

2-11-2025

Promoting Consistency in PHQ-9 Depression Screening for Young Adults in an Outpatient Mental Health Clinic.

Abena V. Prempeh
Walden University

Follow this and additional works at: <https://scholarworks.waldenu.edu/dissertations>



Part of the [Nursing Commons](#)

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact ScholarWorks@waldenu.edu.

Walden University

College of Nursing

This is to certify that the doctoral study by

Abena Viola Prempeh

has been found to be complete and satisfactory in all respects, and
that any and all revisions required by
the review committee have been made.

Review Committee

Dr. Sue Bell, Committee Chairperson, Nursing Faculty
Dr. Margaret Harvey, Committee Member, Nursing Faculty

Chief Academic Officer and Provost Sue
Subocz, Ph.D.

Walden University
2025

Executive Summary: Staff Education Project

Promoting Consistency in PHQ-9 Depression Screening for Young Adults in an Outpatient

Mental Health Clinic

by

Abena V. Prempeh

MS, Walden University, 2023

BS, Western Governors University, 2018

Executive Summary Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

February 2025

Summary

Depression is a leading global health burden that increased, especially among young adults, during the COVID-19 pandemic. The purpose of this Doctor of Nursing Practice staff education project was to improve staff knowledge of the Patient Health Questionnaire (PHQ-9) depression screening tool and its use among young adults. The project question asked whether education on the PHQ-9 depression screening process would increase staff knowledge and confidence to apply the PHQ-9 screening tool in practice. The assessment strategy involved pretest and posttest assessments to measure staff knowledge of the purpose of the PHQ-9, perceived competency in tool use, screening accuracy, and screening outcomes, including use of the tool in follow-up care. The comparison of pretest and posttest results showed improved knowledge and the 12 participating staff members demonstrated better ability to diagnose depression using the PHQ-9 tool. The staff understanding of the PHQ-9's purpose increased by 35%, knowledge of correct administration by 40%, and confidence in using the tool by 40%. The products delivered to the organization included a comprehensive depression training program, including education materials and an evaluation report. Practice recommendations resulting from the project included integrating regular PHQ-9 training into clinic procedures and conducting further analysis of the long-term outcomes of improved screening. An implication for nursing practice was the role of training to improve consistency in depression screening. Positive social change may result from the project by ensuring use of the PHQ-9 screening tool and depression management best practices, thereby creating an effective and equitable health care environment.

Background

Depression is a prevalent mental health condition affecting approximately 5% of the worldwide adults (Lee et al., 2023). Major depression is the most common mental disorder in the United States and the leading risk factor for suicide. Depression rates rose from 6.6% in 2005 to 7.3% in 2015, with early reports from 2020 showing the COVID-19 pandemic exacerbating the mental health crisis, especially among adolescents and young adults (Goodwin et al., 2022). Early detection and evidence-based management of depression has been shown to improve outcomes, reduce suicide risk, and lower healthcare costs. The PHQ-9, a depression screening tool, is used in primary care for diagnosing depression and assessing depression severity. The PHQ-9, used globally and translated into over 70 languages, has been adapted and validated for diverse languages and cultures in high-income countries to expand its clinical use (Carroll et al., 2020). The PHQ-9 is a valid, reliable instrument for depression screening across diverse sociodemographic factors, with consistent summary scores across cultures, despite cultural differences on individual items (Pranckeviciene et al., 2022). Accurate and timely depression screening has enabled earlier identification and better management of depression, but variability in staff knowledge and lack of standardization in PHQ-9 use has resulted in missed intervention opportunities (Ford et al., 2020).

