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LIFE EXPERIENCES, PERCEIVED STRESS, SOCIAL SUPPORT AND MENTAL HEALTH SERVICES: MILITARY AND NON-MILITARY COLLEGE STUDENTS

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LIFE EXPEREINCES, PERCEIVED STRESS, SOCIAL SUPPORT AND MENTAL HEALTH SERVICES: MILIATARY AND NON-MILITARY COLLEGE STUDENTS

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DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

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Abstract

This study was conducted to examine potential differences between military and non-military undergraduate students on their life experiences, perceived stress, perceived social support, and likelihood of seeking mental health services. Additionally, it looked at whether or not life experiences, perceived stress, and perceived social support predict the likelihood of seeking mental health services, and if social support plays a role in mediating the effects of life experiences and feeling stressed. A sample of 101 undergraduate students was utilized for this study. Multivariate Analysis of Covariance was used to examine the effect of the two groups on four dependent variables, and if these effects were impacted by assessing gender as a covariate. The results showed no significant multivariate effect for the group or for the covariate, gender. The first Multiple Regression analysis indicated that the set of predictor variables (life experiences, perceived stress, and perceived social support) did not predict the likelihood of seeking mental health services. The second Multiple Regression analysis indicated that perceived social support is a partial mediator between life experiences and perceived stress. The results of this study indicate that military undergraduate students appear to be doing at least as well as non-military undergraduate students.

Life Experiences, Perceived Stress, Social Support, and Mental Health Services: Military and non-Military College Students

With the plethora of research conducted on undergraduate students, there appears to be a gap in the literature in research focusing on military undergraduate students. Though they share the commonality of being a college student with non-military undergraduate students, these military students live with a different reality. They face unique difficulties and stressors that non-military students to not encounter. The most obvious unique stressor they face is that they may have been deployed or face the possibility of being deployed. Regardless of whether these deployments are war or peace keeping related, these experiences are unique to the military population and have the potential to impact all areas of military student's lives.

This study was conducted to build on prior research and contribute unique information to future research. The relationships among life experiences, perceived stress, and perceived social support have been studied in numerous populations. However, as previously mentioned, no known research has been done with military undergraduate students and how they potentially differ from non-military undergraduate students on these particular measures. Additionally, there is no known previous research to assess whether the relationships among these variables are somehow different for these two groups. Furthermore, there has not been a comparison between these two groups on the likelihood of seeking mental health services in the future. Research on the uniqueness of the military's experiences and the impact of those experiences on service

members has been done for decades; however, military undergraduate students have not been widely studied, and it is for this reason this research was conducted.

Theoretical Perspective

It is well known in the psychological literature that a person and their environment do not act independently of one another. There is an interaction between the two and each acts to influence the other. Lazarus and Folkman (1987) noted that we cannot understand the emotional life simply from the viewpoint of the environment or the person as individual an entity; rather, we must understand the relationship, or transaction between these two. They also noted that the term transaction, rather than relationship, tends to "emphasize more the dynamic interplay of the variables." This transactional theory has focused on the role transactions play in stress and coping.

Folkman (1984) noted that within the cognitive theory of stress and coping, stress is known as the relationship between the person and the environment, specifically stress occurs if the environment is appraised by the person "as taxing or exceeding his or her resources and as endangering his or her well-being." It was also noted that this theory is both relational and process oriented. In relation to the cognitive theory of stress, process oriented has two meanings. The first is that the "person and the environment are in a dynamic relationship that is constantly changing". Second, "this relationship is bidirectional, with the person and the environment each acting on the other." Additionally, the relationship perspective "means that control must be viewed in the particular person-environment relationship in which it is embedded.

As noted above, stress is conceptualized in how the person appraises their environment. These appraisals are separated into two categories, primary appraisal and

secondary appraisal, and each type of appraisal serves a specific function. A primary appraisal occurs when the transaction between the person and the environment is judged to be irrelevant, benign-positive or stressful. Of particular interest are the stressful appraisals, specifically harm/loss, threat, or challenge (Folkman, 1984). Lazarus and Folkman (1987) went on to define primary appraisals more broadly as being "concerned with the motivational relevance of what is happening, and whether something germane to our well-being is involved. Primary appraisal can be influenced by situational factors, including "the nature of the harm or threat, whether or not the event is familiar or novel, how likely it is to occur, when it is likely to occur, and how clear or ambiguous is the expected outcome" (Folkman, 1984).

A secondary appraisal is defined as the evaluation of coping resources and options (Folkman, 1984). Lazarus and Folkman (1987) noted that theses evaluative judgments are required, specifically in regards to whether any actions can be taken to improve the distressed person-environmental relationship. They further defined a secondary appraisal as a crucial supplement to the primary appraisal since "harm, threat, challenge, and benefit depend on how much control we think we can exert over outcomes." Within the secondary appraisal, coping resources are evaluated in regards to the demands of the environment. Coping resources include physical, social, psychological, and material assets (Folkman, 1984).

In addition to looking at the role transactions play in stress, research has also looked at the role transactions play in coping. Coping refers to the efforts to manage demands, regardless of the success of the efforts put forth. Additionally, coping serves two major functions: the regulation of emotions or distress (emotion-focused coping) and

the management of the problem that is causing the distress (problem-focused coping) (Folkman, 1984).

Cognitive appraisal and coping are both considered transaction variables, in that they refer to the integration of both the person and the environment in a given transaction (Folkman, Lazarus, Gruen, and DeLongis, 1986). They further specified that an appraisal occurs when a person with particular psychological characteristics appraises a specific environmental condition for a potential threat. Additionally, coping occurs when a person uses particular thoughts and behaviors to manage the demands of a person-environment transaction, specifically when that transaction has relevance to his or her well-being.

This transactional theory of stress and coping provides a nice framework for understanding the specific variables chosen for this study. Two of the dependent variables in this study, life experiences and perceived stress, relate to how a person appraises their environment and the way in which they interact with their environment. Also, perceived social support could serve as one coping resource that students may employ, while the likelihood of seeking mental health services may serve as an additional possible coping resource. It is of particular interest if military and non-military undergraduate students differ on these measures. If so, an argument could be made that these two populations differ in how they appraise situations and how they cope with possible stressful demands that result because of the transaction between the person and the environment.

Life Experiences

Negative life events have been linked with both physical health and mental health

problems. In a study assessing negative events and the common cold, Cohen, Tyrrell, and Smith (1993) found that "negative life events were associated with greater rates of clinical illness." Matheny, Ashby, and Cupp (2005) noted that greater number of life change events led to a higher likelihood that a student would be in the high-illness group. It has also been shown that the greater the number of life events and the greater the degree of personal adjustment required by the events, the higher the risk of illness and the greater the likelihood of major rather than minor illness (Rahe, 1972). Interestingly, results from Gardner et al. (1992) indicated that both positive and negative life events were significant predictors of subsequent health problems. However, they noted that negative life change events are better predictors of subsequent health status than are positive life changes.

