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Exploring the Role of Mindfulness on Psychological Well-Being Among College Students

Nikole Elderkin
University of Central Florida

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Exploring the Role of Mindfulness on Psychological Well-Being Among College Students

by

NIKOLE ELDERKIN

A thesis submitted in partial fulfillment of the requirements
for the Honors in the Major Program in Psychology
in the College of Sciences
and in the Burnett Honors College
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Thesis Chair: Dr. Shahram Ghasinejad, Ph.D.

Abstract

More college students are experiencing stress that negatively affects their psychological wellbeing. Many universities are reporting that more students are seeking mental health services related to stress (Miller, Elder, & Scavone, 2017). The intent of this thesis is to extend the previous research findings by specifically investigating the role of mindfulness on psychological well-being of college students. Participants were asked to complete a self-administered online survey consisting of the mindful attention awareness scale (MAAS) that measures the frequency of mindfulness state, the Psychological well-being scale (PWB) that measures six aspects of wellbeing and happiness, and the generalized self-efficacy scale (GSES). The survey included a section on demographic information such as gender, age, race/ethnicity, and family income. Data were analyzed using the Statistical Package for the Social Sciences (SPSS) and consisted of a series of correlational and multiple regression analyses. We found that mindfulness positively correlated with psychological well-being. Furthermore, we found the mindfulness and self-efficacy significantly predicted the level of psychological well-being. The findings of this study can inform college administrators in the development of more targeted intervention programs that may be utilized for the stability of students psychological wellbeing.

Keywords: Mindfulness, Psychological Well-Being, Self-Efficacy

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Introduction

There is an increase in the number of students who are attending universities. This raises concerns about resilience to stress and effective components of students' well-being (Galante et al., 2018). As a student, there are many stress related triggers that can negatively affect one's psychological well-being (Klainin-Yobas et al., 2016). It is suggested that there is a strong need to support students in their well-being because it is relevant to future economic benefits (Galante et al., 2018). One way to enhance psychological well-being is through the practice of mindfulness. Much of the literature on the topic indicates that in many traditions the quality of consciousness is believed to play a major role in the well-being of a person. According to Zoogman and colleagues (2014) mindfulness should be used as an intervention model to increase psychological well-being and to decrease psychopathology. A study that supports this notion was done among medical students that showed mindfulness programs reduced symptoms of stress, fatigue, anxiety, depression, and lowered psychopathology, while increasing empathy and vigor (Sampath et al., 2019). Similarly, in the research conducted by Klainin-Yobas and colleagues (2016), the finding revealed that internal resources (mindfulness and self-efficacy) were stronger predictors of psychological well-being than external resources (social support).

Providing essential tools to enhance internal resources is key to supporting and strengthening students' psychological well-being. The majority of the literature reviewed supports the notion that there is an association between mindfulness and psychological wellbeing. The current study intends to examine also the possible influences of socioeconomic background, ethnicity, gender, and diversity of a largely populated

university on this association, and how these additional variables might play a role on the increase or decrease in students' psychological well-being.

Past research suggests there is a growing number of students partaking in higher education including students from diverse backgrounds and differential family socio-economic standing. Studies have found that with this increase, there has also been a noticeable increase in students' need to access counseling (Klainin-Yobas et al., 2016; Miller, Elder, & Scavone, 2017). Students facing stress need to have good coping mechanisms and strategies that will allow them to experience an increase in their overall well-being. Building upon these findings, this correlational study will explore the role of mindfulness in psychological well-being amongst college students.

Mindfulness

It is agreed upon that there are variants of the term mindfulness. The majority of the literature reviewed supports the concept that mindfulness originated from Buddhist meditation, but it is not exclusive to the practice of Buddhism (Brown & Ryan, 2003; Kabat-Zinn, 2003). In fact, it is considered a universal and internal resource that all humans have access to, regardless of beliefs, philosophy, and ideologies (Kabat-Zinn, 2003). An interpretation by Zoogman and colleagues (2014) describes mindfulness as a moment-to-moment experience, with an open, non-judgmental, non-reactive awareness, involving three components: intention, attention, and attitude. Similarly, Marusak and colleagues (2017) suggest that mindfulness is a core characteristic that can be strengthened by continuously bringing attention to the present moment with openness and receptiveness. Furthermore, mindfulness can be practiced through different

activities such as breathing exercises, meditation, yoga, and through a multitude of similar programs and interventions. Incorporating such activities can lead to a calmer, less reactive physiological and psychological well-being (Monshat et al., 2013).

Similarly, Brown and Ryan (2003) found that mindfulness was related to vitality, optimism, positivity, autonomy, and self-efficacy. Brief mindfulness interventions were inversely related to psychopathology, depression, stress, and anxiety. More specifically, research findings amongst young adults linked higher mindfulness with lower anxiety (Murasak, 2018). However, fewer studies have focused on the role of mindfulness on psychological well-being of college students. Some of these interventions have been used in clinical and non-clinical settings and have had a broad positive effect on well-being (Marusak, 2018). Mindfulness interventions have been increasingly gaining attention as a way of dealing with stress and as a positive influence on psychological well-being of the general public. However, fewer studies have focused on the role of mindfulness on psychological well-being of college students.

Psychological Well-being

Psychological well-being originated as a way to describe positive functioning across a lifespan. A model created by Ryff and Keyes (1995) has now been extended to describe mental health and well-being. Inversely, psychopathology is a term that is used to describe mental illness. Psychological well-being is a term to describe different dimensions of an individual including autonomy, positive relationships with others, ability to resist social pressures, make the most of the surrounding opportunities, self-acceptance, and personal growth. Past studies have shown a positive link between psychological well-being and physical health.

