



# Enhancing College Students' Mental Health Literacy and Self-Efficacy Through Co-curricular Mental Health First Aid Training: A Pilot Study

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## Abstract

Mental health challenges among college students are increasingly prevalent, yet many students face barriers to accessing professional support. Mental Health First Aid (MHFA) is an evidence-based training program designed to equip individuals with the skills to recognize, respond to, and refer peers experiencing mental health or substance use challenges. While MHFA has demonstrated effectiveness in various populations, limited research exists on its impact among students outside health-related disciplines. This pilot study addresses that gap by conducting an evaluation of MHFA training outcomes among undergraduate students at a mid-South public land-grant university. Thirty-five students completed a hybrid MHFA training, which included online pre-work and in-person instruction. Pre- and post-training surveys assessed changes in self-efficacy using a 10-item Likert scale and post-training MHFA knowledge using a 4-item scale. Data were analyzed using frequency and paired *t*-test analyses. Results showed statistically significant improvements in self-efficacy for 7 of the 10 items, with the greatest gains in students' comfort asking directly about suicidal ideation. Students also reported high levels of MHFA knowledge across all domains, including the ALGEE action plan, coping strategies, and recognition of signs and symptoms. These findings suggest that MHFA training effectively enhances students' confidence and mental health literacy, even among those outside health-related fields. The study supports integrating MHFA into academic curricula and co-curricular programming to promote early intervention and peer-led support. Future research should explore long-term behavioral outcomes, diverse student populations, and institutional-level impacts of MHFA training.

**Keywords:** Mental Health First Aid Knowledge, Self-Efficacy, College Students, Peer Support, Higher Education

## 1. INTRODUCTION

Mental health challenges among college students have become increasingly prevalent, with recent data indicating that over 45% of students report struggling with mental health issues, including anxiety, depression, and substance use disorders.[1] These challenges can significantly impact academic performance, retention, and overall well-being. Despite the availability of campus counseling services, many students face barriers to accessing professional help, such as stigma, lack of awareness, and logistical difficulties.[2-4]

Mental Health First Aid (MHFA) is an evidence-based training program developed by the National Council for Mental Wellbeing to address these gaps. MHFA teaches individuals how to recognize signs of mental health and substance use challenges, engage in supportive conversations, and refer peers to appropriate resources. Central to the training is the ALGEE action plan—Assess, Listen, Give reassurance, Encourage professional help, and Encourage self-help strategies—that provides a structured approach to early intervention.[5]

Research has shown that MHFA training improves mental health literacy, reduces stigma, and increases self-efficacy in providing support.[6-8] However, much of the existing literature focuses on students in health-related fields, leaving a gap in understanding the impact of MHFA on students from other

disciplines. The current pilot study was conducted at a mid-South public land-grant university and aimed to investigate two primary objectives: (1) to examine changes in self-efficacy among college students following MHFA training, and (2) to assess their level of MHFA-related knowledge after completing the training. By evaluating these outcomes in an undergraduate student population, this study contributes to the growing body of literature on mental health literacy and peer support in higher education and offers insights into the practical implementation of MHFA within academic settings.

## **2. MATERIALS AND METHODS**

Before beginning the study, the authors of the current pilot study were trained to teach the adult version of MHFA. This training involved becoming certified in MHFA prior to the intensive, three-day instructor training. Although both instructors were seasoned college classroom educators, a trial session of MHFA was taught to a group of university staff. The trial training that was held on campus in a single session during a workday underscored the importance of selecting an appropriate training site (quiet, somewhat spacious location with an anteroom, nearby restrooms and a water fountain as well as adequate parking) for an optimal experience.

The sponsor of MHFA, the National Mental Health Council on Wellbeing (NCWB), prescribes the set curriculum and houses the enrollment and assessment portal for both students and instructors through their Connect website. They also prescribe the number of sessions and the maximum time, both in number of days and start to finish, and maximum class size.

All of our sessions were taught as hybrid which entails approximately two hours of online self-paced pre-work following by several hours of in-person training sessions(s). To accommodate students' schedules, our sessions were taught in single session on a day of the weekend or days when classes were not being held, such as before the start of a semester, particularly in January. Because of the small class size, we received approval from the NCWB to teach MHFA during class time to students in a freshmen level human social sciences-related course that met twice a week for 75 minutes within a two-week period. Following University Institutional Review Board, student participants from a single mid-South public land-grant university were recruited in selected classes through their instructors and academic and student organization advisors who emailed students or uploaded flyers to their Course Management System or organization's listserv. Because of internal grant support, the training was provided at no cost. Thirty-five primarily undergraduate students completed the entire training, including the online post-training evaluation. Almost all were self-identified young adult White females which represents the undergraduate student population of the university.

