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Ava Pappas

University of Illinois, Urbana-Champaign, avapappasx@gmail.com

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Cover Page Footnote

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The Benefits of Meditation for Reducing Perceived Anxiety in College Students

Ava Pappas

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University of Illinois at Urbana-Champaign

Abstract

Anxiety is the most prevalent mental health issue in college students, affecting the mental, emotional, and physical aspects of daily life. There is a rising demand for mental health services, which has caused conventional treatments like therapy and medication to be spread thin. Complementary and alternative approaches have gained traction due to being cost-effective and easy. This literature review examines the effects of meditation on anxiety levels in college students based on findings from peer-reviewed studies. Evidence from multiple intervention studies exhibit notable reductions in perceived anxiety among college students who practice meditation of various forms. Furthermore, meditation benefits additional facets of well-being, like enhancing emotional regulation, mindfulness, and overall mental health. Despite certain limitations, such as reliance on self-reported data and insufficient long-term follow-ups, the results are consistent in highlighting the viable benefits of meditation. The findings postulate meditation as a tool for reducing anxiety and enhancing well-being in the college population. Further investigation should research long-term effects and the realistic integration of meditation into college student initiatives.

Keywords: Meditation, Anxiety, College Students, Mindfulness, Emotional Regulation

The Benefits of Meditation for Reducing Perceived Anxiety in College Students

Introduction

In the modern world, anxiety has become a prevailing problem affecting millions of individuals, and at the forefront of this issue are college students. The prevalence of anxiety among university students is notoriously high, with studies showing that nearly one-third of first-year college students - 31.4% - experience notable anxiety or related mental health issues within a 12-month period (Auerbach et al., 2018). Anxiety is defined as a future-oriented emotion manifesting as thoughts and feelings of worry. Anxiety can also present physically as increased blood pressure, muscle tension, chronic fatigue, and difficulty concentrating (American Psychological Association, 2022). These emotional, mental, and physical responses inevitably complicate the already demanding pressures of being a college student.

The collateral impact of anxiety is consistently backed by data. Research shows that college students with anxiety are consequently troubled by impaired memory, study habits, physical health, and poor coping strategies (Beddoe & Murphy, 2004; Kang et al., 2009, as cited in Bamber & Morpeth, 2019). Despite anxiety being the most commonly diagnosed *and* treated mental health condition on college campuses, prevention measures have been insufficient, with reports of anxiety nearly doubling in the last 15 years (Bamber & Morpeth, 2019). This indicates that traditional approaches to anxiety treatment have not yielded satisfactory outcomes.

While established treatments like medication and therapy are routine, alternative approaches like meditation have garnered rising popularity for being less invasive and more cost-effective. Not only that, but students' need for mental health services far exceeds the resources of campus counseling centers, resulting in many students being left untreated (Auerbach et al., 2018). The combination of these factors has led to an increased interest in meditation and other complementary and alternative medicines (CAMs). CAM interventions

have attracted a considerable amount of participants, with nearly 82% of Ivy League college students engaging in at least one form of CAM throughout the past 12 months. The reported reasons for adopting these therapies were to achieve a state of enhanced relaxation, decreased anxiety, and additional related mental health improvement (Versnik Nowak et al., 2015). This reveals that the students themselves are aware of the anxiety epidemic, and are thus taking their well-being into their own hands. Not only that, but this widespread adoption also displays the realistic integration of CAM interventions into the busy lives of college students. CAM therapies offer unique flexibility and accessibility which contrasts the commitment to a rigid medication or therapy schedule.

This notable attraction to CAM interventions, particularly meditation, can be accredited to the tangibly beneficial outcomes that students experience regarding anxiety and overall mental well-being. Research increasingly supports the effectiveness of these non-invasive approaches. Meditation in particular has shown outstanding results. For example, an in-depth systematic review discovered that mindfulness meditation reduced college students' anxiety with an effect size of 0.56, a highly significant margin compared to non-intervention groups (Bamber & Morpeth, 2019). This highlights the potency of meditation and its ability to effectively cater to the mental health needs of university students.

The copious research endeavors on anxiety show not just the efficiency of meditation, but also its versatility. A common type of meditation, called mindfulness meditation, specifically promotes emotional regulation along with orientation and awareness (Bamber & Morpeth, 2019). The strategy behind this specific meditation stems from mindfulness-based interventions (MBIs), which require the individual to be an impartial observer of their thoughts as they come and go, and to recenter their focus on the present moment. Mindfulness practices work to reduce feelings

of anxiety by eliminating one's personal identification with one's thoughts and combating future-oriented thinking. The benefits of mindfulness meditation are dramatic. These practices can extend beyond internal resolve by counteracting the physical manifestations of anxiety. This includes reducing cortisol levels to calm the nervous system and increasing cortical thickness, which leads to enhanced focus and attention. These findings were concluded from a neuroscience review conducted by Tang et al. (2015).

With meditation becoming an increasingly mainstream clinical intervention for anxiety and related mental health disorders, there is a growing body of research to support its benefits. However, the ever-increasing prevalence of anxiety in the college student population reflects a lack of awareness in this demographic regarding the beneficial implications of meditation. Therefore, this literature review aims to answer the question: In college students, what is the effect of practicing meditation on anxiety levels compared with not meditating?

Methods

The author completed an in-depth search of strictly peer-reviewed articles on September 9th, 2024 via the use of the databases PubMed and Google Scholar. Keywords used to define the search included "college students," "university," "meditation," "anxiety," and "mental disorder." Articles that utilized specific forms of meditation, such as mindfulness meditation, met the inclusion criteria. Articles excluded from the search were those published prior to 2009 and after September 9th, 2024. Additional exclusion criteria were predominantly international articles, and articles that were not specific to the population of college students. The type of articles selected displayed variation - among them were 2 epidemiological studies, 3 systematic reviews, and 5 intervention studies. Upon retrieval of search results, the author examined the abstract of each article to ensure the applicability of the information regarding the effect of meditation on anxiety.

Once the author selected the most pertinent articles, a full-text analysis was conducted to assess the relative impact of the findings.

Results

The results of this search returned five intervention studies investigating the effect of meditation on anxiety levels in college-aged students. These articles varied in study design but showed consistency regarding anxiety reduction among this population.

Crowley, Kapitula, and Munk (2022) conducted a semester-long study that compared an experimental group enrolled in a college meditation course with a control group via the usage of pre and post-intervention assessments. The experimental group consisted of students who self-enrolled in the course, which met twice a week for 75 minutes and included two to three meditations per class. The comparison group were students of the same university who self-selected enrollment in a course about the psychosocial aspects of physical activity and sport. The two research questions aimed to answer how meditation impacted mindfulness, happiness, and anxiety within the meditation group, and how these outcomes compared to the control group. They measured these variables before and after the intervention using three self-report questionnaires: Mindfulness Attention Awareness Scale (MAAS), the State Trait Anxiety Inventory (STAI), and the Subjective Happiness Scale (SHS). The results showed that, by the end of the semester, the students in the meditation group experienced notable increases in mindfulness and happiness, as well as a significant decrease in anxiety when compared to the control group. The authors concluded that the findings of this study supply evidence to show a positive association between a meditation course and feelings of enhanced well-being.

Falsafi (2016) conducted a study with the purpose of comparing a mindfulness meditation group, a yoga group, and a non-interventional group to assess depression and/or anxiety

outcomes. The 90 participants were college students who had a confirmed diagnosis of depression, anxiety, or both. Groups were randomly assigned. Intervention groups participated in 8 weeks of mindfulness or yoga, 75 minutes per week. The mindfulness group engaged in guided meditations, the yoga group received yoga training, and the control group had no intervention. Anxiety and depression symptoms, stress levels, mindfulness, and self-compassion were measured using five self-report questionnaires at baseline, week 4, week 8, and week 12. The results displayed that symptoms of depression, anxiety, and stress in the mindfulness group significantly decreased when compared to the control group. The yoga group displayed similar results, however, only the mindfulness group showed a notable increase in self-compassion and mindfulness.