When it comes to gender, Dalgard et al. (2006) found that women report slightly more negative life events than men do. Additional research has noted that women view more events as being stressful and appraise them as being more severe (Matheny & Cupp, 1983; Matud, 2004; Tamres et al., 2002, as cited in Matheny et al., 2005). Matheny and Cupp (1983) found that the relationship between life change and illness was much stronger for females than for males in all comparisons. They also found that with females desirable events were positively related to illness.

The experience of negative life events has also been associated with many mental health issues, including depression. Dalgard et al. (2006) found a strong association between negative life events and depression, noting that rates of depression increased in an almost linear fashion as the number of life events increased. Andrews and Wilding (2004) found that financial difficulties and personal illness or injury experienced by

undergraduate students showed a significant association with mild depression. Hirsch et al. (2007) found that individuals who experience a greater number of negative life events may be at greater risk for suicide ideation.

Life events have also been related to anxiety and anxiety disorders (Friedman et al, 2002; Sandin and Chorot, 1993). Rapee, Witlin, and Barlow (1990) found that anxious subjects reported that life events experienced before the onset of the disorder had a more negative impact than those reported by nonanxious subjects. They also found that while there were no significant differences between anxious and nonanxious subjects in the number of life events experienced, the anxious subjects perceived these events as more distressing, uncontrollable, unexpected, or undesirable. Andrews and Wilding (2004) also found that relationship difficulties, close other's illness or death, and financial difficulties (adverse events reported by undergraduates) were significantly related to anxiety.

College is a transitional time in both adolescents' and adults' lives. College students face three primary transition issues: responsibility, support, and stress. Students bear the responsibility for their own actions. They are now responsible for choosing their own classes and making their own goals. They are also expected to think independently, prepare to study on their own, and must establish their own support system. These students will likely experience stress, which can be caused by expectations, limitations, and constrictions imposed by themselves or by others (TCU Services for Students with Disabilities - Center for Academic Services). These students are facing a newfound freedom, becoming more independent. This transitional time brings about many life events, which based on the individual, could be perceived as positive or negative. These

life events could affect their psychological and / or physical health in negative ways. Additionally, these experiences could potentially have an impact on an individual's desire to seek or utilization of mental health services.

In a sample of 100 undergraduate students, Goodman, Sewell, and Jampol (1984) found that those seeking counseling reported no more negative events than their peers. However, those seeking counseling did report greater impact of those negative life events and fewer number and impact of positive events. Interestingly, they also found that it was not the actual number of negative events that differentiated those seeking counseling from those who did not. Rather, it was the perceived impact of those negative events that differentiated the two groups.

Smyth et al. (2008) looked specifically at the prevalence, type, disclosure, and severity of adverse life events in college students in multiple research studies spanning four years. They found that 55.8% to 84.5% of college students had experienced at least one adverse event during their lifetime. Of specific note is that fact that though the students may have objectively experienced an adverse event, it may not have been subjectively stressful. Therefore, prevalence rates could have been inflated. Additionally, men and women in these studies reported similar event prevalence rates. In a study asking undergraduate students to indicate exposure to adverse life events, Andrews and Wilding (2004) noted that 67% of the sample had experienced at least one adverse life event or difficulty and 24% had experienced more than one within the last year. In this study, students identified experiencing the following adverse life events: relationship difficulties (29%), close other's illness or death (28%), financial difficulties (21%), valued item lost or stolen (10%), and personal illness, injury or unwanted

pregnancy (6%).

Military college students face the same transitions as non-military college students. Additionally, they face life events that are unique to becoming a part of and being a part of the military. This is especially true today, considering our country is currently involved in the Global War on Terror, as well as other hostile and peaceful missions throughout the world. Students may be enlisted as active duty, or they may be members of the Reserves or National Guard, which currently make up 35% of all U.S. forces in Iraq –the largest deployment of citizen soldiers since World War II (National Veterans Foundation). Therefore these students face the possibility of deployment or potentially have been deployed at least once and possibly multiple times. For those who have been deployed, they face the additional transition of readjustment after returning from deployment. The possibility and reality of deployment is an experience that is unique to the military culture and is one the average undergraduate student would not experience.

The possibility and reality of deployment brings about it's own stressors for these students. Deployment itself brings about separation from family and friends, in a way that non-military students may not experience. Additionally, deployment brings the risk of suspending these students schooling or work-related duties, sometimes with little advance notice. Furthermore, some but not all deployments bring about the risk of combat related or traumatic experiences, which are unique to this group of students.

In addition to these obvious stressors that are specific to military students, they also face additional stressors in relation to their involvement in higher education. In 2008, the American Council of Education contacted with the Winston Group to conduct six focus groups with veterans and enlisted service members. The purpose of these focus

groups was to learn about their perceptions of higher education, specifically challenges these students may face in pursuing higher education. From these focus groups, Cook and Kim (2009) reported that "veterans and service members mentioned several areas of concern about currently available campus services and programs: a lack of flexibility of some campus programs with respect to military students' sometimes unpredictable deployment schedule in the armed forces; uncertainty about campus recognition of civilian courses taken while in the military and/or formal training obtained as a service member; uncertainty about earned college credits that are not recognized by other higher education institutions; and lack of strong guidance for navigating the maze of GI Bill education benefits." These stressors are unique to military students, as they are not stressors that non-military students face.

Perceived Stress

When entering college and throughout college, all students go through a process of adapting to new environments, both academic and social. Stressors have been defined as "any environmental, social, or internal demands that cause the individual to adjust his or her behavior." Life events, chronic strains, and daily hassles have been identified as three common types of stressors (Thoits, 1995, as cited in Misra, Crist, & Burant, 2003). D'Zurilla and Sheedy (1991) noted that college students, particularly during their first year, may be prone to stress, as this is a "life change experience that involves many new academic, social, and emotional demands that may test a student's coping resources." Their stress is seen as a result of the interaction between stressors and the individual's perception to and reaction to the stressors (Romano, 1992). When stress is perceived

negatively or becomes excessive, it can affect both health and academic performance (Campbell & Svenson, 1992).

Ross, Niebling, and Heckert (1999) were looking at the major sources of stress among college students and found that daily hassles (such as financial difficulties or being placed in an unfamiliar situation) were reported more often than major life events (such as starting college or a change in use of alcohol or drugs). Additionally, three of the top seven sources of stress were intrapersonal sources. The found that the top seven sources of stress frequently reported by college students were: change in sleeping habits (89%), vacations/breaks (82%), change in eating habits (74%), new responsibilities (73%), increased class workload (73%), financial difficulties (71%), and change in social activities (71%).

Prior research has shown that today's generation of college students enter college feeling "overwhelmed and more damaged than in previous years" and they "possess fewer social supports than in the past" (Levine & Cureton, 1998). In an archival study spanning thirteen years, Benton et al. (2003) noted that students seen in the more recent time periods frequently have more complex problems that include more normal problems such difficulties with relationships, as well as severe problems including anxiety and depression. More dramatically, they noted that "the number of students seen each year with depression doubled over the time period, while the number of suicidal students tripled." Misra, McKean, West, and Russo (2000) found that stress varied by gender, noting that female students reported experiencing more stressors and reactions to stressors than did male students. This does not necessarily reflect an inequality in actual

number of stressors, but could indicate that females may rate or be more willing to report their experiences as more stressful.