One study suggests that having higher psychological well-being prevents health problems and increases life expectancy (Klainin-Yobas, 2016). Specifically, their results showed the elder participants who were identified as having higher psychological well-being were lower on cardiovascular risks, cortisol level, inflammatory responses, and high on their quality of sleep (Klainin-Yobas, 2016).

The majority of the literature reviewed suggests the need for additional exploration of factors associated with psychological well-being. Combined, these results suggest that mindfulness, regardless of how it is implemented and used, may be a key contributor to psychological well-being.

Self-Efficacy

Self-efficacy is described as believing that you can overcome obstacles; have the ability to accomplish and get things done (Chen et al., 2001). This belief in oneself generates strong coping abilities and adaptability while managing tasks with confidence, control, and effectiveness. More specifically, a student who has healthy coping mechanisms and uses more of a problem-focused coping effort, will face tasks without rumination, feelings of overwhelmed emotions, and will be less likely to view challenges as a threat. Self-efficacy contributes to a student's success and functioning and is associated with well-being (Klainin-Yobas et. al., 2016). The literature reviewed supports the notion that self-efficacy interacts with psychological well-being and may be a strong predictor of psychological well-being. Higher self-efficacy generates positive feelings and contributes to a student's level of mindfulness.

There is a need to explore self-efficacy and how it interacts with mindfulness to generate a deeper understanding of the well-being of a student.

Socioeconomic

Socioeconomic status is considered a social standing that often is measured by income, occupation, and education. The current study will focus on the subjective and perceived socioeconomic status that encompasses the student's family income and income satisfaction (American Psychological Association, 2020). College students from lower income have less access to reliable mental health facilities, programs, and information on college resources. These important resources benefit the student in education, social skills, physical well-being, and psychological well-being. As suggested by Klainin-Yobas and colleagues (2016), access to these services is beneficial to students' adjustment into life in college by nurturing the students' well-being and development. Growing evidence supports the link between low social economic status and negative psychological well-being. Higher socioeconomic status has been associated with less life struggles and higher level of life satisfaction and lower levels of depression.

Conversely, lower socioeconomic status has been associated with lower levels of psychological well-being (Fassbender and Leyendecker, 2018). Additionally, Reiss and colleagues (2019), suggests low socioeconomic status at a young age is associated with higher risk of mental health problems in adulthood. More college students are experiencing stress that negatively affects their psychological well-being. Many universities are reporting that more students are seeking mental health services related to stress (Miller, Elder, & Scavone, 2017).

The present study aims to extend the previous research findings by specifically examining the psychological dimensions of socioeconomic satisfaction of college students and its role in students' psychological well-being.

Current Study

Much research has been done in the past on mindfulness and psychological well-being. However, there has not been a significant amount of research conducted on mindfulness and psychological well-being among students of a diverse and largely populated public university. A few studies that examined this relationship among college students focused on participants of similar ethnicity and schooling programs. In one study, the participants of a small private university were predominantly Filipino, female, and shared similar socioeconomic status (Klainin-Yobas et al., 2016). Furthermore, past studies had focused on one group of students such as medical students who all had the same college standing (Sampath et al., 2019). The present study will build on previous research by extending these earlier findings. Specifically, this study focuses on exploring the association between mindfulness and the psychological well-being of the student body in a largely populated diverse university. Additionally, it will explore the possible role of self-efficacy and perceived socioeconomic status in the relationship between mindfulness and the psychological well-being of students. The following hypotheses are tested in this study:

- Hypothesis (1): mindfulness will have a positive correlation with psychological well-being.

- Hypothesis (2): perceived socioeconomic status will have a positive correlation with psychological wellbeing.
- Hypothesis (3): Self-efficacy will positively correlate with psychological well-being.
- Hypothesis (4): mindfulness, socioeconomic status, and self-efficacy together will significantly predict the level of psychological well-being.

Methods

Participants

The participants used in this correlational study included ($N = 413$) undergraduate students from the University of Central Florida. Of the original sample, 39 students were excluded from the study for missing data on the main study variables, resulting in 374 used in the analyses. The participants consisted of males ($n = 148, 39.6\%$) and females ($n = 226, 60.4\%$). All participants were at least 18 years of age ranging between the ages of 18-64, with the ages of 18-24 ($n = 326, 85.3\%$), between the ages of 25-34 ($n = 32, 8.4\%$), between the ages of 35-44. ($n = 10, 2.6\%$), and the rest ($n = 7, 1.8\%$) ranged between the ages of 45-64. Most of the participants identified as Caucasian ($n = 264, 69.3\%$). Other self-reported ethnicities included, Black or African American ($n = 29, 7.8\%$), Asian ($n = 29, 7.8\%$), and the rest reported their ethnicity as “other” ($n = 52, 15.1\%$). Self reported household income consisted of below \$20K ($n = 65, 17.1\%$), \$20K-\$40K ($n = 65, 17.1\%$), \$40K-\$60K ($n = 53, 13.9\%$), \$60K-\$80K ($n = 41, 10.8\%$), \$80K-or more ($n = 150, 39.4\%$), and 7 (1.8%) students were missing data for this question. Most of the students were psychology majors ($n = 137, 36.6\%$), with 319 (83.7%) of the participants seeking their degree on-campus, and 55 (14.4%) seeking their degree online only. Each person received credit for participation in this study. No identifying information was collected and therefore the survey remained anonymous.