### **2.1. Variables and Their Measurement**

The standard MHFA pre- and post-evaluation online survey includes 10 questions that assess self-efficacy before and after the training with a 5-point Likert type response set ranging from (1) "do not agree at all" to (5) "strongly agree." Higher scores indicate greater agreement.

The MHFA post-evaluation survey included four questions about the level of MHFA knowledge with a 4-point scale ranging from (1) "none" (no knowledge) to "high." Higher scores indicate higher knowledge level.

### **2.2. Data analysis**

The data were downloaded from the MHFA Connect site, exported into excel, and then imported into SPSS. A frequencies analysis conducted to address the study's first objective and a paired t-test analysis was conducted to address the second objective of the study.

### 3. RESULTS

The means (SD) of the pre-evaluation survey items measuring self-efficacy ranged from 2.23 (1.20) to 4.97 (.17). The means (SD) of the post-evaluation survey items measuring self-efficacy ranged from 2.24 (1.28) to 4.94 (.24) (Table1).

**Table 1.** Descriptive Statistics and Paired T-tests of Pre- and Post-Evaluation of Self-efficacy\*

Item	Pre		Post		t <sup>1</sup>
	Mean	SD	Mean	SD	
Ask anyone directly whether they considered killing themselves	2.23	1.20	4.11	.90	9.86**
Have a supportive conversation with anyone about mental health or substance use challenges	3.66	.94	4.71	.46	7.80**
I should listen without expressing my judgment to anyone I suspect of experiencing a mental health or substance use challenge	4.97	.17	4.94	.24	.57
I should reach out and express my concerns to anyone I work with that might be experiencing a mental health or substance use challenge	3.86	1.22	4.66	.54	3.70**
I should take action to help anyone I work with to address their mental health or substance use challenge(s)	3.51	1.01	4.23	.81	4.04**
If I express my concerns to any person about the mental health signs and symptoms that they are experiencing, it will help that person to seek timely support	3.20	.93	4.03	.75	4.83**
If I give information about mental health professionals to any person experiencing mental health or substance use challenge(s), it will assist person to get help.	3.37	.81	3.89	.93	2.65**
Refer someone showing signs and symptoms of a mental health or substance use challenge(s) to practical resources	2.69	1.32	2.31	1.31	1.29
Refer someone experiencing a mental health or substance use challenge(s) to a health professional	3.37	.81	2.24	1.28	1.49
Respond to a substance use crisis including an overdose and know what to do to keep an individual safe	2.63	1.20	4.37	.69	9.67**

In both instances, the highest mean was for the same item, “I should listen without expressing my judgement to anyone I suspect of experiencing a mental health or substance use challenge.” However, the lowest mean scores differed between pre- and post-evaluation. In the pre-evaluation, it was for “Ask anyone directly whether they considered killing themselves” while for the post-evaluation it was for “Refer someone experiencing a mental health or substance use challenges(s) to a health professional.”

The results of the paired t-test analysis indicated statistical significance for 7 of the 10 items with t-statistics, ranging from 2.65 to 9.86. All statistically significant values were in the expected direction of greater self-efficacy. Of note is the largest mean score change for the items, “ask anyone directly whether they considered killing themselves.” The item, “I should listen without expressing my judgement to anyone I suspect of experiencing a mental health or substance use challenge” had a very high pre-evaluation score indicating that students’ already realize the importance of empathic listening.”

The results of the frequency analysis to address the second objective found that students reported high levels of knowledge about MHFA. The range of the means scores varied little; with less than a .09 difference between the low and high means of the four items and an overall mean of 3.85 (Table 2).

**Table 2.** Descriptive Statistics of Post-Evaluation MHFA Knowledge Level\*

Item	Mean	SD
Describe the purpose of Adult MHFA and the role of the First Aider	3.86	.60
Explain ways in which a First Aider may cope with feelings of discomfort in providing MHFA	3.83	.71
Recognize the signs and symptoms of mental health or substance use challenges that may impact adults	3.80	.41
Use the ALGEE action plan to connect an adult experiencing signs and symptom(s) of a mental health or substance use challenge or crisis to appropriate help or resources	3.89	.32

These results indicate that students became very knowledgeable about MHFA with respect to its purpose, coping strategies, recognizing signs and symptoms and using the ALGEE action plan.