In addition to the average stressors experienced by undergraduate students, military college students face their own set of unique stressors. With the distinctive demands placed on the military population in their daily lives due to the nature of their job, military undergraduate students may face unique stressors above and beyond those experienced by their non-military undergraduate counterparts. Pflanz and Sonnek (2002) found that significant work stress was reported by 26% of troops and 15% described significant emotional distress related to work stressors. Though the unique aspects of the military job environment (i.e. deployments or possibility of deployments) are undoubtedly stressful, the most commonly reported sources of job stress were inadequate staffing (39%), work overload (30%), and long duty hours (30%) (Pflanz & Ogle, 2006). Individuals exposed to stressful job conditions (stressors) experience high levels of strain such as poor health and/or poor psychological well-being (Beehr, 1995; Jex, 1998, as cited in Bliese & Britt, 2001). In addition to these reported stressors, deployment may mean separation from family and friends, and disruption from ordinary life routines, schooling, or work.

Social Support

The role of social support has been defined as "the various resources provided by one's interpersonal ties" (Cohen & Hoberman, 1983) and operationalized as "the relative presence or absence of an intimate, confiding relationship" (Thoits, 1984). It has been studied as a potential coping mechanism, or buffer, for stress numerous times over and has been met with mixed results. Thoits (1984) found that social support plays primarily

a direct role, not a moderating or buffering role, in the stress process. Misra, Crist, and Burant (2003) found that social support had both a direct and a mediating effect between the primary stressor (e.g. life stress, in which life stressors have been identified as language differences, acculturation stress, academic concerns, financial concerns, and interpersonal stress) and secondary stress (e.g. academic stress). According to Cohen and McKay (1984), the "buffering hypothesis states that psychological stress will have deleterious effects on the health and well-being of those with little or no support, while these effects will be lessened or eliminated for those with stronger support systems. In contrast, pathological outcomes for non-stressed control subjects should be relatively unaffected by their level of support." Additionally, beneficial buffering effects are thought to arise from the individual's enhanced sense of mastery in coping with life stress and the avoidance of helpless feelings (Cohen & Willis, 1985; Heitzman & Kaplan, 1988, as cited in Flannery & Wieman, 1989).

Numerous studies have shown that participants with good social support are less vulnerable to psychological disorders (Cobb, 1976; Cohen & McKay, 1984, Gottlieb, 1978). Cohen and Hoberman (1983) found that when it comes to physical symptoms and depressive symptoms, perceived availability of support wholly or partly protects one from the pathogenic effects of high levels of life stress. Misra, et al. (2003) found that higher levels of life stress predicted higher levels of social support. That is, seeking higher levels of social support was predicted by greater number of adverse life events

Social support appears to be different based on gender. Zimet et al. (1988) found that women reported both greater social support from friends and significant others and symptoms related to anxiety and depression. This replicates findings in previous

research. Additionally, they argued that "despite greater perceived social support, college women may experience more symptoms of stress than college men." Weckwerth and Flynn (2006) also noted that women scored significantly higher than males on three of six subscales of the Social Provisions Scale, designed to measure perceived support. They elaborated by stating that the results suggested that "women were significantly more likely to feel they could count on others in times of need and to have a sense of emotional connection that provided safety and security than their male counterparts." Rosenthal and Wilson (2008) found that gender was related to level of psychological distress, noting that women had a higher level of distress than men.

The findings in regards to gender are important when looking at whether social support is different between military and non-military college students. One reason it is important is that although more women are a part of today's military than before, currently making up 16% of this all-voluntary military force (Johnson et al., 2007), the military population is still comprised primarily of men. Additionally, it is important to know if social support is unique in the military culture in any way because of the nature of camaraderie that is encouraged and often experienced among military personnel. What about those who are in the Reserves or National Guard? Is their experience of social support different than their fellow military peers being that they are not embedded in the military culture and live primarily civilian lives?

Seeking Mental Health Services

The utilization of mental health services is one way in which individuals can find support to help deal with negative life events, stressful events, and other stressors that college students face on a daily basis. In a study looking at college students' perceptions

of psychological services, Turner and Quinn (1999) found that although the university students indicated a strong belief that good psychological health is important in maintaining good health and that spending time doing things to improve one's mental and emotional health is important, only half of the students seemed inclined to seek professional help when they have a problems they do not know how to resolve. They also noted that while a vast majority of the respondents indicated that they would be willing to consult with mental health providers for problems of serious mental illness (96%) and suicidal ideation (90%), less than half indicated a likelihood of seeking help for a death in the family, changing their lifestyle to improve their health, or coping with stress and problems at work or school. When these results were compared with the results from the American Psychological Association's (APA) public education campaign, Turner and Quinn (1999) noted that their sample of university students were less likely to seek professional help for alcohol or drug problems, eating disorders, depression and anxiety, making lifestyle changes, or coping with stress.

In a study of 266 university students, Yorgason, Linville, & Zitzman (2008) found that 17% had used the university mental health services. When these students were asked why they did not use these services, they reported the following reasons: they did not have enough time, they did not know enough about services, they were embarrassed to use services, and they did not think the services would help. Additionally, when asked what would keep them from utilizing university mental health services in the future, they noted lack of time and lack of knowledge of services as the top two reasons. Robbins and Tanck (1994) found that students were far more likely to use informal sources of help

than formal sources, noting that adolescents often rely heavily on their peers for social support.

Yorgason et al. (2008) noted that "the strongest demographic predictor of services use was sex," adding that "male students were less likely than female students to have used these services." Gonzalez, Alegria, and Prihoda (2005) found that males were 50% less likely to be willing to seek mental health treatment, 34% less likely to report comfort talking to a professional, and 29% significantly more likely to be embarrassed if others knew about help seeking, when compared to females. Fauteuz, McKelvie, and deMan (2008) also found that men demonstrated a more negative attitude towards seeking psychological help than did women.

In their university sample Vogel et al. (2007) found "initial evidence for the importance of being prompted to seek help and knowing someone who had sought help. Specifically, those who received mental health services were more likely to have been prompted to seek help and to know someone else who had sought help than the general population." Additionally, their results suggest that "those close to an individual may be related to the decision to seek mental health services, as most people in treatment were specifically prompted to seek help by someone close to them and knew someone who had sought treatment." Furthermore, they found that "those who were prompted to seek help and who knew someone who had sought help had more positive attitudes towards seeking therapy, and those who knew someone had greater willingness to seek mental health services."

To date the majority of mental health services research on military personnel has been done upon return from deployment and typically involves looking at psychological

distress, attitudes towards seeking mental health services, and barriers to care. Additionally, many of the studies are focused on military personnel who have been involved in or exposed to combat. Warner et al (2008) found that "soldiers who had deployed were less likely to seek assistance than were those who had not deployed." However, it is also important to look at the experiences of those military personnel who do not have combat exposure and those who are not deployed, but may experience stress due to the nature of their job and military demands. This speaks to the importance of understanding the life events and perceived stress of military personnel throughout their time in the military, regardless of their deployment status. It is imperative that we not only focus on the distress experienced related to combat, but also recognize that military personnel may experience distress in their daily lives.

