al., 1988). For the current study, Cronbach’s alpha was 0.93 for the total scale and ranged from 0.90 to 0.92 for the subscales.

The ICSRLE was developed to measure the effects of everyday stress on physical and mental health of college students (Kohn, Lafreniere, & Gurevich, 1990). The ICSRLE is a 49-question self-report scale that focuses on life experiences of college students during the past month. These experiences are rated on a Likert scale, with higher scores indicating greater effects of everyday stress (Kohn et al., 1990). For the current study, Cronbach’s alpha was 0.91.

Mediating Variables
The WOC Questionnaire is a 66-item instrument containing a 4-point Likert scale and is scored through analysis of eight subscales: (a) problem-focused coping; (b) wishful thinking; (c) detachment; (d) seeking social support; (e) focusing on the positive; (f) self-blame; (g) tension reduction; and (h) keep to self. By analyzing each of the subscales independently, the method of coping used to the greatest extent can be examined. There is no cutoff score for the WOC questionnaire; however, the subscales with higher mean scores represent the most used methods of coping (Folkman & Lazarus, 1985). For the current study, Cronbach’s alpha for the eight subscales ranged from 0.62 to 0.79, with the exception of the tension reduction subscale (0.38). This subscale was not used for analysis because of low reliability.

Outcome Variable
The CES-D Scale is a 20-question self-report scale focused on the current level of depressive symptoms an individual may be experiencing, using a Likert scale ranging from 0 to 3, where 0 = rarely or none of the time and 3 = most or all of the time (Radloff, 1977).

Statistical Analysis
Data were analyzed using SPSS version 17. Using reported scores on the completed instruments, descriptive statistics were used to describe the levels of stress, depressive symptoms, perceived family and peer support, and spirituality among first-year college students.
Descriptive statistics were used to describe the use of common coping techniques (Table 2). The relationships among stress, depressive symptoms, and positive influences (i.e., spirituality and family and peer support) were explored using Pearson’s r correlations (Table 3). Simple linear regression was completed to determine the power of each individual predictor (i.e., perceived social support from family and peers, spirituality, stress, and coping) on the dependent variable of depressive symptoms. Stepwise multiple regression of depression on perceived social support from family and peers, spirituality, stress, and coping was completed to determine the factors that are most predictive of depressive symptoms in first-year college students.

**RESULTS**  
**Antecedent Variables**

For stress, the mean level as measured by the ICSRLE was 95.79 (SD = 19.03, range = 54 to 153). There were a total of 84 (45%) students demonstrating scores greater than 95 in the current study. For social support, the mean score was 22.97 (SD = 5.31, range = 4 to 28) and 22.77 (SD = 4.86, range = 4 to 29) for the family and peer subscales, respectively, of the MSPSS. For spirituality, the mean score was 55.49 (SD = 16.61, range = 16 to 87).

**Mediating Variable**

Coping was measured using the WOC. The two subscales with the highest mean coping scores represented problem-focused coping mechanisms (mean = 16.18, SD = 6.84, range = 0 to 32) and seeking social support (mean = 10.27, SD = 5.30, range = 0 to 20).

**Outcome Variable**

The CES-D Scale was used to operationalize depressive symptoms in first-year college students. The mean score on the CES-D Scale was 18.29 (SD = 11.58, range = 0 to 57), indicating depressive symptomology. A total of 90 (48%) participants demonstrated scores of 16 or higher. Participants scoring higher than 16 on this instrument are said to be demonstrating depressive symptomatology (Radloff, 1977).

Inverse relationships were present between perceived family support and stress (r = −0.347, p < 0.01) and perceived peer support and stress (r = −0.406, p < 0.01). The results indicated that as the stress level increased, less social support from both family and peers was reported.

The relationships between spirituality, stress, and depression were also examined. There were no statistically significant relationships between spirituality and either stress or depression.

Inverse relationships existed between perceived family support and depressive symptoms (r = −0.384, p < 0.01) and perceived peer support (as measured by the subscale of the MSPSS) and depressive symptoms (r = −0.369, p < 0.01). Thus, as depressive symptoms increased, less overall social support from both family and peers was perceived.

A stepwise multiple regression analysis was completed to determine the combination of factors that were most predictive of depressive symptoms. The results of the regression indicated that five variables were capable of accounting for significant increments of variance in the level of depressive symptoms. These five variables included stress, three coping subscales (keep to self, focus on positive, and wishful thinking), and perceived support from family. Three of these variables demonstrated positive beta weights: stress (beta = 0.527), keep to self (beta = 0.241), and wishful thinking (beta = 0.151). This means that as stress and the use of the emotion-focused coping mechanisms of “keep to self” and “wishful thinking” increased, the incidence of depressive symptoms also increased. Focus on the positive (beta = -0.179) and perceived family support (beta = -0.136) demonstrated negative beta weights. Thus, as the use of focus on positive coping mechanisms and perceived family support increased, the incidence of depressive symptoms decreased. The final regression model accounted for 59% of the variance in depressive symptom levels (58% adjusted) (p < 0.001).

**DISCUSSION**

The overall purpose of the current study was to explore the relationships among stress, coping, and depressive symptoms, as well as positive influences (i.e., spirituality and family and peer support) and the impact of these variables on first-year college students, and to determine the factors that are most predictive of depressive symptoms.

In this study, the mean score on the CES-D Scale was 18.29. A total of 90 (48%) participants demonstrated scores of 16 or higher. This was an alarming
finding because almost one half of the first-year students in the current study demonstrated significant depressive symptoms. These results are similar to those of other studies. In an investigation of undergraduate students (N = 2,495), 44.3% reported experiencing emotional difficulties that directly affected their academic performance during the prior 4 weeks (Eisenberg et al., 2007). Similar results were discovered when evaluating the results of the 2014 National College Health Assessment Survey. Analysis of these data demonstrated that 63.2% of students reported feeling sad during the previous 12 months and 33.2% reported feeling so depressed it was difficult to function during the previous academic year (American College Health Association, 2014).

In the current study, significant relationships existed between stress and four of the WOC Questionnaire subscales. These subscales included wishful thinking (r = 0.372, p < 0.01), keep to self (r = 0.306, p < 0.01), self-blame (r = 0.251, p < 0.01), and detachment (r = 0.247, p < 0.01). Because these are positive correlations, the results indicate that as stress levels increased, the use of these emotion-focused methods of coping also increased.

Coping strategies may be viewed as either adaptive or maladaptive depending on the demands of the situation (Lazarus & Folkman, 1984). This increase in emotion-focused coping strategies when faced with increased stress may be considered maladaptive for these first-year college students. Because emotion-focused coping assists individuals to change the way they think about a stressful situation, not work to overcome the situation, it may be maladaptive. This is especially true when academic demands, which are inherent to the college experience and unavoidable for success, may be the source of stress.

A stepwise multiple regression analysis showed that two of the variables in this study demonstrated negative beta weights: focus on positive (beta = –0.179) and perceived family support (beta = –0.136). Thus, as the use of focus on positive coping mechanisms and perceived family support increased, the incidence of depressive symptoms decreased. This finding is also consistent with previous research. Studies have demonstrated that students who are able to use problem-focused coping are better able to adapt to stress, thus decreasing the incidence of negative consequences of stress (Chaplin, 2006; Dyson & Renk, 2006; VanBoven & Espelage, 2006). Studies have also demonstrated the importance of the perception of strong family support in the mental health of college students (Lamis & Lester, 2012; Wilson et al., 2014).

No statistically significant relationships were noted between spirituality and either stress or depression. This finding does not support what has been documented in the literature. Several studies have demonstrated a negative correlation between higher levels of spirituality and depressive symptoms in college students (Bryant & Astin, 2008; Muller & Dennis, 2007; Turner-Musa & Lipscomb, 2007). One possible explanation for the unexpected findings in this study may be the high degree of spirituality in the participants because all were students at religious-affiliated institutions. Thus, there was limited variability in the concept of spirituality, leading to the lack of a significant relationship. Another possible explanation is that although the DSES has demonstrated a significant relationship to depressive symptoms in other studies, it may not have measured spirituality accurately in this population of first-year college students.

**IMPLICATIONS FOR NURSING**

Nurses working with first-year college students should be aware of the high incidence of depressive symptoms in this population because the consequences of unrecognized and untreated depression can be significant. Specific nursing interventions should be implemented to assist first-year college students in the development of adaptive methods to cope with stress. Research has demonstrated that emotion-focused coping placed students at greater risk of developing depressive symptoms, whereas problem-focused coping was associated with more positive outcomes (Dyson & Renk, 2006; VanBoven & Espelage, 2006). Thus, interventions focused on teaching students how to decrease the

### TABLE 3

**CORRELATIONS BETWEEN THE TOTAL SCALE SCORES USING PEARSON’S r CORRELATIONS**

<table>
<thead>
<tr>
<th></th>
<th>Family Support Subscale of MSPSS</th>
<th>Friends Support Subscale of MSPSS</th>
<th>Total DSES Score</th>
<th>Total ICSRLE Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer support subscale of MSPSS</td>
<td>0.550a; p &lt; 0.001</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Total DSES score</td>
<td>–0.196b; p = 0.007</td>
<td>–0.051; p = 0.489</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total ICSRLE score</td>
<td>–0.347b; p &lt; 0.001</td>
<td>–0.406b; p &lt; 0.001</td>
<td>0.081; p = 0.266</td>
<td></td>
</tr>
<tr>
<td>CES-D Scale score</td>
<td>–0.384b; p &lt; 0.001</td>
<td>–0.369b; p &lt; 0.001</td>
<td>0.141; p = 0.054</td>
<td>0.701b; p &lt; 0.001</td>
</tr>
</tbody>
</table>

Note. MSPSS = Multidimensional Scale of Perceived Social Support; DSES = Daily Spiritual Experiences Scale; ICSRLE = Inventory of College Students’ Recent Life Experiences; CES-D = Center for Epidemiologic Studies Depression.

a Correlation is significant at the 0.05 level (two-tailed).
b Correlation is significant at the 0.01 level (two-tailed).
use of emotion-focused coping and increase the use of problem-focused coping may decrease the incidence of depressive symptoms in this population.

This investigation has potential limitations based on the settings (private 4-year religiously affiliated universities in the Midwestern United States), high level of Caucasian participants, and self-reporting accuracy of participants. Thus, the ability to generalize these findings to first-year college students in public institutions where more diversity is evident is limited. However, previous research from more diverse college populations has demonstrated similar relationships between stress and depression (American College Health Association, 2014; Dyson & Renk, 2006). Therefore, first-year college students from diverse backgrounds who are enrolled at public as well as other private institutions should also be evaluated in regard to their experiences with stress, coping, and depressive symptoms. This exploration would allow for interventions that could be tailored specifically for these students and successfully integrated into their college experiences.

REFERENCES