Lemay, Hoolahan, and Buchanan (2019) assessed the effects of a six-week meditation and yoga intervention on the perceived stress, anxiety, and mindfulness of college students. The study consisted of 20 participants taking a weekly class which included 60 minutes of yoga and 30 minutes of guided meditation. The intervention was deliberately held in the weeks preceding final examinations, as this is typically a time of heightened emotions. The students completed three self-report questionnaires before and after the intervention to assess stress levels, anxiety levels, and mindfulness skills. The questionnaires used were the Beck Anxiety Inventory (BAI), the Perceived Stress Scale (PSS), and the Five Facet Mindfulness Questionnaire (FFMQ). Each individual operated as their own control by using baseline comparisons. By the end of the study, no participant reported feelings of high stress or anxiety, despite the post-intervention questionnaire being held during the week of final examinations.

Lothes, Matney, and Naseer (2022) conducted a study that compared the effects of music meditation and traditional mindfulness meditation on college student's test anxiety, mindfulness

levels, and overall anxiety. This intervention spanned five weeks and consisted of 31 college students randomly split into a music meditation group, a sitting traditional meditation group, and a control group. The students independently practiced their intervention six to seven days a week, while using a distance learning platform and being monitored for completion. The results were measured at 0 weeks, 5 weeks, and also at 10 weeks long after the intervention concluded. The outcomes were measured using a self-report demographic questionnaire, the Test Anxiety Inventory (TAI), the STAI, and the Five Facets of Mindfulness Questionnaire Short Form (FFMQ-SF). The results of this study showed that both music and mindfulness meditation significantly decreased reported levels of test anxiety and overall anxiety. Both groups also displayed increased mindfulness skills, with the music meditation indicating a stronger association. The authors suggest that these interventions could play a role in enhancing academic and daily performance in college students.

Menezes and Bizarro (2015) led a study that investigated healthy college students' participation in a six-week meditation intervention. The purpose of this study was to assess the intervention's impact on emotional regulation processes and outcomes, which include state and trait anxiety. The university students had no history of mental illness and were separated into a focused meditation group, a progressive relaxation group, and a control group. The focused meditation group practiced mindfulness meditations, while the progressive relaxation group engaged in a specific activity where muscle groups were strategically tensed and relaxed. Emotional regulation and anxiety were measured before and after using the Difficulties in Emotion Regulation Scale (DERS) and the STAI. The results showed that focused meditation outperformed the other two groups. The focused meditation group yielded a significant decrease in emotional dysregulation as well as trait anxiety. Also, emotional regulation strategies

improved, such as impulse control and emotional clarity. The study also noted that a greater frequency of focused meditation practice correlated with increasingly improved trait anxiety and emotional regulation strategies.

The results of the mentioned studies are consistent in providing evidence that meditation is significant in reducing anxiety across various settings and circumstances. The studies emphasize the benefits of meditation for overall well-being beyond the absence of anxiety, displaying its larger applicability for the college student population.

Discussion

The compilation of studies included in this review provides strong evidence supporting the notion that meditation effectively reduces anxiety levels in college students. The studies utilized diverse forms of meditation - mindfulness, music, guided, mobile, group, and more - and the self-reported outcomes consistently yielded significant reductions in anxiety compared to the control. In addition, the studies held interventions of varying frequencies, durations, and participant traits. The effects were consistent despite these variations, including among participants with and without an anxiety diagnosis. Several studies also noted improvement in other facets of well-being in addition to anxiety, like mindfulness and emotional regulation skills.

There are limitations that must be noted. First, the intervention studies mentioned solely utilize self-report questionnaires. These tools are valuable in offering findings related to perceived anxiety levels, however, they can include bias and placebo. Gathering objective biological evidence would solidify the results, but obtaining a universally accepted method for physiologically testing anxiety proves challenging. Another limitation is the lack of research regarding the long-term effects. While some studies provided follow-up questionnaires shortly

after the intervention concluded, there was no longitudinal monitoring to display the lasting duration of the benefits. Further research into the maintenance of practice and frequency of practice should be examined to assess the depth and permanency of the effects. Furthermore, with the population of interest being college students, several studies conducted the intervention in the form of a credit-based course. This indicates a limited sample size, due to registration limits on university-regulated courses. Also, the course instructor is commonly a member of the research team. This introduces the potential for exaggerated or falsified self-reports, considering the instructor has control over the student's grades. These potential confounders warrant the need for further research on the potential interchangeable variables.

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