

Evaluation of a Mental Health First Aid Educational Intervention for Nursing Professors

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by
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The National Alliance on Mental Illness (NAMI) (2024) revealed that over the past 10 years, the incidence of mental health disorders, such as anxiety, depression, eating disorders, and suicidal thoughts, has steadily increased amongst college students. Mental illness is a prevalent concern among the average college-aged student as many are experiencing their initial onset of symptoms while in their undergraduate program (Hanson, 2024). Furthermore, mental illness during college can lead to long-term consequences, including reduced employment prospects and lower earning potential, negatively impacting the future workforce (Suicide Prevention Resource Center, 2022).

According to Anderson et al. (2024), nursing students face compromised physical and mental health approximately 8% higher than students studying other disciplines. Abu et al. (2018) found that conditions such as anxiety and depression in nursing students consistently resulted in lower grade point averages and higher incidences of course failure. Therefore, it is of utmost importance that nursing faculty are comfortable with the identification and intervention of vulnerable students and their ability to understand and refer students to appropriate mental health resources (Cody et al., 2022).

Unfortunately, most educators do not feel confident in their capacity to appropriately intervene when a student is experiencing a mental health crisis (Watson, 2024). Nonetheless, research has shown that continuing education and professional development increased professor assertiveness and confidence in supporting student mental health concerns (Watson, 2024). Programs that include Mental Health First Aid (MHFA) training offer faculty the skills to intercede, initiate assistance, and support the student developing a mental health issue or experiencing an acute crisis (MHFA, 2024).

Project PICOT/Purpose Statement and Objective

The purpose of this Quality Improvement (QI) project was to implement and evaluate the efficacy of a Mental Health First Aid program provided to nursing professors. Project objectives relate to the following PICOT question: Among nursing professors in an Associate Degree in Nursing (ADN) pre-licensure program (P), how did the implementation of a MHFA training program focused on mental health crisis intervention (I), compared with no education (C), affect student personal counseling referrals (O), at 6 weeks post-implementation (T)? The primary objectives of this project are:

- A 10% increase in WCC nursing faculty confidence in identifying and intervening during a nursing student health crisis as assessed by a pretest-posttest design to evaluate the effects of the intervention: Mental Health Literacy Scale (MHLS)
- A 5% increase in the number of nursing students seeking assistance from WCC nursing faculty for referral to WCC personal counseling services
- A 5% interest of the remaining WCC faculty in participation in the piloted program as a college-wide intervention

Review of Literature

An extensive literature search revealed two themes: barriers to recognizing and treating mental health crises and benefits of MHFA to improve college professor intervention. According to Weissinger et al. (2022), the time needed to seek treatment and limited access to mental healthcare services were among the most prevalent. DiPlacito-DeRango (2016) cited minimal opportunity for faculty professional development and underdeveloped policies regarding the procedure and responsibilities of faculty to intervene in these circumstances as major obstacles.

The National Council for Mental Wellbeing (2024) claimed that individuals who are trained in MHFA obtained the ability to assess the risk factors and signs of mental health disorders and refer symptomatic individuals to professional resources, gain confidence to assist those in distress, practiced self-care, and improved mental healthcare literacy. This project aims to provide intervention for students with mental health disorders in crisis by training the nursing faculty of Waubensee Community College (WCC) in MHFA, educating students regarding personal counseling services and contacts for referral, and instituting and educating nursing faculty regarding the new procedures outlined in the 'Mental Health Matters' (MHM) binder.

Methods

The following sections outline the methods utilized to achieve this QI project. Baseline data collection, intervention implementation, and subsequent data collection were utilized to evaluate outcome criteria. Project design, intervention, setting, participants, sampling, measurement tools and data analysis, ethical considerations, budget, timeline, and barriers to implementation are discussed.