Measures

Demographic Questionnaire. The survey included a demographic section with questions on: sex, age, ethnicity, whether the participant was an on-campus or online student affiliate, transfer student, how many classes the participant was taking online, and major.

The survey also asked participants for information regarding household income (ranging from \$0-\$80k+). It also included the question, "How satisfied are you in regards to your family income"?. This question answered with a 3-point scale ranging from (1) not satisfied, (2) neutral, and 3) satisfied.

The Mindful Attention Awareness Scale (MAAS). Mindfulness was measured using the individual's frequency of mindful states occurring within the present time (Brown & Ryan, 2003). Brown and Ryan (2003) report that the evidence supports this instrument in predicting multiple indicators of psychological well-being. MAAS contains 15 statements. The participant was asked to respond to each statement using a six-point scale ranging from (1) "almost always" to (6) "almost never". A sample statement is: "I find it difficult to stay focused on what's happening in the present." The MAAS is scored by computing the mean of the 15 items. Higher scores reflect higher levels of dispositional mindfulness. The Cronbach's alpha was 0.89, suggesting good internal consistency reliability, (Brown & Ryan, 2003).

Psychological Well-Being scale (PWB). The PWB was used in assessing numerous facets of Well-Being and happiness, including: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance (Ryff et al, 2007; adapted from Ryff, 1989). The PWB scale contains 18 statements. Participants were asked to respond to each statement using a seven-point Likert-type scale ranging from (1) “strongly agree” to (7) “strongly disagree”. A sample statement is “I like most parts of my personality”. Statements 1, 2, 8, 9, 11, 12, 13, 17 and 18 were reversed scored. The formula for reverse scoring an item is: (Number of scale points +1) - (Respondent’s answer). For example, if a participant respondent answered 3 on statement 1, it would be recoded as $(7+1)-3=5$. You would enter a 5 for this respondent’s answer to the first statement. Higher scores reflect higher levels of psychological well-being. The Cronbach’s alpha in this study was 0.85 suggesting acceptable reliability.

The New General Self-Efficacy Scale (GSES). The GSES was used to measure an individual's belief in coping efforts and one's abilities to adapt and manage tasks with confidence, control and effectiveness (Schwarzer & Jerusalem, 1995). This instrument was used to find correlations between self-efficacy, the measures of the PWB scale, and the MAAS. This psychometric scale contains 8 statements. The participants were asked to respond to each statement using a five-point Likert-type scale ranging from (1) “Strongly disagree” to (5) “Strongly agree”. A sample question is, “I can usually handle whatever comes my way”. The GSES is scored by taking the average rating of the 8 items.

Higher scores reflect greater confidence in the person's ability to manage tasks, coping and adaptation abilities. The Cronbach's alpha in this study was 0.88, suggesting good internal consistency reliability.

Procedure

The research design was a non-experimental, correlational study exploring relationships between mindfulness and psychological well-being as the two main variables. Participants were asked to partake in an online questionnaire that was administered through SONA Database. Data was collected by the use of online self-administered questionnaires through Qualtrics (an online software system). The participants were instructed through Qualtrics to answer, to the best of their ability and with accuracy, the self-administered questionnaire. First, they answered the demographic questions, and then they were asked to answer questions that measured mindfulness, psychological well-being and self-efficacy. Lastly, the participants were asked to answer a question about satisfaction with taking the survey. The survey took approximately 15 minutes to complete. The first page of the survey contained the information pertaining to the study and consent to partake in the survey. No identifying markers were obtained from the participants and therefore they will remain anonymous. This research was approved by the university institution review board (IRB).

Results

A total of 374 (students completed the online questionnaire. Descriptive statistics for all study variables are found in Appendix A, Table 1. Consistent with the existing literature, the results show that the MAAS scale, GSES, and perceived SES all correlate with psychological well-being

A series of analyses were conducted to explore demographic differences on psychological well-being. A t-test analysis was used to determine if there was a significant mean difference in psychological well-being between male and female individuals, using gender as the independent variable and psychological well-being as the dependent variable. Results revealed there was no significant difference on psychological well-being scores between males ($M = 90.78$, $SD = 14.47$) and females ($M = 91.39$, $SD = 15.60$), $t(372) = -.38$, $p = .708$.

To examine whether age groups differ with respect to psychological well-being, a one-way ANOVA was conducted, with age groups as the independent variable and the PWB score as the dependent variable. $F(4,369) = 2.96$, $p = .020$. The results suggest that age groups differ with respect to psychological well-being. A post hoc comparison using LSD test indicated that the mean scores for 35-44 age group ($M = 101.60$, $SD = 12.16$, $p = .021$) and 55-64 age group ($M = 108$, $SD = 2.00$, $p = .044$) were significantly different than the 18-24 age group ($M = 90.43$, $SD = 14.91$). However, the 25-34 age group ($M = 92.19$, $SD = 16.11$) and 45-54 ($M = 102.50$, $SD = 22.78$) did not significantly differ from the 18-24 age group.

To examine the role of ethnicity, a one-way ANOVA was conducted, with ethnicity as the independent variable and the PWB score as the dependent variable. These showed that ethnic groups differ on psychological well-being scores, $F(5, 368) = 3.91, p = .002$. A post hoc analysis using the LSD test indicated that the mean score for Asian ($M = 83, SD = 11.69, p < .001$) and individuals in “other” group ($M = 87, SD = 14.19, p < .007$) were significantly different than Caucasian ($M = 92.81, SD = 15.71$), at the $p < .05$ level. However, African American ($M = 93.10, SD = 10.38$), American Indian or Alaska Native ($M = 75.50, SD = 6.36$), and Native Hawaiian or Pacific Islander ($M = 88.00, SD = 7.07$) did not significantly differ from Caucasian PWB scores.