Evidence has demonstrated that the PHQ-9 is psychometrically robust and well-received by the target populations for screening (Beswick et al., 2022). Despite the PHQ-9's validity and reliability for depression screening, gaps in practice were found at a outpatient mental health clinic, including inconsistent use of the tool, inconsistent

interpretation of the PHQ-9 screening results, and delayed depression management, all of which could lead to poorer depression outcomes. Concerns about variations in staff training, inconsistency of the PHQ-9 screening, and the lack of accuracy in screenings prompted further investigation into the problem. Staff members at the clinic responsible for daily screenings validated these issues. By reviewing current practices, gathering information, considering staff members' viewpoints, and promoting interprofessional team collaboration, the project problem was defined as inconsistent adherence to clinic protocols such as screening frequency and follow-up and delayed or inaccurate screening results highlighting performance issues in depression management.

While there were no definitive national guidelines specifying exact screening intervals for all patients, key recommendations from leading organizations offered a framework for best practices. A robust body of evidence supported depression screening and treatment in primary health care for early identification and intervention. The United States Preventive Services Task Force (USPSTF, 2016) recommended depression screening for adults aged 18 and older, alongside support systems and evidence-based treatment protocols. The American Academy of Family Physicians supported the USPSTF's guidelines (Siniscalchi et al., 2020). Additionally, the Centers for Medicare and Medicaid Services (CMS) stressed the importance of these screening recommendations in their new value-based payment models (Siniscalchi et al., 2020). The review of the literature showed that proper screening, staff education, and consistent use of tools like the PHQ-9 improve mental health outcomes, underscoring the need for systematic staff education to ensure accurate depression screening and management

across clinical settings. The evidence included three experimental studies (Level I), one quasi-experimental study (Level II), five nonexperimental or qualitative studies (Level III), and five clinical practice guidelines (Level IV), all supporting the use of standardized depression screening tools like the PHQ-9 for accurate diagnosis and treatment. Research showed that standardized tools like the PHQ-9 improve diagnostic accuracy. Studies also suggested that suicide risk screening, coupled with effective referrals for evaluation and treatment, can identify at-risk individuals and prevent suicidal behavior (Mann et al., 2021). Depression screening during routine checkups can help identify and treat depression, potentially reducing psychiatric hospitalizations (Chen et al., 2023). Standardizing use of the PHQ-9 ensures accurate, equitable care, promoting consistent screening and reducing mental health disparities. Therefore, enhancing staff knowledge of the PHQ-9 tool and its clinical application was deemed crucial for early detection and effective depression management among young adults at the outpatient mental health clinic.

Project Question and Purpose

Concerns about variations in staff training, inconsistency of the PHQ-9 screening, and the lack of accuracy in screenings prompted investigation into the problem at the clinic. Staff members at the outpatient mental health clinic responsible for daily screenings validated these issues. A substantial amount of literature evidence supported the importance of screening and treating depression in primary care settings to enable early detection and intervention (Siniscalchi et al., 2020). Therefore, the project question I addressed was: Will education on the PHQ-9 depression screening tool and the

screening process lead to improved staff knowledge and confidence to ensure timely identification and management of depression in young adult patients? The project examined how targeted staff education on the PHQ-9 tool may improve depression identification, depression management, and follow-up care for young adults in an outpatient mental health clinic.

The purpose of this project was to address the gaps in practice by improving staff knowledge and confidence in using the PHQ-9 tool accurately to screen for depression in young adults. Moreover, standardized screening, improved early detection, and enhanced follow-up care through targeted staff training were expected to lead to better patient outcomes due to increased consistency in use of the PHQ-9 tool in the outpatient mental health clinic. I aimed to improve depression screening accuracy, ensure timely interventions, and establish structured ongoing care for young adults by enhancing staff understanding of the PHQ-9 tool and how to apply it in practice. This staff education project was expected to result in improved patient outcomes and more effective management of depression in the target population.