The current research study is looking at military versus non-military college students in the hopes that comparisons can be made between the two groups and their life experiences, perceived stress, and perceived social support, as well as their use of mental health services in the past year and their likelihood of seeking mental health services in the future. It could lead to new ways to reach out to both the military and non-military university student populations in an effort to encourage them to seek help in times of stress.

Purpose of this Study

The current study examined the potential differences in life experiences, perceived stress, perceived social support, and likelihood of seeking mental health services between military versus non-military undergraduate students. Three different analyses, specifically Multivariate Analysis of Covariance (MANCOVA), and Multiple

Regression, were used in this study. The MANCOVA was conducted to determine differences between military and non-military undergraduate students on a variety of measures. The Regression analyses were conducted to determine if certain variables were predictive of others and if certain variables mediate the effects of other variables. Two independent variables (military vs. non-military undergraduate students) were looked at in this study. Additionally, four dependent variables were examined, including life experiences, perceived stress, perceived social support, and likelihood of seeking mental health services. Finally, one covariate, gender, was also included in the analyses.

A number of research questions were examined in this study. First, do military and non-military undergraduate student participants differ significantly on their life experiences, perceived stress, perceived social support, and likelihood of seeking mental health services scores, and are these differences impacted by gender? Additionally, do life experiences, perceived stress, and perceived social support predict likelihood of seeking mental health services? Finally, does social support play a role in mediating the effects of life experiences and feeling stressed?

The hypotheses were as follows: 1) It was hypothesized that there will be significant differences between military versus non-military undergraduate students in regards to life experiences, perceived stress, perceived social support, and likelihood of seeking mental health services, with gender contributing to these significant differences, 2) It was hypothesized that life experiences, perceived stress, and perceived social support would predict the likelihood of seeking mental health services, and 3) It was hypothesized that social support would play a mediating role in the effects of life experiences and perceived stress.

Method

Participants

One hundred and one participants were recruited from an undergraduate institution in Oklahoma. Of these participants 59.4% (60) were male and 40.6% (41) were female. They ranged in age from 18-49, with the mean age being 26. Additionally, 79.2% of the participants were Caucasian (80), 50.5% were in their senior year (51), 95% were enrolled full-time (96), and 34.7% were single (35). Furthermore, the majority, 54.5% were employed (55), 38.6% were working part-time (39), and 63.4% were earning less than $20,000 (64). Of the participants, 13.9% (14) reported having sought mental health services during the previous year. Finally, the majority of this sample, 59.4% (60), was military students. See Table 1 for a full description of all demographic information. See Table 2 for a full description of all military specific demographic information.

Procedure

In collaboration with the Center for Educational Development and Research (CEDAR) at the University of Oklahoma, the survey was set up through an online site, Survey Monkey, and the corresponding link was distributed through email to undergraduate students. The link lead the participants to the survey materials, which included the cover letter (introducing the research study, explaining the purpose and importance of the study, and providing other relevant information regarding the study), consent form, a demographic questionnaire, and three additional questionnaires, including the Life Experiences Survey (LES), the Perceived Stress Scale (PSS-14), and the Multidimensional Scale of Perceived Social Support. Completion of the surveys

indicated voluntary consent to participate. The informed consent form used in this study is shown in appendix A.

Measures

Demographic questionnaire

All participants were asked to complete a short demographic questionnaire developed by the researcher, which assessed for the following: age, gender, race, year and status in college, current employment status, current annual income, parent's annual income, current relationship status, length of current relationship, if they have sought mental health services in the past year, the likelihood they would seek mental health services in the next year if they felt it necessary, and whether or not they are currently or have been in the military. Additionally, those who are currently or have been in the military were asked to answer additional questions assessing whether they are currently active duty or a veteran of the military, which branch they are / were a part of, number of years of service, and whether or not they have been deployed. If they have been deployed, the demographic questionnaire also looked at how many times they have been deployed and the length of time of each deployment, if they served in a combat zone, and whether or not they have the possibility of being deployed in the upcoming year. The demographic form used in this study is shown in appendix B.

Life Experiences Survey (LES)

The 57-item Life Experiences Survey (LES) (Sarason, Johnson, & Siegel, 1978) will be used to assess events that students have experienced during the past year. The items were chosen to represent life changes frequently experienced by individuals in the general population (Sarason et al., 1978). The LES consists of fifty-seven self-report

items. It asks the participants to rate separately the desirability and impact of events that they have experienced. They are asked to indicate those events experienced during the last past year (0-6 months and / or 7 months – 1 year) (Siegel, Johnson, & Sarason, 1979), as well as (a) whether they viewed the event as being positive or negative and (b) perceived impact of the particular event on their life at the time of the occurrence. Scores on each item range from extremely negative (-3) to extremely positive (+3). Summing the impact ratings of those events experienced as negative by the participant derives a negative change score; summing the impact ratings of those events experienced as positive by the participant derives a positive change score. A total change score is obtained by adding these two change scores, representing the total amount of rated change, both desirable and undesirable (Sarason et al., 1978).

Test-retest correlations for the positive change score were found to be approximately .19 and .53. The reliability coefficients for the negative change score were about .56 and.88. The coefficients for the total change score were approximately .63 and.64. For all the previously mentioned values, $p < .001$ (Sarason et al., 1978). The format of the LES allows for individualized rating of the impact of events plus the availability of separate measures of positive and negative change. This makes it especially appropriate for use in future research concerning how people deal with the stresses and strains of modern life (Sarason et al., 1978). The Life Experiences Survey used in this study is shown in appendix C.

Perceived Stress Scale (PSS-14)

The 14-item Perceived Stress Scale (PSS-14) (Cohen, Kamarck, & Mermelstein, 1983) will be used to measure the degree of stress students are feeling in their lives.

Some examples of the items include "In the last month, how often have you felt nervous and "stressed," and "In the last month, how often have to you felt that you were on top of things" (Cohen et al., 1983). The PSS-14 consists of fourteen likert scale items. Scores on each item range from never (0) to very often (4). PSS scores are obtained by reversing the scores on the seven positive items including questions 4, 5, 6, 7, 9, 10, and 13), and then summing across all 14 items.

The coefficient alpha reliability was found to be approximately .84-.86. Additionally, the test-retest correlation ranged from .55-.85 (Cohen et al., 1983). In regards to construct validity, Perceived Stress Scale scores have been shown to be moderately related to responses on other measures of appraised stress, as well as to measures of potential sources of stress as assessed by event frequency (Cohen and Williamson, 1988). They have also shown that self-reported physical illness, negative health behaviors, and increased life dissatisfaction have been associated with elevated stress, as measured by the Perceived Stress Scale. The Perceived Stress Scale - 14 used in this study is shown in appendix D.

Multidimensional Scale of Perceived Social Support

The 12-item Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet, Dahlem, Zimet, & Farley, 1988) will be used to measure participants' levels of perceived social support from three main sources: family, friends, and a significant other. Some examples of items include "I get the emotional help and support I need from my family," "I can talk about my problems with my friends," and "I have a special person who is a real source of comfort to me" (Zimet et al., 1988). The MSPSS consists of twelve likert scale items, with scores on each item ranging from 1 (very strongly

disagree) to 7 (very strongly agree). Additionally, it provides scores for three subscales (family, friends, and a significant other) as well as a total score of perceived social support. Higher scores indicate a perception of greater levels of social support as well as satisfaction with social support.

Cronbach's coefficient alpha was found to be approximately .88 for the total scale. Furthermore, the values for the Family, Friends, and Significant Other subscales were .87, .85, and .91, respectively. The test-retest reliability for the total scale was .85; for the Family, Friends, and Significant Other subscales it was .85, .75, and .72, respectively (Zimet et al., 1988). This study also found that in regards to construct validity, perceived social support was negatively related to reported anxiety and depression symptoms. This finding was supported by correlations between the MSPSS subscales and the Depression and Anxiety subscales of the Hopkins Symptom Checklist (HSCL). The Multidimensional Scale of Perceived of Social Support used in this study is shown in appendix E.

Results

The major statistical analyses employed in this study were a One-Way Multivariate Analysis of Covariance (MANCOVA) and two Multiple Regression analyses. The MANCOVA was conducted to determine the effect of the two groups (military students, non-military students) on four dependent variables (life experiences, perceived stress, perceived social support, and likelihood of seeking mental health services), and if these effects were impacted by assessing gender as a covariate. The first Multiple Regression analysis was conducted to determine if life experiences, perceived stress, and perceived social support predict the likelihood of seeking mental health

services. The second Multiple Regression analysis was conducted to examine if perceived social support plays a role in mediating the effects of life experiences and perceived stress.

One-Way MANCOVA

A One-Way MANCOVA was conducted to determine the effect of the two groups (military students and non-military students) on four dependent variables (life experiences scores, perceived stress scores, perceived social support scores, and likelihood of seeking mental health services), and if these effects were impacted by assessing gender as a covariate. Box's *M* was not significant which indicates that there was no violation of homogeneity of variance-covariance matrix assumption. The MANCOVA revealed no significant multivariate effect for group, Wilks' Lambda = .931, $F(4,93) = 1.729$, $p > .05$, partial eta squared = .069, power = .511. The MANCOVA also revealed no significant multivariate effect for the covariate, gender, Wilks' Lambda = .924, $F(4,93) = 1.919$, $p > .05$, partial eta squared = .076, power = .560. Since the overall test was not significant, the univariate main effects were not examined. See Table 3 for results of MANCOVA.

Multiple Regressions

The first Multiple Regression analysis was conducted to determine if the set of predictor variables (life experiences, perceived stress, and perceived social support) predict the likelihood of seeking mental health services. Results indicate that life experiences are negatively correlated with likelihood of seeking mental health services, which indicates that the greater the negative life experience scores the greater the likelihood of seeking mental health service. Results also indicated that perceived stress is

positively correlated with likelihood of seeking mental health services, which indicates that the greater the perceived stress the greater the likelihood of seeking mental health services. Finally, results indicated that perceived social support is positively correlated with likelihood of seeking mental health services, which indicates that the greater the social support the greater the likelihood of seeking mental health services. However, none of these correlations is significant at $p < .05$, using a one-tailed test. The coefficient of determination, $R^2 = .005$. This means that the set of predictors contributed to 0.5% of the variance in likelihood of seeking mental health services. The F-test indicates that the R^2 value for the model is not statistically significant: $F(2,95) = .149$, $p = .93$. See table 4 for the results of the multiple regression.

The second Multiple Regression analysis was conducted to determine if perceived social support plays a role in mediating the effects of life experiences and perceived stress. A bivariate correlation was conducted to see if the predictor variable was significantly correlated with the criterion variable, if the predictor variable was significantly correlated with the potential mediator, and if the mediating variable was significantly correlated with the criterion variable. The analysis showed that life experiences (the predictor variable) was negatively and significantly correlated with perceived stress (the criterion variable), which indicates that the greater the negative life experiences score the greater the stress, and the greater the positive life experiences score the lower the stress. The analysis also showed that life experiences were positively and significantly correlated with perceived social support (the potential mediator variable), which indicates that the greater the negative life experiences score the lower the social support, and the greater the positive life experiences score the higher the social support.

After computing for the association between life experiences and perceived social support, the raw regression coefficient = .02 and the standard error = .01. Additionally, the analysis showed that perceived social support was negatively and significantly correlated with perceived stress, which indicates that the greater the social support the lower the stress. Finally, results indicated that perceived social support and perceived stress were correlated, when controlling for life experiences. After doing a linear regression for the association between perceived social support and perceived stress, while controlling for life experiences, the raw regression coefficient = -1.28 and the standard error = .66. Results suggest that perceived social support is a partial mediator between life experiences and perceived stress. See table 5 for the results of the multiple regression.

Discussion

This specific research study was conducted for various reasons. The main reason was to knowingly include military undergraduate students in research. This population is understudied in the literature, and given the current status of our military involvement around the world, it is imperative that this population be better understood. This research study was looking at potential differences between military and non-military undergraduate students in the following areas: life experiences, perceived social support, perceived stress, and likelihood of seeking mental health services, and to see if these differences were affected by gender. Additionally, this study examined if life experiences, perceived social support, and perceived stress were predictive of the likelihood of seeking mental health services. Finally, this study looked at the potential mediating role that perceived social support may play in the relationship between life

experiences and perceived stress.

Many results of this study are surprising when looking at the composition of the sample utilized in combination with previous research findings. The composition of this sample appears unique, in that the majority of the military student sample was male (77%, n=47), while the majority of the non-military student sample was female (68%, n=28). Though the MANCOVA results did not indicate significant differences between the groups on the dependent variables, using gender as a covariate, it should be noted that the non-military population reported greater negative life experience scores. Dalgard et al. (2006) noted that women report slightly more negative life events than men do. Therefore, the results of the current study in regards to this variable should not be surprising, considering the gender composition of the two groups. However, these results are a bit surprising based on the fact that 85% of the military sample have been deployed, with 83% having been deployed to a combat zone. Not knowing the timing of these deployments, especially if they occurred more than a year prior to taking the survey, could impact how they might have been reported on the Life Experiences Survey.

Previous research from Misra, McKean, West, and Russo (2000), found that stress varied by gender, noting that female students reported experiencing more stressors and reactions to stressors than did male students. Additionally, Zimet et al. (1988) noted that "despite greater perceived social support, college women may experience more symptoms of stress than college men." Additionally, previous research focusing on social support has found that women report greater social support from friends and significant others (Zimet et al., 1988). However, the current study findings were not consistent with previous research since current results indicated that there was not an

overall significant difference between the military and non-military undergraduate students, while using gender as a covariate, in their reporting of perceived social support.

Furthermore, prior research has noted that "the strongest demographic predictor of mental health services use was sex, adding that "male students were less likely than female students to have used these services" (Yorgason et al., 2008). Additionally, Warner et al (2008) found that "soldiers who had deployed were less likely to seek assistance than were those who had not deployed." Based on the composition of the two groups, it is not surprising that our study did not find an overall significant difference in regards to likelihood of seeking mental health services.

The current study found, through the first Multiple Regression analysis, that the set of predictor variables (life experiences, perceived stress, and perceived social support) did not significantly predict the likelihood of this sample seeking mental health services. When looking at previous research findings in conjunction with the sample used in the current study, this finding is not all that surprising. In previous research, it has been found that a sample of university students were less likely to seek professional help for alcohol or drug problems, eating disorders, depression and anxiety, making lifestyle changes, or coping with stress (Turner and Quinn, 1999). Robbins and Tanck (1994), found that students were far more likely to use informal sources of help than formal sources, noting that adolescents often rely heavily on their peers for social support.

Finally, the second Multiple Regression analysis looked at the possibility of perceived social support playing a mediating role between life experiences and perceived stress, provided findings that are consistent with previous research. The current study found significant correlations (at the .01 level) between the predictor variable and the

criterion variable, between the predictor variable and the potential mediating variable, and the mediating variable and the criterion variable. Additionally, the current study findings found perceived social support to be a partial mediator in the relationship between life experiences and perceived stress. Previous research by Cohen and Hoberman (1983) found that when it comes to physical symptoms and depressive symptoms, perceived availability of support wholly or partly protects one from the pathogenic effects of high levels of life stress.

Based on the results from this study, military undergraduate students appear to be doing at least as well in regards to these specific areas as the non-military undergraduate students, even with their unique experiences from being a part of the military. This is a positive outcome. Though underreporting of experiences and symptoms on self-report measures is a possibility, perhaps these results could be indicative of other factors. Perhaps being an undergraduate student has a positive impact on how these military students deal with certain life experiences and stressors, and how they perceive social support. Additionally, perhaps those military students who seek out higher education deal better with the impact of life experiences and stressors, and they may seek out additional social support as a result. It should also be noted that the military sample in this study varied from the non-military sample, in that the military sample was older and the majority of the military students who completed the surveys were married. These two factors could also potentially play a role in the outcomes of this study and the lack of significant differences between the two groups. Based on the variables assessed and the subsequent results of this study it is difficult to draw definitive conclusions on why these groups are not presenting significantly different from each other. However, the

suggestions mentioned above are possible factors for why this sample of military undergraduate students appear to be doing at least as well as the non-military sample.

Limitations of the Current Study and Future Recommendations

The main limitation to this study was the sample employed. The sample used for this study was taken from a mid-western University, in a limited geographic region, and therefore may not be representative when it comes to certain characteristics, namely age, gender, and ethnicity. These characteristics could potentially play a role in how these individuals view the impact of both negative and positive life experiences, how they view their perceived social support and perceived stress, and how likely they are to seek formal mental health services. Additionally, this sample may differ from the general population in that each participant is enrolled in higher education, with the majority of them being in their senior year of schooling. This enrollment in higher education may provide this sample with more knowledge of and access to resources to cope with the life changes and stressful events they may experience.

Another limitation could be the use of the Life Experiences Survey. A strength of using this measure is that it looks not only at the type of events that are considered life-changing, it also looks at the impact of those events. However, one drawback to using this measure is that it only looks at events that have taken place within the last year. Additionally, it does not ask specifically about military related events (i.e. deployments). In this study, 85% of the military undergraduate students had been deployed, with 83% of them having been deployed to a combat zone, and 37.2% of them deployed to combat zone at least twice. It is possible that these deployments could significantly impact these students, but the impact of this specific event may not have been captured since it was not

specifically listed on the Life Experiences Survey and it may have occurred outside the previous year that is assessed by this particular measure. The timeframe assessed in the Life Experiences Survey could also impact the reporting of significant events by non-military students if they occurred outside that timeframe.

Conclusion

This current research study, despite its known limitations, is an attempt to look at potential differences between military and non-military undergraduate students on a variety of measures. This current research is an attempt to better understand students as a whole, specifically military undergraduate students. Based on the unique aspects of military culture, military students, while sharing the commonality of being an undergraduate student, have the potential of being exposed to different life events, different stressors, different types of support, and different attitudes towards mental health, based on the uniqueness of the demands of being in the military.

Research involving the military often takes place post-deployment, and in the past has taken place years, and even decades after these men and women have served their country. Current research is trying to capture the uniqueness of the military experience and the issues these men and women face both during and after their service in a more timely fashion than has been done in the past. This current study was an effort to include a population that is often understudied, at least in this context, and in relation to the specific variables that were of focus in this study. Even though this current study did not provide findings that differ from previous research findings, it is imperative that research with this particular population continue, as the impact of their experiences and the subsequent consequences may become more apparent in the upcoming years.

Table 1

Demographic Characteristics of Military and Non-Military Study Groups, by Gender

Characteristic	Proportion (%) (n) Military Students		Proportion (%) (n) Non-Military Students	
	Men (N=47)	Women (N=13)	Men (N=13)	Women (N=28)
Age				
18-24	21.3 (10)	30.8 (4)	92.3 (12)	92.9 (26)
25-29	46.8 (22)	53.8 (7)	7.7 (1)	7.1 (2)
30-39	23.4 (11)	7.7 (1)	-------	-------
40+	8.5 (4)	7.7 (1)	-------	-------
Ethnicity				
Caucasian	85.1 (40)	84.6 (11)	69.2 (9)	71.4 (20)
African American	-------	--------	7.7 (1)	-------
American Indian	8.5 (4)	15.4 (2)	-------	-------
Hispanic/Latino	4.3 (2)	-------	15.4 (2)	10.7 (3)
Asian	-------	-------	7.7 (1)	14.3 (4)
Other	2.1 (1)	-------	-------	-------
Year In School				
Freshman	6.4 (3)	-------	-------	7.1 (2)
Sophomore	6.4 (3)	15.4 (2)	-------	3.6 (1)
Junior	34.9 (16)	30.8 (4)	30.8 (4)	32.1 (9)
Senior	42.6 (20)	46.2 (6)	69.2 (9)	57.1 (16)
Enrolled				
Full-Time	93.6 (44)	92.3 (12)	92.3 (12)	100 (28)
Part-Time	2.1 (1)	7.7 (1)	7.7 (1)	-------
Employed				
Full-Time	23.4 (11)	15.4 (2)	15.4 (2)	7.1 (2)
Part-Time	27.7 (13)	38.5 (5)	38.5 (5)	57.1 (16)
Relationship Status				
Single	19.1 (9)	15.4 (2)	46.2 (6)	64.3 (18)
In a Relationship	12.8 (6)	23.1 (3)	46.2 (6)	25.0 (7)
Cohabitating	14.9 (7)	-------	-------	7.1 (2)
Married	44.7 (21)	53.8 (7)	7.7 (1)	3.6 (1)
Separated/Divorced	8.5 (4)	7.7 (1)	-------	-------

Table 2

Demographic Characteristics of Military Only Group

Characteristic	Proportion (%) (n) Military Students	
	Men (N=47)	Women (N=13)
Military Status		
Active Duty	14.9 (7)	30.8 (4)
Veteran	85.1 (40)	69.2 (9)
Branch		
Air Force	19.1 (9)	23.1 (3)
Army	27.7 (13)	30.8 (4)
Army Reserve	-------	-------
Coast Guard	-------	-------
Marine Corps	21.3 (10)	15.4 (2)
National Guard	17.0 (8)	30.8 (4)
Navy	14.9 (7)	-------
Years of Service		
1-5 Years	63.8 (30)	38.5 (5)
6-10 Years	25.5 (12)	46.1 (6)
10+ Years	10.6 (5)	15.4 (2)
Been Deployed		
Yes	89.4 (42)	69.2 (9)
No	10.6 (5)	30.8 (4)
Number of Times Deployed		
1-3 Times	73.4 (35)	61.6 (8)
4-6 Times	10.6 (5)	7.7 (1)
Deployed to Combat Zone		
Yes	76.6 (36)	61.5 (8)
No	14.9 (7)	15.4 (2)
Number of Times Deployed to Combat Zone		
1-3 Times	68.1 (32)	69.6 (8)
4-6 Times	4.3 (2)	-------
Will Be Deployed in Next 12 Months		
Yes	8.5 (4)	-------
No	72.3 (34)	53.8 (7)

Table 3

Multivariate Analysis of Covariance (MANCOVA)

	F	p	Partial Eta Squared	Observed Power
Group	1.729	.150	.069	.511
Gender	1.919	.114	.076	.560

Table 4

Summary of *Regression Analysis for Variables Predicting Likelihood of Seeking Mental Health Services*

Variable	B	*SE B*	*β*
Life Experiences	-.001	.006	-.014
Stress	.008	.015	.061
Social Support	.040	.098	.044

Table 5

Intercorrelations Between Variables for Multiple Regression

	Life Experiences	Stress	Social Support
Life Experiences	1.00	-.326**	.269**
Stress		1.00	-.264**
Social Support			1.00

** Correlation is significant at the 0.01 level (2-tailed)

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APPENDIX A

Example of the Informed Consent Form

INFORMATION SHEET FOR CONSENT TO PARTICIPATE IN A RESEARCH STUDY

My name is Lauren Ridener, and I am a graduate student in Counseling Psychology in the Department of Educational Psychology at the University of the Oklahoma. I am requesting that you volunteer to participate in my dissertation titled *Life Experiences, Perceived Stress, Social Support, and Mental Health Services: Differences between Military and non-Military College Students*. You were selected as a possible participant because you are currently enrolled as an undergraduate student. Please read this information sheet and contact me to ask any questions that you may have before agreeing to take part in this study.

Purpose of the Research Study: The purpose of this study is to better understand potential differences in the life experiences, perceived stress, social support, and utilization of mental health services in military and non-military undergraduate students.

Procedures: If you agree to be in this study, you will be asked to do the following things: Complete a demographic questionnaire and a few short surveys.

Risks and Benefits of Being in the Study: The study has the following risks: There is a minimal risk that you may experience some emotional distress as a result of answering some of the questions on the survey. The benefits to participation are: You may experience a sense of well-being for helping to further the knowledge and understanding of undergraduate students, especially the possible uniqueness of being a military undergraduate student.

Compensation: You will not be compensated for your time and participation in this study.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to participate will not result in penalty or loss of benefits to which you are otherwise entitled. If you decide to participate, you are free not to answer any question or discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled.

Length of Participation: Completion of the survey and demographic questionnaire should require approximately 15-20 minutes of your time. You can feel free to stop filling out the surveys and/or questionnaires and not to participate in the study at any time.

Confidentiality: The records of this study will be kept private and no one other than the researcher will have access to your responses. In published reports, there will be no information included that will make it possible to identify you as a research participant. Research records will be stored securely. Only approved researchers will have access to the records.

Contacts and Questions: If you have concerns or complaints about the research, the researcher conducting this study can be contacted at either (405) 325-2914 or Lridener@ou.edu. The student's advisor, Terry M. Pace, Ph.D., can be contacted at either (305) 325-2914 or tpace@ou.edu. In the event of a research-related injury, contact the researcher. You are encouraged to contact the researcher if you have any questions. If you have any questions, concerns, or complaints about the research and wish to talk to someone other than the individuals on the research team, or if you cannot reach the research team, you may contact the University of Oklahoma – Norman Campus Institutional Review Board (OU-NC IRB) at (405) 325-8110 or irb@ou.edu.

APPENDIX B

Demographic Questionnaire

Demographic questionnaire

1. Today's Date: _____

2. Age: _____

3. Gender: _____ Male _____ Female

4. Ethnicity: (Check all that apply):
   _____ African-American _____ American Indian _____ Asian

   _____ Caucasian _____ Hispanic/Latino _____ Other:
   _____

5. Current year in college: _____ Freshman _____ Sophomore _____ Junior
   _____ Senior

   5a. Currently enrolled as: _____ Full-time student _____ Part-time student

6. Current employment status: _____ Employed _____ Unemployed

   6a. If employed, length of time in current position: _____ Years _____ Months

   6b. If employed, currently employed as: _____ Full-time _____ Part-time

7. Current annual income:
   _____ $0-$19,999 _____ $20,000-$39,000 _____ $40,000-$59,999
   _____ $60,000-$79,999 _____ $80,000-$99,999 _____ > $100,000

8. Parent's annual income (best estimate):
   _____ $0-$19,999 _____ $20,000-$39,000 _____ $40,000-$59,999
   _____ $60,000-$79,999 _____ $80,000-$99,999 _____ > $100,000

9. Current relationship status:
   _____ Single _____ In a relationship _____ Living together / Cohabitating, but not married
   _____ Married _____ Separated / Divorced

   9a. If currently in a relationship, length of current relationship: _____ Years
   _____ Months

10. Have you sought mental health services in the past year? _____ Yes _____ No

11. What is the likelihood you would seek mental health services in the next year if you felt overwhelmed or wanted help dealing with stress or a stressful situation?

1	2	3	4	5
Absolutely Would Not	Probably Would Not	Possibly	Probably Would	Definitely Would

12. Are you currently in the military or a military veteran? _____ Yes _____ No

12a. If yes, please check one: _____ Active _____ Veteran

12b. Which branch: _____ Air Force _____ Army
_____ Army Reserve _____ Coast Guard
_____ Marine Corps _____ National Guard
_____ Navy

12c. Number of years of service: _____ Years _____ Month

12d. Have you been deployed? _____ Yes _____ No

12e. If yes, # of times deployed: _____

12f. Length of deployment(s) (please list length of time for each deployment if deployed more than once):

_____
_____

12g. Were any of these deployments to a combat zone? ___ Yes ___ No

12h. If yes, how many deployments were to a combat zone?

_____

13. Will you be deployed within the next 12 months?
_____ Yes _____ No _____ Possibly

Thank you for taking the time to complete this survey!

APPENDIX C

The Life Experiences Survey (LES)

The Life Experiences Survey

Listed below are a number of events which sometimes bring about change in the lives of those who experience them and which necessitate social readjustment. *Please check those events which you have experienced in the recent past and indicate the time period during which you have experienced each event.* Be sure that all check mark s are directly across from the items they correspond to.

Also, for each item check below, *please indicate the extent to which you viewed the event has having a positive or negative impact on your life* at the time the event occurred. That is, *indicate the type and extent of impact that the event had.* A rating of -3 would indicate an extremely negative impact. A rating of 0 indicated no impact either positive or negative. A rating of +3 would indicate an extremely positive impact.

SECTION 1

Extremely Negative	Moderately Negative	Somewhat Negative	No Impact	Slightly Positive	Moderately Positive	Extremely Positive
←----------						----------→
-3	**-2**	**-1**	**0**	**+1**	**+2**	**+3**

		0 mo-6 mo	**7 mo-1 yr**	**-3**	**-2**	**-1**	**0**	**+1**	**+2**	**+3**
1	Marriage									
2	Detention in jail or comparable institution									
3	Death of spouse									
4	Major change in sleeping habits (much more or much less sleep)									
5	Death of close family member									
5a	Mother									
5b	Father									
5c	Brother									
5d	Sister									
5e	Grandmother									
5f	Grandfather									
5g	Other (specify):									
6	Major change in eating habits (much more or much less food intake)									
7	Foreclosure on mortgage or loan									

8	Death of close friend									
9	Outstanding personal achievement									
10	Minor law violations (traffic tickets, disturbing the peace, etc.)									
11	*Male*: Wife/girlfriend's pregnancy									
12	*Female*: Pregnancy									

		0 mo-6 mo	**7 mo-1 yr**	**-3**	**-2**	**-1**	**0**	**+1**	**+2**	**+3**
13	Changed work situation (different work responsibility, major change in working conditions, working hours, etc.)									
14	New job									
15	Serious illness or injury of close family member									
15a	Mother									
15b	Father									
15c	Brother									
15d	Sister									
15e	Grandmother									
15f	Grandfather									
15g	Spouse									
15h	Other (specify):									
16	Sexual difficulties									
17	Trouble with employer (in danger of losing job, being suspended, demoted, etc.)									
18	Trouble with in-laws									
19	Major change in financial status (a lot better or a lot worse off)									
20	Major change in closeness of family members (increased or decreased closeness)									
21	Gaining a new family member (through birth, adoption, family member moving in, etc.)									
22	Change of residence									
23	Marital separation from mate (due									

	to conflict)									
24	Major change in church activities (increased or decreased attendance)									
25	Marital reconciliation with mate									
26	Major change in number of arguments with spouse (a lot more or a lot less arguments)									
27	*Married male*: Change in wife's work outside the home (beginning work, ceasing work, changing to a new job, etc.)									

		0 mo-6 mo	**7 mo-1 yr**	**-3**	**-2**	**-1**	**0**	**+1**	**+2**	**+3**
28	*Married female*: Change in husband's work outside the home (beginning work, ceasing work, changing to a new job, etc.)									
29	Major change in usual type and/or amount of recreation									
30	Borrowing more than $10,000 (buying home, business, etc.)									
31	Borrowing less than $10,000 (buying car, TV, getting school loan, etc.)									
32	Being fired from job									
33	*Male*: Wife/girlfriend having abortion									
34	*Female*: Having abortion									
35	Major personal illness or injury									
36	Major change in social activities, e.g., parties, movies, visiting (increased or decreased participation)									
37	Major change in living conditions of family (building new home, remodeling, deterioration of home, neighborhood, etc.)									
38	Divorce									

39	Serious injury or illness of close friend									
40	Retirement from work									
41	Son or daughter leaving home (due to marriage, college, etc.)									
42	Ending of formal schooling									
43	Separation from spouse (due to work, travel, etc.)									
44	Engagement									
45	Breaking up with boyfriend / girlfriend									
46	Leaving home for the first time									
47	Reconciliation with boyfriend / girlfriend									
Other recent experiences which have had an impact on your life. List and rate.										
48										
49										
50										

SECTION 2: STUDENT ONLY

Extremely Negative | Moderately Negative | Somewhat Negative | No Impact | Slightly Positive | Moderately Positive | Extremely Positive

←----------→

-3 -2 -1 0 +1 +2 +3

		0 mo-6 mo	**7 mo-1 yr**	**-3**	**-2**	**-1**	**0**	**+1**	**+2**	**+3**
51	Beginning a new school experience at a higher academic level (college, graduate school, professional school, etc.)									
52	Changing to a new school at same academic level (undergraduate, graduate, etc.)									
53	Academic probation									
54	Being dismissed from dormitory or other residence									
55	Failing an important exam									

56	Changing a major									
57	Failing a course									
58	Dropping a course									
59	Joining a fraternity / sorority									
60	Financial problems concerning school (in danger of not having sufficient money to continue)									

61. What have been the top 3 stressors or concerns in your life during the past 6 months?

_____

_____

_____

62. What have been the top 3 stressors or concerns in your life during the past 12 months (if different than those listed in #61)?

_____

_____

_____

SURVEY TAKEN FROM: Sarason, I.G., Johnson, J.H., & Siegel, J.M. (1978). Assessing the impact of life changes: Development of the Life Experiences Survey. *Journal of Consulting and Clinical Psychology,46(5),* 932-946.

APPENDIX D

Perceived Stress Scale – 14 (PSS-14)

PSS-14

INSTRUCTIONS:

The questions in this scale ask you about your feelings and thoughts during THE LAST MONTH. In each case, you will be asked to indicate your response by placing an "X" over the circle representing HOW OFTEN you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate.

	Never 1	Almost Never 2	Sometimes 3	Fairly Often 4	Very Often 5
1. In the last month, how often have you been upset because of something that happened unexpectedly?					
2. In the last month, how often have you felt that you were unable to control the important things in your life?					
3. In the last month, how often have you felt nervous and "stressed"?					
4. In the last month, how often have you dealt successfully with day to day problems and annoyances?					
5. In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life?					
6. In the last month, how often have you felt confident about your ability to handle your personal problems?					
7. In the last month, how often have you felt that things were going your way?					
8. In the last month, how often have you found that you could not cope with all the things that					

you had to do?					
9. In the last month, how often have you been able to control irritations in your life?					
10. In the last month, how often have you felt that you were on top of things?					
11. In the last month, how often have you been angered because of things that happened that were outside of your control?					
12. In the last month, how often have you found yourself thinking about things that you have to accomplish?					
13. In the last month, how often have you been able to control the way you spend your time?					
14. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?					

APPENDIX E

Multidimensional Scale of Perceived Social Support (MSPSS)

Multidimensional Scale of Perceived Social Support (MSPSS)

INSTRUCTIONS: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you **Very Strongly Disagree**
Circle the "2" if you **Strongly Disagree**
Circle the "3" if you **Mildly Disagree**
Circle the "4" if you are **Neutral**
Circle the "5" if you **Mildly Agree**
Circle the "6" if you **Strongly Agree**
Circle the "7" if you **Very Strongly Agree**

1. There is a special person who is around when I am in need.	1	2	3	4	5	6	7
2. There is a special person with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
3. My family really tries to help me.	1	2	3	4	5	6	7
4. I get the emotional help and support I need from my family.	1	2	3	4	5	6	7
5. I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6. My friends really try to help me.	1	2	3	4	5	6	7
7. I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8. I can talk about problems with my family.	1	2	3	4	5	6	7
9. I have friends with whom I can share my joys and sorrows	1	2	3	4	5	6	7
10. There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7
11. My family is willing to help me make decisions.	1	2	3	4	5	6	7
12. I can talk about my problems with my friends.	1	2	3	4	5	6	7