Project Design and Intervention. The project design included implementing a nursing faculty in-service on December 17, 2024, that educated professors regarding the MHFA/MHM training program and the benefits of MHFA certification in managing students with mental health crises. Afterward, the full-time and adjunct nursing faculty were invited to the sessions through a marketing email. Those who attended the Friday, February 14, 2025, MHFA certification training were issued a confidential survey involving a longitudinal, one-group pretest-posttest design to evaluate the efficacy of attendance. Participants completed a 35-question MHLS before class and again 6 weeks afterward. On this date, the project manager also collected demographic information from the participants in the form of a confidential survey.

After attending an instructional session with the manager of the WCC Personal Counseling (PC) Department on December 20, 2024, the project manager developed the faculty MHM binder and corresponding materials: Student PC Referral Form, Confidential Student Demographic Form, PC literature, and laminated master forms. The week following the faculty MHFA certification training, an in-service was conducted for all nursing students regarding the offerings of the WCC PC Department and the availability of faculty to advocate and facilitate the student referral process. This same week, each faculty participant was also trained by the project manager regarding the MHM contents and updated PC referral process.

This QI project was approved by the WCC administration as a pilot program within the nursing department and recommended as a college-wide referral process post-implementation. Post-pilot implementation, the program manager shared the MHFA/MHM faculty in-service and preliminary data with the remaining college faculty before a campus-wide, faculty council meeting. A confidential poll was conducted to determine the total number of college-wide faculty who would be interested in being an integral participant at a later date.

Setting and Participants. This QI project was conducted at a community college in the western suburbs of Chicago, WCC. Participants were a purposive, convenience sample solicited from 32 pre-licensure, ADN nursing instructors: seven full-time faculty, 22 adjunct clinical nursing faculty, and three part-time nursing lab specialists. Inclusion criteria included those working at the Fox Valley Campus in Aurora, IL, and exclusion criteria incorporated those who are already MHFA certified and adjunct instructors who were not working during the Spring 2025 semester.

Sampling. Calculations for sample size were based on the recommendations from G*Power (G*Power, n.d.) To detect a moderate effect size of $f = 0.50$ with a power of .80, $\alpha = .05$, and two-tail, G*Power suggested that 32 subjects were required. However, since this was a pilot study, 20% of the calculated sample size, seven subjects, would be considered adequate.

Measurement Tools and Data Analysis. Ordinal level data collected from the MHLS before and after intervention were analyzed using the Wilcoxon Signed-Rank Test. The author, Matt O'Connor, granted permission to utilize the MHLS tool via email. The Vargha and Delaney (A) effect size measures were utilized to determine the clinical significance of the MHFA/MHM educational intervention, using values of small (.56), medium (.64), and large (.71); statistical significance was defined as $p \leq .05$. The Mann-Whitney U Test was also used to compare pre-test and post-test scores.

The primary outcome variable, faculty confidence, was measured utilizing the MHLS Likert scores. Descriptive statistics were utilized to provide a summary of the project samples. Professor demographics included age, gender, nursing education, years as an instructor, and years as a nurse. Data regarding the secondary variables, the number of student referrals, was gathered by participating nursing instructors in the form of a survey. Student demographic information was gathered utilizing a population survey and also conducted by nursing instructors to ensure student confidentiality. Student demographics included age, gender, nursing class, and the semester of school attending. Ordinal level data was analyzed utilizing the Wilcoxon signed-rank test.

Ethical Considerations. Before the project application, Institutional Review Board (IRB) approval was obtained through the University of Missouri. Surveys were performed utilizing Google Forms and transcribed into SPSS statistical software with participant anonymity protected by the security features built into Google Forms.

Budget. The overall budget for this project cost approximately \$7,503.60 with the majority covered by in-kind support equaling \$6938.00 and a total cost of approximately \$565.60 was assumed by the project manager for participant gift cards and lunch.

Timeline. After IRB application and approval in December 2024, participants were solicited via an email flyer on two occasions before the February 14, 2025, MHFA certification class. The pretest was conducted on February 14, 2025, before the administration of MHFA to participants. The post-test was then conducted six weeks later on March 28, 2025. Data for all surveys was entered into SPSS and by the end of April 2025, data analysis, project completion, and the poster presentation were performed.