Staff Education Project Development

Participants in this project included the clinical staff members responsible for administering depression screenings, including nurses, psychiatric mental health nurse practitioners, medical staff assistants, and mental health counselors in the outpatient mental health clinic. A total of 12 staff members participated in the project education, pretest, and posttest. This group comprised two nurses, three psychiatric mental health nurse practitioners, four medical staff assistants, and three mental health counselors. The

project began with a needs assessment, using surveys and interviews to identify gaps in staff knowledge of the PHQ-9 tool. The assessment revealed inconsistencies in understanding and application, highlighting the need for staff education. A PowerPoint presentation was developed to educate staff on the PHQ-9 tool, covering depression screening in young adults, administration of the tool and interpretation of scores, common mistakes, and best practices for follow-up care. Training sessions were held during staff meetings, featuring interactive elements like the pretest and posttest surveys, discussions, case examples, handouts, and guidance on using electronic health records to track PHQ-9 scores.

Pretest and posttest surveys assessed staff knowledge about and confidence in using the PHQ-9. The surveys included questions on the tool's purpose, administration, and interpretation; staff satisfaction with the education presentation and content; and staff intent to use the information, following the ADDIE model. The pretest and posttest surveys are attached as appendices (see Appendix A and Appendix B). Feedback forms collected post training evaluations of content clarity, relevance, and perceived improvements in knowledge and confidence. Descriptive statistics were used to determine knowledge and confidence scores and to compare pretest and posttest data. These data provided insight into the training's effectiveness for improving staff knowledge and staff confidence to translate the evidence related to depression screening using the PHQ-9 into clinical practice.

Results

In the evaluation, I assessed the educational intervention's effectiveness in improving staff knowledge, confidence, and clinical practice. Key metrics showed knowledge improvement, indicating an enhanced understanding of the PHQ-9 tool after the education. Changes in confidence were measured through Likert-type scale questions, and staff competence was assessed with the PHQ-9. Feedback on training content and delivery, favorable responses, and improvement suggestions helped evaluate the intervention's quality and inform future sessions. Feedback after the education was overwhelmingly positive, with participants noting the value in improving depression screening and management in young adults. They expressed eagerness to apply the knowledge and appreciated the professional development opportunity. Feedback confirmed that the training improved staff knowledge, confidence, and application of the PHQ-9 tool. Staff found it relevant and beneficial, with suggestions for more discussion time and periodic refreshers to enhance future training and ensure optimal tool use. Despite challenges in applying evidence-based practice (EBP) due to research and practice gaps, EBP helped avoid harmful or inefficient practices and enhanced healthcare quality (Cardoso et al., 2021).

After the implementation, staff members showed significant improvements in knowledge and confidence in using the PHQ-9 tool. Survey results indicated a better understanding of its purpose, administration, and interpretation. Participants found the training relevant and committed to consistently applying the tool in their practice. The staff education had a positive impact on the organization, thus enhancing early depression

detection, timely interventions, standardizing practices within the organization, and the expected long-term result is better patient outcomes, including reduced suicide rates and improved quality of life for the patients and families.

Table 1 indicates the organization's performance using knowledge analysis to evaluate staff understanding of the PHQ-9 tool before and after the education intervention, identifying knowledge gaps and areas for further training.

Table 1

Knowledge and Confidence Improvement in PHQ-9 Screening

Area of knowledge	Pretest responses (%)	Posttest responses (%)	Percentage improvement
Understanding the purpose of PHQ-9	60%	95%	35%
Correct administration of PHQ-9 tool	50%	90%	40%
Interpretation of PHQ-9 results	55%	92%	37%
Confidence in using PHQ-9 tool	45%	85%	40%
Total (<i>n</i>)	52.8%	90.5%	38%

Note. Table 1 shows that staff knowledge and confidence improved after training, with a 35% increase in understanding the PHQ-9's purpose, a 40% improvement in its correct administration, and a 40% boost in confidence.

Time constraints limited the depth of coverage on specific aspects of the PHQ-9 tool and depression management during the training sessions. Staff members expressed interest in additional training on complex cases and cultural considerations, which was addressed within the project's scope. While immediate improvements in knowledge and confidence were observed, the lack of long-term follow-up limited my ability to assess

sustained behavioral change. Variability in participant responses, based on prior knowledge and experience, also highlighted the need for more tailored follow-up. Despite limitations, the results showed significant improvements in staff knowledge and confidence. Future iterations could address these challenges with ongoing support and additional training opportunities.