#### **4. DISCUSSION**

This pilot study examined the impact of Mental Health First Aid (MHFA) training on college students' self-efficacy and their post-training knowledge. The findings support existing literature indicating that MHFA training enhances mental health literacy and confidence in providing peer support.[6-8]

The statistically significant improvements in 7 of the 10 self-efficacy items suggest that MHFA training effectively empowers students to recognize and respond to mental health and substance use challenges. The most notable increase was in students' comfort with asking directly about suicidal ideation, a skill often hindered by stigma and fear.[9] This finding aligns with prior research emphasizing MHFA's role in reducing hesitation and increasing preparedness to intervene in crisis situations.[5]

The consistently high scores for empathic listening, even before training, may reflect a baseline awareness among students, possibly influenced by prior exposure to mental health topics or cultural emphasis on emotional support. However, the lower post-training score for referring individuals to professionals suggests a need for more targeted instruction on navigating referral processes and understanding available resources, an area identified in other studies as a common barrier to effective peer support.[2,3]

Students reported high levels of MHFA knowledge following training, with minimal variation across items. This consistency suggests that the hybrid format, combining online modules with in-person instruction, was effective in delivering core content. The strong performance across all knowledge domains, including the ALGEE action plan, supports previous findings that MHFA training improves mental health literacy and equips participants with practical tools for intervention.[7,8]

##### **4.1. Practical Implications**

The findings of this pilot study offer several practical implications for institutions of higher education seeking to enhance student mental health support. First, integrating MHFA training into existing academic courses, particularly those in human development, family sciences, and related disciplines, can help normalize mental health literacy and ensure that a broader range of students are equipped with foundational support skills.

Second, the observed increase in students' self-efficacy suggests that they may be more likely to engage in early intervention when peers exhibit signs of distress. This peer-led support can serve as an informal safety net, potentially reducing the demand on formal campus counseling services and promoting a culture of care. Third, the success of the hybrid training format, which included self-paced online modules followed by in-person sessions, demonstrates that MHFA can be delivered flexibly to accommodate students' academic schedules. Offering training during weekends or academic breaks may increase accessibility and participation.

Fourth, the relatively lower post-training confidence in making referrals highlights the need for MHFA programs to include more detailed instruction on identifying and accessing local mental health resources. Enhancing this component could improve students' ability to connect peers with professional help. Finally, the grant-supported, instructor-led model used in this study presents a scalable framework for other institutions. However, future implementations should prioritize equity by ensuring that training is accessible to students from diverse backgrounds and academic disciplines.

##### **4.2. Limitations and Future Research Directions**

This pilot study was limited by its small sample size, lack of a control group, and reliance on self-reported data, which may be influenced by social desirability bias. Additionally, the sample was demographically homogenous, consisting primarily of White female students, which may limit the generalizability of the findings to broader student populations.

To build on the findings of this study, future research should explore several key directions. First, the current pilot study needs to be replicated with a larger sample size, more students and institutions.

Second, researchers should investigate behavioral outcomes by examining whether MHFA-trained students are more likely to engage in helping behaviors, such as initiating conversations with peers in distress or making appropriate referrals to mental health professionals.

Third, future studies should include more diverse samples, representing varied racial, ethnic, gender, and academic backgrounds, to evaluate the cultural responsiveness and generalizability of MHFA training across different student populations. Fourth, comparative research designs, including control groups or alternative interventions, would help isolate the specific effects of MHFA training and strengthen causal inferences.

Finally, expanding MHFA training to faculty and staff could provide insight into its broader institutional impact. Understanding how MHFA influences campus culture and support networks beyond the student body may reveal additional benefits and inform strategies for comprehensive mental health promotion in higher education.

## **5. CONCLUSION**

The findings of this pilot study reinforce the value of MHFA training in enhancing college students' self-efficacy and mental health literacy. Students demonstrated increased confidence in recognizing and responding to mental health challenges, particularly in addressing suicidal ideation, and reported high levels of knowledge across MHFA domains. These outcomes suggest that MHFA may serve as a valuable tool for building a supportive campus environment.

As mental health concerns continue to rise among college populations, integrating MHFA into academic and co-curricular programming offers a proactive strategy for early intervention and peer-led support. With thoughtful implementation and attention to diversity and accessibility, MHFA has the potential to become a cornerstone of mental health promotion in higher education.

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## **Institutional Review Board Statement**

The study was conducted in accordance with the Declaration of Helsinki and approved as exempt by the Institutional Review Board of the University of Arkansas.

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