Barriers to Implementation. An initial barrier to project implementation was Mizzou IRB approval challenges. Other possible barriers to implementation included low participant interest in joining the pilot program, completion of all surveys, and the possibility of class disruption at WCC.

Results

Of the 32 invited participants, 10 faculty verbally consented to participate in this QI project. Although all 10 faculty members were present during the nursing faculty in-service, only five participants attended the MHFA training on February 14, 2025. Therefore, only these five participants were included in the data analysis, having completed the pre-test survey and the post-test survey. The sample size was 20% male ($n = 1$) and 80% female ($n = 4$). The education level of the faculty was predominantly a master's degree (80%, $n = 4$), with one doctoral degree (20%). An equal amount of participants had been practicing as a registered nurse for 10-20 years

(40%, $n = 2$) as had been practicing for 30-40 years (40%, $n = 2$); only one participant for 20-30 years. The mean number of years as a nurse educator shows that only 20% ($n = 1$) had been a nurse educator for 5-10 years and another 20% ($n = 1$) for 15-20 years. The majority of participants ($n = 3$) had been teaching for 10-15 years.

After comparing the MHLS scores at the two-time points, the Wilcoxon Signed-Rank Test was statistically significant for two MHLS categories: 'How to Seek Mental Health Information' (question 18, $p = .05$) and 'Attitudes that Promote Recognition and Appropriate Help-seeking.' (question 25, $p = .03$). Due to the small sample size ($n = 5$), the Mann-Whitney U was used to identify the statistical difference between MHLS mean pretest total score ($M = 130.8$, $SD = 11.37$) and mean posttest total score ($M = 141.6$, $SD = 11.50$) revealed an 8.3% increase in WCC nursing faculty confidence in identifying and intervening during a nursing student health crisis.

Of the 24 students who sought assistance from faculty for personal counseling referral, 79.2% ($n = 19$) are between the ages of 20-30, 12.5% ($n = 3$) are between the ages of 30-40, and 8.3% ($n = 2$) are 40-50 years of age. 16.7% ($n = 4$) are male and 83.3% ($n = 20$) are female. The majority of the students are White/Caucasian (37.5%, $n = 9$), followed by those who are Black/African American (33.3%, $n = 8$), and Hispanic/Latino (29.2%, $n = 7$). Nineteen students (79.2%) are in their third semester of nursing school, 16.7% ($n = 4$) are in their first, and 4.2% are in their last semester. The greatest amount of students (75%, $n = 18$) are currently enrolled in NUR200. During these six weeks, 23 additional students requested a referral to personal counseling services versus only one student during the same period in the previous semester.

Twenty-four faculty (26.7%) responded to the Google poll presented to the remaining members ($n = 90$). Of those polled participants who had not previously received their MHFA certification ($n = 17$), sixteen individuals (approximately 94.12%) are interested in obtaining their MHFA/MHM training at a later date; 17.78% of faculty.

Conclusion

This QI project aimed to assess the impact of a MHFA/MHM training program on nursing professors, focusing on their confidence in identifying and intervening in a student's mental health crisis, as well as student access to counseling services. The primary objective of a 10% increase in WCC nursing faculty confidence was not met, with an 8.3% increase in MHLS scores post-intervention. The secondary objective of a 5% increase in the number of nursing students seeking assistance from WCC nursing faculty for referral to WCC PC services was exceeded as 24 students were supported versus one within the same six-week timeframe the prior semester. The third objective was also met as the results of the remaining faculty polled yielded a 17.8% increase in interest.

A strength of this QI project is the statistical significance revealed for the second and third objectives. The increase in the number of students assisted ($n = 24$) and the subsequent faculty interested ($n = 16$) in participating in this intervention was promising. The reduced piloted sample size ($n = 5$) may have limited our ability to detect statistically significant effects for the first objective.