This project has implications beyond the local site, particularly those serving young adults. Depression is a leading cause of disability worldwide, and early identification is key to improving long-term mental health outcomes (Bains & Abdijadid, 2023). Implementing standardized tools like the PHQ-9 ensures early detection, enabling timely treatment and better patient care. The lessons from this project can be applied to other outpatient mental health clinics, promoting consistent, evidence-based depression screening. The use of standardized screening tools like the PHQ-9 improve clinical outcomes and reduce disparities, ensuring all patients receive equal care in identifying and managing depression. This approach can contribute to improving mental health care on a national and global scale, particularly for vulnerable populations like young adults.

Conclusions

Implementing the PHQ-9 staff education project positively impacted the organization by improving staff knowledge and confidence in using the depression screening tool. A recommendation for the future is to maintain staff proficiency; periodic refresher courses and follow-up workshops should focus on advanced interpretations, complex cases, and cultural competency. Long-term follow-up assessments through direct observation will measure the sustained impact and ensure consistent application of

the PHQ-9 tool in clinical practice. Incorporating cultural competency training would also help staff better understand how depression may present differently across diverse populations, addressing potential biases and ensuring that screening and treatment are relevant to the unique needs of all young adult patients. Additionally, expanding training to include other age groups and marginalized communities would broaden depression screening, helping to identify and manage depression in additional vulnerable populations.

This project highlighted nurses' crucial role in identifying and managing mental health conditions for nursing practice. By enhancing their use of evidence-based tools like the PHQ-9, nurses can improve early depression detection and patient outcomes and reduce stigma while emphasizing the importance of ongoing professional development. This initiative promoted social change by ensuring equitable depression identification and management for diverse populations, especially young adults. Standardized screening reduces mental health disparities, fostering an inclusive healthcare environment. The stigma of a mental health diagnosis was also addressed by encouraging individuals to seek help without fear of judgment in a supportive and more inclusive health care setting.

References

- American Psychological Association. (n.d.). *Patient Health Questionnaire (PHQ-9) Depression Screening Tool*.
<https://www.apa.org/depression-guideline/patient-health-questionnaire.pdf>
- Bains, N., & Abdijadid, S. (2023, April 10). *Major Depressive Disorder*. In *Statpearls* [Internet]. Statpearls Publishing. Available from
<https://www.ncbi.nlm.nih.gov/books/NBK559078/>
- Beswick, E., Quigley, S., Macdonald, P., Patrick, S., Colville, S., Chandran, S., & Connick, P. (2022). The Patient Health Questionnaire (PHQ-9) as a tool to screen for depression in people with multiple sclerosis: A cross-sectional validation study. *BMC Psychology*, *10*(1), 281.
<https://doi.org/10.1186/s40359-022-00949-8>
- Cardoso, D., Couto, F., Cardoso, A. F., Bobrowicz-Campos, E., Santos, L., Rodrigues, R., Coutinho, V., Pinto, D., Ramis, M. A., Rodrigues, M. A., & Apóstolo, J. (2021). The effectiveness of an evidence-based practice (EBP) educational program on undergraduate nursing students' EBP knowledge and skills: A cluster randomized control trial. *International Journal of Environmental Research and Public Health*, *18*(1), 293.
<https://doi.org/10.3390/ijerph18010293>
- Carroll, H. A., Hook, K., Perez, O. F. R., Denckla, C., Vince, C. C., Ghebrehiwet, S., Ando, K., Touma, M., Borba, C. P. C., Fricchione, G. L., & Henderson, D. C. (2020). Establishing reliability and validity for mental health screening

instruments in resource-constrained settings: Systematic review of the PHQ-9 and key recommendations. *Psychiatry Research*, 291, 113236.

<https://doi.org/10.1016/j.psychres.2020.113236>

Chen, Y. L., Wu, M. S., Wang, S. H., Lien, Y. J., Liao, S. C., Chang, C. M., Huang, W.

L., Wu, C. S., & Hsu, C. C. (2023). Effectiveness of health checkup with depression screening on depression treatment and outcomes in middle-aged and older adults: A target trial emulation study. *Lancet*, 43, 100978.

<https://doi.org/10.1016/j.lanwpc.2023.100978>

Ford, J., Thomas, F., Byng, R., & McCabe, R. (2020). Use of the patient health questionnaire (PHQ-9) in practice: Interactions between patients and physicians. *Qualitative Health Research*, 30(13), 2146–2159.

<https://doi.org/10.1177/1049732320924625>

Goodwin, R. D., Dierker, L. C., Wu, M., Galea, S., Hoven, C. W., & Weinberger, A. H. (2022). Trends in U.S. depression prevalence from 2015 to 2020: The widening treatment gap. *American Journal of Preventive Medicine*, 63(5), 726–733.

<https://doi.org/10.1016/j.amepre.2022.05.014>

Karrouri, R., Hammani, Z., Benjelloun, R., & Otheman, Y. (2021). Major depressive disorder: Validated treatments and future challenges. *World Journal of Clinical Cases*, 9(31), 9350–9367.

<https://doi.org/10.12998/wjcc.v9.i31.9350>

- Lee, E. H., Kang, E. H., Kang, H. J., & Lee, H. Y. (2023). Measurement invariance of the patient health questionnaire-9 depression scale in a nationally representative population-based sample. *Frontiers in Psychology, 14*, 1217038.
<https://doi.org/10.3389/fpsyg.2023.1217038>
- Mann, J. J., Michel, C. A., & Auerbach, R. P. (2021). Improving suicide prevention through evidence-based strategies: A systematic review. *American Journal of Psychiatry, 178*(7), 611–624. <https://doi.org/10.1176/appi.ajp.2020.20060864>
- Pranckeviciene, A., Saudargiene, A., Gecaite-Stonciene, J., Liaugaudaite, V., Griskova-Bulanova, I., Simkute, D., Naginiene, R., Dainauskas, L. L., Ceidaite, G., & Burkauskas, J. (2022). Validation of the Patient Health Questionnaire-9 and the Generalized Anxiety Disorder-7 in Lithuanian student sample. *PloS one, 17*(1), e0263027.
<https://doi.org/10.1371/journal.pone.0263027>
- Siniscalchi, K. A., Broome, M. E., Fish, J., Ventimiglia, J., Thompson, J., Roy, P., Pipes, R., & Trivedi, M. (2020). Depression screening and measurement-based care in primary care. *Journal of Primary Care & Community Health, 11*, 2150132720931261.
<https://doi.org/10.1177/2150132720931261>
- U.S. Preventive Services Task Force. (2016). Screening for depression in adults: U.S. Prevention Services Task Force Recommendation Statement. *JAMA, 315*(4), 380-387. <http://doi.org/10.1001/jama.2015.18392>

Appendix A Pretest Questions

Please rate the following statements based on your agreement (Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree)

1. I understand how to effectively use and interpret the PHQ-9 Screening tool.
 - Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree

2. I am confident in my ability to apply standardized PHQ-9 procedures in my practice.
 - Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree

3. I believe that standardized procedures for PHQ-9 will improve the accuracy of depression diagnoses.
 - Strongly Disagree
 - Disagree
 - Neutral
 - Agree

- Strongly Agree
4. I feel equipped to follow-up appropriately with patients based on their PHQ-9 results.
- Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree
5. I have received adequate training on the use and interpretation of the PHQ-9 screening tool.
- Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree
6. How likely are you to use the PHQ-9 screening tool in your practice?
- Very Unlikely
 - Unlikely
 - Neutral
 - Likely
 - Very Likely

True or False Questions

7. What actions should be taken if a patient shows reluctance to complete the PHQ-9? Explain the importance of the PHQ-9 for their care and offer help to complete it.

True or False

8. A 22-year-old female patient came in for routine follow up and her PHQ-9 score was 14. This score indicates severe depression.

True or False

9. What is the role of follow-up appointments in managing patients with high PHQ-9 scores? They help to monitor progress, adjust treatment plans, and provide ongoing support.

True or False

10. What should you do if a patient is uncomfortable with the PHQ-9 questions? Offer to explain the questions and assure them of confidentiality and the importance of the screening.

True or False

Answer Key for Questions 7 to 10

Question 7: Answer: True; explain the importance of the PHQ-9 for their care and offer assistance.

Question 8: Answer: False; a score of 14 indicates moderate depression

Question 9: Answer: True; help to monitor progress, adjust treatment plans, and provide ongoing support

Question 10: Answer: True; offer to explain the questions and assure them of confidentiality and the importance of the screening

Knowledge Section

The PHQ-9 is a validated tool used to screen for depression. It consists of 9 questions that assess the frequency of depressive symptoms over the past 2 weeks. The tool helps in identifying the severity of depression and guiding treatment decisions.

Each item on the PHQ-9 is scored from 0 (not at all) to 3 (nearly every day), with a total score ranging from 0 to 27. The total score is categorized into:

- **0-4:** Minimal depression
- **5-9:** Mild depression
- **10-14:** Moderate depression
- **15-19:** Moderately severe depression
- **20-27:** Severe depression

Administration Protocol: The PHQ-9 should be administered at every patient visit.

Consistent and routine administration ensures timely detection and management of depression.

Appendix B Posttest Questions

Please rate the following statements based on your agreement (Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree)

1. I understand how to effectively use and interpret the PHQ-9 Screening tool.
 - Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree

2. I am confident in my ability to apply standardized PHQ-9 procedures in my practice.
 - Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree

3. I believe that standardized procedures for PHQ-9 will improve the accuracy of depression diagnoses.
 - Strongly Disagree
 - Disagree
 - Neutral
 - Agree

- Strongly Agree
4. I feel equipped to follow-up appropriately with patients based on their PHQ-9 results.
- Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree
5. I have received adequate training on the use and interpretation of the PHQ-9 screening tool.
- Strongly Disagree
 - Disagree
 - Neutral
 - Agree
 - Strongly Agree
6. How likely are you to use the PHQ-9 screening tool in your practice?
- Very Unlikely
 - Unlikely
 - Neutral
 - Likely
 - Very Likely

True or False Questions

7. What actions should be taken if a patient shows reluctance to complete the PHQ-9? Explain the importance of the PHQ-9 for their care and offer help to complete it.
- True or False
8. A 22-year-old female patient came in for routine follow up and her PHQ-9 score was 14. This score indicates severe depression.
- True or False
9. What is the role of follow-up appointments in managing patients with high PHQ-9 scores? They help to monitor progress, adjust treatment plans, and provide ongoing support.
- True or False
10. What should you do if a patient is uncomfortable with the PHQ-9 questions? Offer to explain the questions and assure them of confidentiality and the importance of the screening.
- True or False

Answer Key for Questions 7 to 10

Question 7: Answer: True; explain the importance of the PHQ-9 for their care and offer assistance.

Question 8: Answer: False; a score of 14 indicates moderate depression

Question 9: Answer: True; help to monitor progress, adjust treatment plans, and provide ongoing support

Question 10: Answer: True; offer to explain the questions and assure them of confidentiality and the importance of the screening

Knowledge Section

The PHQ-9 is a validated tool used to screen for depression. It consists of 9 questions that assess the frequency of depressive symptoms over the past 2 weeks. The tool helps in identifying the severity of depression and guiding treatment decisions.

Each item on the PHQ-9 is scored from 0 (not at all) to 3 (nearly every day), with a total score ranging from 0 to 27. The total score is categorized into:

- **0-4:** Minimal depression
- **5-9:** Mild depression
- **10-14:** Moderate depression
- **15-19:** Moderately severe depression
- **20-27:** Severe depression

Administration Protocol: The PHQ-9 should be administered at every patient visit.

Consistent and routine administration ensures timely detection and management of depression.