A series of bivariate correlational analyses were conducted to examine interrelationships among study variables. Correlational data for all composite variables can be found in Appendix A, Table 2. All of the psychological well-being subscales were found to be correlated with MAAS and GSES variables. However, an interesting pattern of results were found for the relationship between psychological well-being subscales and perceived socioeconomic status. While self-acceptance $r = .18, p < .001$, Environmental mastery $r = .14, p < .001$, positive relationship with others $r = .13, p < .05$, and autonomy $r = -.12, p < .05$ significantly correlated with perceived socioeconomic status, positive relationship with others $r = -.01$ and purpose in life $r = -.03$ did not significantly correlate with perceived socioeconomic status.

We also explored gender and age differences on mindfulness and self-efficacy. A t-test analysis was conducted to determine if there was a significant mean difference in mindfulness between male and female individuals, using gender as the independent variable and mindfulness as the dependent variable. Results revealed there was a significant difference on MAAS scores between males ($M = 3.78, SD = .07$) and females ($M = 3.79, SD = 1.07$), $t(372) = -.11, p = .02$.

To examine whether age groups differ with respect to mindfulness, a one-way ANOVA was conducted, with age groups as the independent variable and the MAAS score as the dependent variable. The results suggest that age groups differ with respect to MAAS, $F(4,369) = 2.05, p = .087$. A post hoc comparison using LSD test indicated that the mean MAAS scores for 18-24 age group ($M = 3.73, SD = 1.00, p = .05$) was significantly different than the 25-34 age group ($M = 4.09, SD = .82, p = .05$). The 35-44 age group ($M = 4.20, SD = 1.01, p = .142$), 45-54 age group ($M = 4.48, SD = .96, p = .132$) and 55-64 age group ($M = 4.16, SD = 1.01, p = .462$) did not reach a significant difference.

To determine if a significant mean difference exists between male and female individuals on self-efficacy, a t-test analysis was conducted, using gender as the independent variable and self-efficacy as the dependent variable. Results revealed there was not a significant difference on self-efficacy (GSES) scores between males ($M = 3.94, SD = .81$) and females ($M = 4.02, SD = .77$), $t(372) = -.98, p = .62$.

To examine whether age groups differ with respect to self-efficacy, a one-way ANOVA was conducted, with age groups as the independent variable and the GSES score as the dependent variable. The results suggest that age groups do not differ with respect to GSES and did not reach significance, $F(4,369) = .942, p = .440$

Hypothesis one stated that mindfulness would positively correlate with psychological well-being. To test this hypothesis, a Pearson correlation r coefficient was performed to examine interrelationship and significance among variables. Consistent with the hypothesis, it was found that mindfulness did positively correlate with psychological well-being, $r = .53, p < .001$. Results can be found in Appendix A, Table 2.

Hypothesis two stated that perceived socioeconomic status would correlate with psychological well-being. Hypothesis two was tested by a Pearson correlation r coefficient to determine the relationship and significance. The two variables, perceived socioeconomic status and psychological well-being did not show significance correlation, $r = .08, p = 0.15$. Results can be found in Appendix A, Table 2.

Hypothesis three stated that higher levels of self-efficacy would positively correlate with psychological well-being. Hypothesis three was also tested using a Pearson correlation r coefficient to determine relationship and significance. Consistent with the hypothesis, it was found that self-efficacy did moderately correlate with psychological well-being, $r = .50, p < .001$. Results can be found in Appendix A, Table 2.

The last hypothesis stated that mindfulness, self-efficacy, perceived socioeconomic status would significantly predict the level of psychological well-being. To test this hypothesis, a hierarchical multiple regression analysis was performed. Gender and age were entered in block one with psychological well-being as the criterion variable. This model accounted for a small variance in psychological well-being, $R^2 = .03$, $F((2,371) = 5.33$, $p < .005$. In block 2, mindfulness, perceived socioeconomic status, and self-efficacy were entered as predictor variables, and psychological well-being as the criterion variable. Consistent with the hypothesis, the results indicated that the predictor variables together significantly predicted psychological well-being, total $R^2 = .41$, $F(5,368) = 51.38$, $p < .001$. Results also showed that each of the predictor variables also individually achieved significance in predicting psychological well-being with MAAS, $\beta = .39$, $t = 8.9$, $p < .001$, GSES $\beta = .36$, $t = 8.39$, $p < .001$, and perceived socioeconomic status $\beta = .13$, $t = 3.14$, $p = .002$. Results can be found in Appendix A Table 4.

Discussion

This study examined the role of mindfulness, perceived socioeconomic status and self-efficacy on psychological well-being among undergraduate students from the University of Central Florida. Consistent with our hypotheses, mindfulness and self-efficacy correlated significantly with psychological well-being. However, perceived socioeconomic status did not significantly correlate with psychological well-being. Also consistent with our hypotheses, mindfulness, self-efficacy, and perceived socioeconomic status collectively were predictors of psychological well-being scores.

Participants with higher levels of mindfulness were more likely to report positive subjective psychological well-being as previous studies have found, (Klanin-Yobas, 2016). As previously stated, mindfulness is a universal and internal resource that we all have access to and can be used as a useful tool in managing stress. Mindfulness allows the student to be aware of feelings, thoughts and behaviors of themselves and others that are within their surroundings. Conversely, being unaware can lead to an “avoidance, repression, or poor coping skills which in turn adds to stress” (Sampath et al., 2019 p.53). Consciousness, a quality of mindfulness, is vital for the student’s ability to handle stress. Weinstein (2009) states that this allows the student to have a clear understanding of the current experience and to utilize coping mechanism and strategies while not using avoidance or ignoring the events.

Weinstein goes on to indicate that mindfulness is a protective factor against challenges functioning through two main mechanisms. First, mindfulness is a protective factor by the use of coping strategies such as approach coping (able to manage the undesirable stimuli) and less avoidant coping (and ignoring and escaping stimuli). Second, having the ability to evaluate and weigh the objectivity of a life event can significantly decrease the emotions to a threat and influence positive cognitive appraisal.

As a result, spending more time in the present moment, with awareness and less rumination could be an indicator of optimal levels of psychological wellbeing, (Brown and Ryan, 2003). In the current study, a student's mindful state was measured by the Mindfulness Attention Awareness Scale (MAAS). This scale is considered reliable and a valid instrument that measures a person's attention and awareness, with high levels of clarity and low levels of automatic, mindless behavior as suggested by Brown and colleagues (2003). In line with theoretical expectation, mindfulness positively correlated with psychological well-being. Further analysis examined how the psychological wellbeing subscales correlated with MAAS scores. An interesting finding was that environmental mastery, positive relationship with others and self-acceptance had the strongest moderate levels of correlation. Environmental mastery has been described as an ability to create personal suitable living situations and manage complex environments with confidence (Baumgardner and Carothers, 2009). This ability alongside self-acceptance and positive relationship with others builds a system that when faced with challenges,

a student that has the capability to spend more time in the present moment, will be better equipped to handle complexities within the situation.

This further demonstrates how mindfulness is a key component to a student's psychological well-being. Mindfulness is a skill that helps a student become less reactive to situations or events and has the potential to reduce symptoms of stress and anxiety.

Perceived socioeconomic status did not reach statistical significance to support the second hypothesis. However, an interesting finding was that when perceived socioeconomic status together with mindfulness and self-efficacy were tested as predictors of psychological well-being, perceived socioeconomic status reached significance as a predictor. For this study, perceived socioeconomic status was measured based on the student's satisfaction with their household income, without providing information on family size, housing arrangement, or employment status. In this study, students' income satisfaction was used rather than income level because it was uncertain if it pertained to students or parents' income and therefore felt the question could not be determined consistently. Future studies could build upon the research pertaining to these areas to further explore socioeconomic status (SES) and psychological well-being.

Additionally, there was no statistically significant relationship between ethnicity and psychological well-being. To the best of my knowledge, other studies were done in private university settings that did not have high diversity in ethnicities, income, education level or age.

Secondary analysis of gender showed no significant influence on the levels of psychological well-being.

In previous research, gender appeared to be linked to higher levels of psychological well-being among students in Iran, Korea and China but limited research was conducted on the predicting effects of these findings, (Klanin, 2016). This may warrant the need for future replication and exploration on interrelationships among variables and confounding variables.

In line with previous findings, self-efficacy positively correlated with psychological well-being. Self-efficacy was measured using the generalized self-efficacy scale (GSES). As stated by Klanin (2016), a person feels more confident and motivated because of the positive feelings that are associated with higher levels of self-efficacy. Self-efficacy is an internal resource that is beneficial when dealing with stressors and difficult tasks that require problem solving coping mechanisms. Klanin (2016) adds that exploration of the interaction of self-efficacy and other factors to promote well-being in university students is vital for the functioning and success of a student. According to Miller and colleagues (2016), universities are concerned with undergraduates increase levels of stress among college students and the limiting abilities to cope and manage stress. Studies are paying particularly close attention to influences of parental figures, reduced level of engagement in academics, and poor preparation.

Limitations and Future Research

A methodological limitation of the study was that it was conducted at only one largely populated university located in a major city, and therefore the findings may not be generalizable to less populated universities in small towns.

Future work to be done in other major cities or towns with less populated universities within the United States. Future work could be done on causal relationships among the variables. It is also noteworthy to state that some of the possible limitations to the study may be due to the timing of the data being collected. It occurred during the COVID-19 pandemic and it is possible that the data was influenced by these circumstances. The pandemic may have influenced the students income and psychological well-being causing distress and uncertainty. In a time of uncertainty, mindfulness may become difficult. Relevance of the context of psychological well-being is vital in future research more now than ever. Despite the limitations, the current study extended the findings of previous studies of the role of mindfulness on psychological well-being by focusing specifically on college students and also by examining the role of the additional variables of perceived socioeconomic status.

These findings indicate that supporting students through interventions aimed at enhancing internal resources (such as mindfulness and self-efficacy) might be vital to the students' ability to cope with stressors. This appears to be consistent with the work of Klanin-Yobas (2015) amongst other studies and seems worthy of future exploration.

Additionally, social support (supports from family, friends, and significant others) should be explored on the effects of psychological well-being. Previous research suggested that external resources (social support) were strong predictors of positive psychological well-being. Taken together, exploring both internal and external resources of support on psychological well-being might be advised for future research.

As previously stated, the need to support students in their well-being is relevant to future economic benefits (Galante et al., 2018). Galante and colleagues (2018) suggest that students who have higher well-being can increase their resilience to stress, which in turn can benefit them in their future interactions in the workplace and or in family settings. These elements of empowerment, self-efficacy, and natural skill set could follow students through life's challenges and help to lower their risk of developing anxiety and depression. Mindfulness interventions may also be used as an effective and preventive measure to benefit students and faculty. Mindfulness interventions have been increasingly gaining attention as ways of dealing with stress and as a positive influence on psychological well-being in the general public. Additionally, mindfulness programs have been considered helpful to an individual by making them less reactive to events and their thoughts and feelings (Kingery et al., 2019). Another study suggested that higher spirituality might be a strong factor that influences levels of psychological well-being (Klanin, 2016). Future studies could build upon these findings in regard to this sociocultural factor and the socioeconomic factor in order to elevate the understanding of the possible interaction of these factors on psychological well-being.

Conclusion

The current study contributed to the literature concerning mindfulness and psychological well-being. The reported interrelationships among the variables tested can be built upon in future research. Based on our findings, it might be worthwhile to consider mindfulness interventions as a potential enhancement to the student's psychological well-being. Mindfulness practices such as Mindfulness-Based Stress Reduction (MBSR) and Mindfulness-Based Cognitive therapy (MBCT) are achievable 8 week-long programs that have been beneficial for a variety of mental health and physical health outcomes (Zoogman, 2015). Furthermore, research is needed to test such interventional programs for long term and short term benefits on psychological well-being as suggested by Klanin-Yoba, 2015; Miller et al., 2017.

APPENDIX A: Tables and Figures

Table 1. Descriptive Statistics and Cronbach's Alphas

Variables	Number of Items	Range	M	SD	α
PWB	18	18-126	91.15	15.15	.85
Subscales:					
Autonomy	3	3-21	14.93	3.15	.82
Environ.Mas.	3	3-21	14.08	3.58	.79
Personal Growth	3	3-21	17.10	3.32	.78
Pos. Rel. W/Others	3	3-21	14.52	3.61	.80
Purpose in Life	3	3-21	15.46	3.18	.81
Self-Acceptance	3	3-21	15.06	3.87	.77
MAAS	15	15-90	3.79	.99	.93
GSES	8	8-40	3.98	.73	.77
SES Satisfaction	1	1-3	2.29	.76	

Table 2. Correlations Among Study Variables

Measures	1	2	3	4
1. Psychological Well-Being	-			
2. Mindfulness	.53**	-		
3. Self-Efficacy	.50**	.36**	-	
4. Perceived Socioeconomics satisfaction	.08	.00	-.11*	-

**Correlation is significant at the $p < .001$ level (two-tailed)

*Correlation is significant at the $p < .05$ level (two-tailed)

Table 3. Correlations Among Subscales

Measures	1	2	3	4	5	6	7	8	9
1.PWB: Autonomy	-								
2.PWB: Environmental Mastery	.34**	-							
3.PWB: Personal Growth	.47**	.44**	-						
4.PWB: positive relationship with others	.30**	.45**	.45**	-					
5.PWB: Purpose in Life	.37**	.35**	.52**	.38**	-				
6.PWB: Self-Acceptance	.39**	.64**	.53**	.51**	.44**	-			
7.MAAS	.25**	.52**	.33**	.47**	.28**	.44**	-		
8.GSES	.30**	.36**	.44**	.27**	.37**	.44**	.36**	-	
9.SES Satisfaction	-.12*	.14**	-.01	.13*	-.03	.18**	.00	-.11*	-

** Correlation is significant at the $p < .001$ level (two-tailed)

*Correlation is significant at the $p < 0.05$ level (two-tailed)

Table 4

Hierarchical Multiple Regression Analysis Predicting Psychological Well-Being

Variable	ΔR^2	R^2	Adjusted R^2	B	$SE B$	β	t
Step 1	.03*	.03	.02				
Gender				-.00	1.59	.00	-.01
Age				4.13	1.27	.17	3.25**
Step 2	.38**	.41	.40				
Mindfulness				5.87	.66	.39	8.90**
General Self-Efficacy				6.70	.83	.36	8.39**
Perceived SES				2.59	.83	.13	3.14*

* $p < .01$ ** $p < .001$

Appendix B: Survey Instruments

Demographic Survey

1).What is your sex?

- A. Male
- B. Female

2).What is your age ?

3).What is your ethnicity?

- A. White/Caucasian
- B. Black or African American
- C. Hispanic
- D. Asian
- E. Other

4).What is your current year in college?

- A. Freshman
- B. Sophomore
- C. Junior
- D. Senior

5).I am taking classes:

- A. Online
- B. On-campus
- C. Both

6).I am a...

- A. Not a transfer student
- B. A transfer student from a 2- year college
- C. A transfer student from a 4- year college

7).How many classes are you currently taking online?

- A. 0 classes
- B. 1-2 classes
- C. 3-4 classes
- D. 4 or more classes

8). What is your major?

9). What is your household income?

- A. \$0-\$20K
- B. \$20K-\$40K
- C. \$40K-\$60K
- D. \$60K-\$80K
- E. \$80K+

10).How satisfied are you with your household income?

- A. Satisfied
- B. Neutral
- C. Not satisfied

Psychological Well-Being Survey

PWB Scale

Q1). "I like most parts of my personality."

1. Strongly agree
2. Somewhat agree
3. A little agree
4. Neither agree nor disagree
5. A little disagree
6. Somewhat disagree
7. Strongly disagree

Q2). "When I look at the story of my life, I am pleased with how things have turned out so far."

1. Strongly agree
2. Somewhat agree
3. A little agree
4. Neither agree nor disagree
5. A little disagree
6. Somewhat disagree
7. Strongly disagree

Q3). "Some people wander aimlessly through life, but I am not one of them."

1. Strongly agree
2. Somewhat agree
3. A little agree
4. Neither agree nor disagree
5. A little disagree
6. Somewhat disagree
7. Strongly disagree

Q4). "The demands of everyday life often get me down."

1. Strongly agree
2. Somewhat agree
3. Neither agree nor disagree
4. A little disagree
5. Somewhat disagree
6. Strongly disagree

Q5). "In many ways I feel disappointed about my achievements in life."

1. Strongly agree
2. Somewhat agree
3. A little agree
4. Neither agree nor disagree
5. A little disagree
6. Somewhat disagree
7. Strongly disagree

Q6). "Maintaining close relationships has been difficult and frustrating for me."

1. Strongly agree
2. Somewhat agree
3. A little agree
4. Neither agree nor disagree
5. A little disagree
6. Somewhat disagree
7. Strongly disagree

Q7). "I live life one day at a time and don't really think about the future."

1. Strongly agree
2. Somewhat agree
3. A little agree
4. Neither agree nor disagree
5. A little disagree
6. Somewhat disagree
7. Strongly disagree

Q8). "In general, I feel I am in charge of the situation in which I live."

1. Strongly agree
2. Somewhat agree
3. A little agree
4. Neither agree nor disagree
5. A little disagree
6. Somewhat disagree
7. Strongly disagree

Q9). "I am good at managing the responsibilities of daily life."

1. Strongly agree
2. Somewhat agree
3. A little agree
4. Neither agree nor disagree
5. A little disagree
6. Somewhat disagree
7. Strongly disagree

Q10). "I sometimes feel as if I've done all there is to do in life."

1. Strongly agree
2. Somewhat agree
3. A little agree
4. Neither agree nor disagree
5. A little disagree
6. Somewhat disagree
7. Strongly disagree

Q11). "For me, life has been a continuous process of learning, changing, and growth."

1. Strongly agree
2. Somewhat agree
3. A little agree
4. Neither agree nor disagree
5. A little disagree
6. Somewhat disagree
7. Strongly disagree

Q12). "I think it is important to have new experiences that challenge how I think about myself and the world."

1. Strongly agree
2. Somewhat agree
3. A little agree
4. Neither agree nor disagree
5. A little disagree
6. Somewhat disagree
7. Strongly disagree

Q13). "People would describe me as a giving person, willing to share my time with others."

1. Strongly agree
2. Somewhat agree
3. A little agree
4. Neither agree nor disagree
5. A little disagree
6. Somewhat disagree
7. Strongly disagree

Q14). "I gave up trying to make big improvements or changes in my life a long time ago"

1. Strongly agree
2. Somewhat agree
3. A little agree
4. Neither agree nor disagree
5. A little disagree
6. Somewhat disagree
7. Strongly disagree

Q15). "I tend to be influenced by people with strong opinions"

1. Strongly agree
2. Somewhat agree
3. A little agree
4. Neither agree nor disagree
5. A little disagree
6. Somewhat disagree
7. Strongly disagree

Q16). "I have not experienced many warm and trusting relationships with others."

1. Strongly agree
2. Somewhat agree
3. A little agree
4. Neither agree nor disagree
5. A little disagree
6. Somewhat disagree
7. Strongly disagree

Q17). "I have confidence in my own opinions, even if they are different from the way most other people think."

1. Strongly agree
2. Somewhat agree
3. A little agree
4. Neither agree nor disagree
5. A little disagree
6. Somewhat disagree
7. Strongly disagree

Q18). "I judge myself by what I think is important, not by the values of what others think is important."

1. Strongly agree
2. Somewhat agree
3. A little agree
4. Neither agree nor disagree
5. A little disagree
6. Somewhat disagree
7. Strongly disagree

Mindfulness Survey

MAAS Scale

Q1). I could be experiencing some emotion, and not be conscious of it until sometime later.

1. Almost Always
2. Very Frequently
3. Somewhat Frequently
4. Somewhat Infrequently
5. Very Infrequently
6. Almost Never

Q2). I break or spill things because of carelessness, not paying attention, or thinking of something else.

1. Almost Always
2. Very Frequently
3. Somewhat Frequently
4. Somewhat Infrequently
5. Very Infrequently
6. Almost Never

Q3). I find it difficult to stay focused on what's happening in the present.

1. Almost Always
2. Very Frequently
3. Somewhat Frequently
4. Somewhat Infrequently
5. Very Infrequently
6. Almost Never

Q4). I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.

1. Almost Always
2. Very Frequently
3. Somewhat Frequently
4. Somewhat Infrequently
5. Very Infrequently
6. Almost Never

Q5). I tend not to notice feelings of physical tension or discomfort until they really grab my attention.

1. Almost Always
2. Very Frequently
3. Somewhat Frequently
4. Somewhat Infrequently
5. Very Infrequently
6. Almost Never

Q6). I forget a person's name almost as soon as I've been told it for the first time.

1. Almost Always
2. Very Frequently
3. Somewhat Frequently
4. Somewhat Infrequently
5. Very Infrequently
6. Almost Never

Q7). It seems I am "running on automatic," without much awareness of what I'm doing.

1. Almost Always
2. Very Frequently
3. Somewhat Frequently
4. Somewhat Infrequently
5. Very Infrequently
6. Almost Never

Q8). I rush through activities without being really attentive to them.

1. Almost Always
2. Very Frequently
3. Somewhat Frequently
4. Somewhat Infrequently
5. Very Infrequently
6. Almost Never

Q9). I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.

1. Almost Always
2. Very Frequently
3. Somewhat Frequently
4. Somewhat Infrequently
5. Very Infrequently
6. Almost Never

Q10). I do jobs or tasks automatically, without being aware of what I'm doing.

1. Almost Always
2. Very Frequently
3. Somewhat Frequently
4. Somewhat Infrequently
5. Very Infrequently
6. Almost Never

Q11). I find myself listening to someone with one ear, doing something else at the same time.

1. Almost Always
2. Very Frequently
3. Somewhat Frequently
4. Somewhat Infrequently
5. Very Infrequently
6. Almost Never

Q12). I drive places on "automatic pilot" and then wonder why I went there.

1. Almost Always
2. Very Frequently
3. Somewhat Frequently
4. Somewhat Infrequently
5. Very Infrequently
6. Almost Never

Q13). I find myself preoccupied with the future or the past.

1. Almost Always
2. Very Frequently
3. Somewhat Frequently
4. Somewhat Infrequently
5. Very Infrequently
6. Almost Never

Q14). I find myself doing things without paying attention.

1. Almost Always
2. Very Frequently
3. Somewhat Frequently
4. Somewhat Infrequently
5. Very Infrequently
6. Almost Never

Q15). I snack without being aware that I'm eating.

1. Almost Always
2. Very Frequently
3. Somewhat Frequently
4. Somewhat Infrequently
5. Very Infrequently
6. Almost Never

Self-Efficacy Survey

GSES Scale

Q1). I will be able to achieve most of the goals that I set for myself.

1. Strongly disagree
2. Disagree
3. Neither Agree nor Disagree
4. Agree
5. Strongly Agree

Q2). When facing difficult tasks, I am certain that I will accomplish them.

1. Strongly disagree
2. Disagree
3. Neither Agree nor Disagree
4. Agree
5. Strongly Agree

Q3). In general, I think that I can obtain outcomes that are important to me.

1. Strongly disagree
2. Disagree
3. Neither Agree nor Disagree
4. Agree
5. Strongly Agree

Q4). I believe I can succeed at most any endeavor to which I set my mind.

1. Strongly disagree
2. Disagree
3. Neither Agree nor Disagree
4. Agree
5. Strongly Agree

Q5). I will be able to successfully overcome many challenges.

1. Strongly disagree
2. Disagree
3. Neither Agree nor Disagree
4. Agree
5. Strongly Agree

Q6). I am confident that I can perform effectively on many different tasks.

1. Strongly disagree
2. Disagree
3. Neither Agree nor Disagree
4. Agree
5. Strongly Agree

Q7). Compared to other people, I can do most tasks very well.

1. Strongly disagree
2. Disagree
3. Neither Agree nor Disagree
4. Agree
5. Strongly Agree

Q8). Even when things are tough, I can perform quite well.

1. Strongly disagree
2. Disagree
3. Neither Agree nor Disagree
4. Agree
5. Strongly Agree

How satisfied are you with taking this survey?

1. Satisfied
2. Somewhat Satisfied
3. Neither Satisfied nor not satisfied
4. Somewhat Not Satisfied
5. Not Satisfied

Appendix C: IRB Approval and Letter of Consent



UNIVERSITY OF CENTRAL FLORIDA

Institutional Review Board

FWA00000351
IRB00001138
Office of Research
12201 Research Parkway
Orlando, FL 32826-3246

EXEMPTION DETERMINATION

January 24, 2020

Dear Shahram Ghiasinejad:

On 1/24/2020, the IRB determined the following submission to be human subjects research that is exempt from regulation:

Type of Review:	Initial Study, Exempt Category
Title:	Exploring the Role of Mindfulness on Psychological Well-being among college students
Investigator:	Shahram Ghiasinejad
IRB ID:	STUDY00001368
Funding:	None
Grant ID:	None

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request so that IRB records will be accurate.

If you have any questions, please contact the UCF IRB at 407-823-2901 or irb@ucf.edu. Please include your project title and IRB number in all correspondence with this office.

Sincerely,

Kamille Birkbeck
Designated Reviewer

Letter of Consent

EXPLANATION OF RESEARCH

Title of Project: Exploring the role of mindfulness on Psychological well-being among college students

Principal Investigator: Dr. Ghiasinejad

Co-Investigators: Nikole Elderkin

Faculty Supervisor: Dr. Ghiasinejad

You are being invited to take part in a research study. Whether you take part is up to you.

The purpose of this study is to explore how mindfulness plays a role on the psychological well-being of the college students. You will be asked to answer questions relating to psychological well-being, measure the frequency of mindfulness state, and general self-efficacy as well as demographic questions.

The expected duration to complete the survey should be no more than 15 minutes.

Your participation in this study is voluntary. You are free to withdraw your consent and discontinue participation in this study at any time without prejudice or penalty. Your decision to participate or not participate in this study will in no way affect your relationship with UCF, including continued enrollment, grades, employment or your relationship with the individuals who may have an interest in this study.

You must be 18 years of age or older to take part in this research study.

Study contact for questions about the study or to report a problem: If you have questions, concerns, or complaints: Nikole Elderkin Student, College of Sciences, (407) 590-6283 or email [HYPERLINK "mailto:nikoleeld@knights.ucf.edu" nikoleeld@knights.ucf.edu](mailto:nikoleeld@knights.ucf.edu), Dr. Ghiasinejad, Faculty Supervisor, at (407)708-2826 or by email at Shahram.ghiasinejad@ucf.edu

IRB contact about your rights in this study or to report a complaint: If you have questions about your rights as a research participant, or have concerns about the conduct of this study, please contact Institutional Review Board (IRB), University of Central Florida, Office of Research, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901, or email irb@ucf.edu.

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