In summary, this QI project proved meaningful as the number of students assisted in referral to PC services increased substantially. The increased number of faculty interested in participating in the pilot program as a college-wide intervention may also yield a sample size that would produce a statistically significant increase in the confidence scores assessed by the MHLS. This project manager would recommend that the WCC college administration continue to support interested faculty in obtaining their MHFA certification and also adopt the student referral process to PC services.

References

- Abu, M. E., Al-Akash, H.Y., & Jarrah, S. (2018). Persistent (anxiety and depression) affected academic achievement and absenteeism in nursing students. *The Open Nursing Journal*.
<http://dx.doi.org/10.2174/1874434601812010171>
- Andersen, S., Campbell, T., White, D., & King-Shier, K. (2024). An intervention to improve the mental and physical health of undergraduate nursing students. *The Canadian Journal of Nursing Research*, 56(3), 317–328.
- Cody, K., Scott, J. M., & Simmer-Beck, M. (2022). Examining the mental health of university students: A quantitative and qualitative approach to identifying prevalence, associations, stressors, and interventions. *Journal of American College Health*, 72(3), 776–786.
<https://doi-org.proxy.mul.missouri.edu/10.1080/07448481.2022.2057192>
- DiPlacito-DeRango, M. (2016). Acknowledge the barriers to better the practices: Support for student mental health in higher education, *The Canadian Journal for the Scholarship of Teaching and Learning*, 7(2). http://ir.lib.uwo.ca/cjsotl_rcacea/vol7/iss2/2
- The G*Power Team (n.d.). G*Power: Statistical power analyses for Mac and Windows.
<http://www.gpower.hhu.de/en.htm>
- Hanson, M. (2024, January 10). *College enrollment and student demographic statistics*. Educational Data Initiative. <https://educationdata.org/college-enrollment-statistics>
- National Alliance on Mental Illness (NAMI). (2024). *Mental health in college*.
<https://www.nami.org/your-journey/kids-teens-and-young-adults/young-adults/mental-health-in-college/>
- National Council for Mental Wellbeing. (2024). *Mental health first aid*.
<https://www.thenationalcouncil.org/our-work/mental-health-first-aid/>
- Mental Health First Aid (MHFA). (2024). *About mental health first aid*.
<https://www.mentalhealthfirstaid.org/about/>

O'Connor, M., & Casey, L. (2015). The mental health literacy scale (MHLS): A new scale-based measure of mental health literacy, *Psychiatry Research*,

<http://dx.doi.org/10.1016/j.psychres.2015.05.064>

Suicide Prevention Resource Center. (2022). *Consequences of student mental health issues*.

<https://sprc.org/settings/colleges-and-universities/consequences-of-student-mental-health-issues/#:~:text=Mental%20health%20problems%20can%20affect,earning%20potential%2C%20and%20overall%20health>.

Watson, K. J. (2024). Secondary teachers' perceived ability to support student mental health.

Educational Research: Theory and Practice, 35(1), 233-247.

<https://files.eric.ed.gov/fulltext/EJ1417714.pdf>

Weissinger, G., Ho, C., Ruan-Iu, L., Van Fossen, C., & Diamond, G. (2022). Barriers to mental health services among college students screened in student health: A latent class analysis. *Journal of American College Health*, 1–7.

<https://doi.org/10.1080/07448481.2022.2104614>

Appendix A: D1: DNP Residential Project Committee Appointment Request

DNP D1 Form



**DNP Residential Project Committee
Appointment Request**

Student's Name: Monica M. Smogur

Student's Number: 14403521

Date Submitted: 06/18/2024

I request that the ~~faculty~~ members listed below be appointed to serve as my Residential Project committee.

Dr. Stefanie Birk

Name of Chair*

Stefanie Birk

Signature, Chair of Committee

Dr. Anne Heyen

Member*

Anne K Heyen DNP, RN, CNE

Signature, Member

Dr. Mary Beth Hutches

Member*

Dr. Mary Beth Hutches

Signature, Member

Member*

Monica M. Smogur

Signature of Student

*Please type or print

Signature, Member

Signature of Director of DNP
Program, School of Nursing

Appendix B: D3: