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Improving Evidence-Based Practices in Healthcare Settings Using Patient Health Questionnaire-9 and General Anxiety Disorder-7 Screening Tools

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Adebukola Aladesanmi

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Walden University
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Executive Summary: Staff Education Project
Improving Evidence-Based Practices in Healthcare Settings Using Patient Health
Questionnaire-9 and General Anxiety Disorder-7 Screening Tools

by

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Executive Summary Submitted in Partial Fulfillment
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Summary

In this doctoral project, I focused on enhancing the adoption of evidence-based practices (EBPs) in healthcare settings, specifically through the implementation of the Patient Health Questionnaire-9 (PHQ-9) and General Anxiety Disorder-7 (GAD-7) mental health screening tools. The practice problem was the ineffective integration of EBPs into clinical workflows, resulting in inefficiencies, staff burden, and missed opportunities for timely mental health interventions. Addressing this gap is crucial to enhancing patient outcomes and optimizing clinical workflows. The practice-focused question for this project was: How does training healthcare staff on the use of PHQ-9 and GAD-7 screening tools, compared to no structured training, impact workflow efficiency and the adoption of EBPs over 3 months? I developed this question to assess whether structured training can enhance staff engagement, improve tool adoption, and streamline clinical processes. I used the promoting action on research implementation in health services (i-PARIHS) framework to guide the implementation of these screening tools. The analytical strategies involve pre- and posttraining surveys to measure staff engagement and adoption rates, along with workflow assessments to track efficiency improvements. Initial findings indicated that structured training substantially improves staff engagement with the tools, with participants' scores increasing from 65% pretraining to 85% posttraining. Only 45% of the healthcare staff were consistently using the PHQ-9 and GAD-7 pretraining, increasing to 75% posttraining. Similar structured interventions can be applied to other clinical practices, promoting sustainable EBP integration, improved patient care through more timely mental health screening, better staff development, and increased organizational capacity to implement EBPs.

Background

Healthcare organizations face ongoing challenges in effectively implementing EBPs, particularly in the mental health domain, where validated screening tools like the PHQ-9 and GAD-7 are crucial for early detection of conditions, such as depression and anxiety (Rudman et al., 2024). Despite the known effectiveness of these tools, their use is often inconsistent due to insufficient staff training and lack of structured implementation frameworks. This gap in practice leads to inefficiencies, missed diagnoses, and delayed interventions, ultimately affecting patient care quality. The adoption of EBPs can be significantly improved by addressing these issues through structured training programs and robust support systems for healthcare professionals.

The purpose of this doctoral project was to investigate how structured training on the PHQ-9 and GAD-7 screening tools can improve the adoption of evidence-based practices and enhance workflow efficiency in healthcare settings. The project was focused on healthcare staff, including nurses and physicians, to evaluate whether training can foster their use of these screening tools, thereby improving patient outcomes. The central question guiding this project was: How does training healthcare staff on the use of PHQ-9 and GAD-7 screening tools, compared to no structured training, impact workflow efficiency and the adoption of EBPs over a 3-month period? I developed this question to explore the impact of structured training on the consistent use of these tools and its potential to improve overall care delivery.

The i-PARIHS framework served as the guiding structure for this project because it could be used to address key factors, such as context, staff readiness, and facilitation methods to ensure successful adoption of EBPs. The i-PARIHS framework emphasizes

the need for a structured approach that includes leadership involvement, ongoing support, and tailored training to facilitate the integration of new practices into clinical workflows (Royer et al., 2024). Research has demonstrated that frameworks, like i-PARIHS, significantly enhance the effectiveness of EBP adoption because they ensure that the intervention aligns with the needs of the staff and the organization (Kim & Jeong, 2024; Rudman et al., 2024).

Several studies support the need for structured training programs in healthcare settings. For instance, Tucker et al. (2022) found that training healthcare leaders in EBP principles can establish a strong foundation for promoting and sustaining evidence-based changes in clinical settings. Similarly, Seers et al. (2018) and Farokhzadian et al. (2021) highlighted the positive impact of structured facilitation on improving staff engagement and competence in using evidence-based tools. These studies emphasized the importance of structured training and leadership involvement in promoting EBP adoption and addressing common barriers, such as staff resistance and a lack of time.

The strength of the evidence supporting the need for this practice change was high because the studies cited were peer reviewed and provided robust data on the effectiveness of structured training programs in healthcare settings. Additionally, the use of validated tools, like the PHQ-9 and GAD-7, has been shown to improve patient care outcomes by providing early detection of mental health conditions and facilitating timely interventions (Karim et al., 2024; Rudman et al., 2024). These findings suggest that implementing structured training on using these tools can have a significant, positive impact on both staff workflows and patient outcomes.

Staff Education Project Development

The participants in this project included 50 healthcare staff members, consisting of 30 nurses and 20 physicians. I selected these individuals because they played a direct role in patient care and were in a position to benefit from the structured training on the PHQ-9 and GAD-7 screening tools. These tools are crucial for identifying patients at risk of depression and anxiety. Healthcare staff at the project site, a psychiatric healthcare setting, were the primary participants because the population they treat are at higher risk for mental health disorders and benefit greatly from early screening.

The project was developed with a focus on providing structured training to healthcare staff to improve their use of the PHQ-9 and GAD-7 tools. The first step in the process was conducting an organizational readiness assessment to ensure that both leadership and staff were prepared for the change. This included gaining approval from the Doctor of Nursing Practice project mentor and organizational leaders as well as securing the necessary resources. The project involved creating several educational materials, including a PowerPoint presentation on the PHQ-9 and GAD-7 screening tools (see Appendix A). I designed these materials to cater to different learning preferences and ensure accessibility for all staff members.

The implementation phase involved delivering the training through a combination of in-person workshops and online modules. In-person training sessions were focused on hands-on learning, case studies, and role-playing exercises to reinforce the use of the tools in real-life clinical scenarios. I created online modules to provide flexibility for staff who could not attend the in-person sessions. Each training session was followed by a

brief survey to assess staff engagement and identify any immediate challenges or concerns related to the use of the tools.

I collected evidence through pre- and posttraining surveys to measure staff knowledge and confidence in using the tools. Pretest questions focused on baseline understanding, such as “What is the purpose of the PHQ-9 screening tool?” while posttest questions (see Appendix B) assessed knowledge gained, like “How do you score and interpret a GAD-7 screening tool?” These surveys were designed to assess the impact of the training on staff understanding and preparedness to implement the tools in their clinical workflows. Additionally, I conducted workflow assessments to track changes in efficiency after the training. These assessments focused on the time required to complete mental health screenings and the frequency with which the screening tools were used in daily clinical practice.

The analysis of the collected evidence involved comparing pre- and posttraining survey results to determine changes in staff knowledge and confidence in using the screening tools. I analyzed the workflow assessments to identify improvements in efficiency and assess whether the use of PHQ-9 and GAD-7 tools led to quicker, more accurate mental health assessments. The data from these evaluations were used to inform any adjustments to the training materials and to plan for follow-up sessions to reinforce learning.

The evaluation of the project’s success was complex. Key evaluation metrics included staff engagement, adoption rates of the PHQ-9 and GAD-7 tools, and improvements in workflow efficiency. These metrics were tracked over a 3-month period following the training. I determined the success of the project by the degree to which staff

incorporated the tools into their daily practices, the improvements in workflow efficiency, and the feedback from staff regarding the effectiveness of the training. Ongoing evaluation through feedback loops, including posttraining surveys and informal discussions, enabled continuous improvement and ensured that any challenges were promptly addressed. The overall assessment of the project will contribute valuable insights into the effectiveness of structured training for the adoption of EBPs and the integration of mental health screening tools in clinical settings.

Results

Postimplementation results indicate substantial improvements across several key metrics. A total of 50 healthcare staff members participated in the pre- and posttraining evaluations. These participants showed a marked improvement in staff engagement, tool adoption rates, and workflow efficiency, demonstrating the effectiveness of the training program. Before the training program, staff engagement was measured at 65%; however, after completing the structured training sessions on the PHQ-9 and GAD-7 screening tools, staff engagement increased substantially to 85%. This increase reflects heightened motivation, improved confidence, and greater competency in using these tools as part of their daily clinical routines. The positive impact of training on staff engagement is crucial because it indicates that the staff is more likely to incorporate the tools into their practices, leading to better patient outcomes and more efficient workflows.

In terms of tool adoption, pretraining, only 45% of healthcare staff were consistently using the PHQ-9 and GAD-7 tools in their practice. Following training, their adoption rates increased to 75%, indicating a notable improvement in the integration of these screening tools into clinical workflows. This increase in adoption reflects the

effectiveness of the training program in equipping healthcare providers with the necessary skills and knowledge to utilize these tools effectively for mental health screening purposes. This result is significant because the use of these validated screening tools is essential for early identification of mental health conditions, such as depression and anxiety, which can improve patient care outcomes when addressed promptly.

One of the most impactful outcomes of the project was the improvement in workflow efficiency. The participants' pretraining efficiency was relatively low, with only a 10% increase in workflow efficiency; however, posttraining, there was a substantial 35% improvement in workflow efficiency. This result demonstrates that the training program not only improved staff engagement and tool adoption but also led to more efficient clinical processes. Healthcare staff were able to conduct screenings more efficiently, resulting in shorter patient wait times and improved overall patient management. The training helped staff integrate the PHQ-9 and GAD-7 tools into their clinical workflows without disrupting their day-to-day tasks, thus enhancing both the quality of care and operational efficiency.

Table 1 presents a summary of the key metrics, including staff engagement, tool adoption rates, and workflow efficiency, before and after the training sessions. Table 1 provides a clear overview of the improvements made in these areas following the structured training. The table shows the substantial progress made in terms of the percentage increase in all measured variables, reinforcing the overall success of the project.

Table 1*Staff Engagement and Workflow Efficiency Outcomes*

Metric	Pretraining (%)	Posttraining (%)	Change (%)
Staff engagement	65	85	20
Tool adoption rate	45	75	30
Workflow efficiency improvement	10	35	25

Figure 1 visually illustrates the improvement in workflow efficiency posttraining in the form of a bar chart. The increase in efficiency is depicted clearly in the chart, highlighting how structured training can have a direct impact on reducing inefficiencies and streamlining clinical workflows.

Figure 1*Workflow Efficiency Improvement Posttraining*

Despite the project's success, there were some limitations. One challenge was the varying levels of participation in the training sessions. Some healthcare staff had scheduling conflicts, which limited their ability to attend the training, resulting in less-

than-full participation across all teams. This led to some inconsistency in the implementation of the PHQ-9 and GAD-7 tools, particularly in departments where fewer staff attended the training. Additionally, the integration of these tools into the electronic health record system posed technical challenges. In some cases, the tools were not fully embedded into the system, which created additional barriers for staff in terms of ease of use. These limitations impacted the full implementation of the tools across all departments and somewhat reduced the project's scope.

Nevertheless, the results of this project have broad implications beyond the local healthcare setting. The success of this initiative in improving staff engagement, tool adoption, and workflow efficiency serves as a valuable model for other healthcare organizations. The project demonstrates that structured training programs can facilitate the adoption of EBPs, streamline clinical processes, and ultimately improve patient outcomes. By promoting early mental health screenings and increasing the use of validated tools, like PHQ-9 and GAD-7, healthcare organizations can better address mental health issues at an early stage, leading to more effective interventions and better overall patient care. Furthermore, the lessons learned from this project can be applied to other areas of clinical practice, contributing to the broader goal of enhancing healthcare delivery and promoting positive social change within the healthcare system.

Conclusions

This implementation of structured training on the PHQ-9 and GAD-7 mental health screening tools has had a significant positive impact on the project site organization. Posttraining evaluations revealed a notable increase in staff engagement, tool adoption, and workflow efficiency, all of which are crucial for enhancing the quality

of patient care. These results suggest that by equipping healthcare staff with the necessary training and support, organizations can enhance their clinical practices, streamline workflows, and ensure timely mental health screenings. Furthermore, the project has helped foster a culture of EBP within the organization, positioning it as a leader in integrating validated tools into daily clinical care.

To sustain and build upon these improvements, my further recommendations include expanding the training program to additional staff members, particularly those who were unable to attend the initial sessions. Integrating the PHQ-9 and GAD-7 tools more seamlessly into the electronic health record system would also improve their accessibility and usage, further enhancing workflow efficiency. Additionally, creating ongoing professional development opportunities to reinforce EBP adoption could help maintain momentum and ensure long-term success.

The implications of this project extend beyond the local organization. For nursing practice, the results underscore the importance of structured training programs in facilitating the adoption of EBPs, ultimately improving patient outcomes and the quality of care. From a broader perspective, this project contributes to positive social change by improving mental health care accessibility, promoting early interventions, and addressing disparities in mental health treatment. Moreover, the project highlights the role of nursing in fostering diversity, equity, and inclusion because providing evidence-based mental health screening tools helps ensure that all patients, regardless of their background, receive timely and appropriate care.

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Appendix A: PowerPoint Presentation on PHQ-9 and GAD-7 Training

TEACH Justice

Improving the Adoption of Evidence-Based Practices in Healthcare Settings Using PHQ-9 and GAD-7 Tools

Action Plan Review Meeting

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TEACH Justice

Introduction of Meeting Participants and Roles

- **Adebukola Aladesanmi (Student):** Responsible for project execution and presenting findings.
- **Victor Afelumo (Project Mentor):** Provides guidance and practical advice.
- **Dr. Cara Krulewitch (Faculty Advisor):** Ensures academic rigor and project alignment with DNP standards.
- **Healthcare Staff (Nurses, Physicians):** Primary users of the training and screening tools.

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Project

- **Gap in Practice or Problem:**
 - Ineffective implementation of evidence-based practices
 - Results in workflow inefficiencies and staff burden
 - Lack of a structured approach (e.g., i-PARIHS framework)
- **Purpose of the Project:**
 - Improve workflow efficiency and EBP adoption
 - Train staff on the PHQ-9 and GAD-7 screening tools
- **Project Question:**
 - "How does training healthcare staff on PHQ-9 and GAD-7 tools (compared to no structured training) impact workflow efficiency and the adoption of EBPs over 3 months?"
- **Type of Project:**
 - Staff Education and Quality Improvement (QI) initiative
- **Alignment to Project Question:**
 - Training on PHQ-9 and GAD-7 aligns with the project goal to improve workflow and EBP adoption.



Phase I Brief Summary

- **Organization Readiness:**
 - Leadership support from the project mentor and site leaders.
 - Resources and approval secured for the project.
 - Staff readiness identified for the upcoming training.
- **Stakeholder Analysis:**
 - Key stakeholders: Healthcare staff, site leaders, and project mentor.
 - Engaged in project planning and ensuring alignment with organizational goals.
 - Regular feedback loops and updates planned.
- **SWOT Analysis:**
 - Strengths: Experienced team, leadership support, validated screening tools.
 - Weaknesses: Staff resistance, resource constraints, time limitations.
 - Opportunities: Expand EBPs, improve staff development, enhance care quality.
 - Threats: High turnover, competition, financial constraints.



Brief Summary of Evidence

- Internal facilitation improves EBP adoption and staff engagement.
- Training programs based on i-PARIHS framework show positive results in healthcare settings.
- Key Studies:
 - Tucker et al. (2022) & Seers et al. (2018): Structured facilitation enhances EBP competencies.
 - Kim & Jeong (2024) & Farokhzadian et al. (2021): Improved EBP readiness and staff competency through training.
 - Royer et al. (2024) & Rudman et al. (2024): Leadership involvement is essential for EBP integration.
 - Karim et al. (2024): Nursing frameworks promote EBP sustainability.
- Overall Quality of Evidence:
 - Positive impact on EBP adoption and workflow efficiency through structured facilitation and leadership support.



Phase 2 Planning

Project Implementation Overview

- **Program Objectives:**
 - Train healthcare staff on PHQ-9 and GAD-7 tools.
 - Improve workflow efficiency and EBP adoption in clinical practice.
 - Evaluate the success of the training program in improving care delivery.
- **Participants:**
 - Healthcare staff including nurses and physicians involved in the training and adoption of tools.
- **Evaluation Method(s):**
 - Pre- and post-surveys to measure staff engagement and EBP adoption.
 - Workflow assessments to track efficiency improvements.
 - Staff feedback and performance data to assess the impact of training.



Materials and Delivery Method(s)

Materials:

- Training manuals for PHQ-9 and GAD-7 tools.
- PowerPoint presentations for staff education.
- Online training modules for remote access.
- Survey tools for pre- and post-training assessments.

Delivery Method(s):

- In-person workshops for hands-on training.
- Online training modules for flexibility.
- Interactive sessions with case studies and role-playing.
- Follow-up sessions to reinforce learning and assess progress.

Action Plan Summary

Key Actions:

- Finalize training materials and schedule training sessions.
- Implement training for healthcare staff on PHQ-9 and GAD-7 tools.
- Evaluate staff adoption of the tools and assess workflow efficiency.
- Monitor post-training performance and feedback for continuous improvement.

Timeline

Task	Start Date	End Date	Status
Finalize training materials	10/21/2025	11/05/2025	In Progress
Schedule training sessions	11/06/2025	11/20/2025	In Progress
Implement training on PHQ-9 and GAD-7	11/21/2025	01/15/2026	Planned
Evaluate staff adoption of tools	01/16/2026	02/28/2026	Planned
Monitor post-training performance	03/01/2026	03/31/2026	Planned

Next Steps

- ❖ Complete follow-up evaluations with staff to assess training effectiveness.
- ❖ Collect post-training feedback to identify areas for improvement.
- ❖ Monitor the adoption rates of the PHQ-9 and GAD-7 tools over the next 3 months.
- ❖ Refine workflow processes based on feedback and adoption outcomes.
- ❖ Prepare final project report including analysis of workflow improvements and EBP adoption.
- ❖ Discuss findings with leadership and healthcare staff for sustainability of the project.

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Thank You

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Appendix B: Pre-/Posttest Anonymous Questionnaire

Pre/Post-Test Questions for Screening Tool Training

This document contains the Pre/Post-Test Questions designed to assess staff knowledge on the use of PHQ-9 and GAD-7 screening tools before and after the training. The pre-test evaluates baseline knowledge, while the post-test assesses knowledge gained from the training session.

1. What is the purpose of the PHQ-9 screening tool?
 - (Pre-test question: baseline knowledge of PHQ-9)
2. How do you interpret a score of 10 on the PHQ-9?
 - (Pre-test question: baseline knowledge of interpreting PHQ-9 scores)
3. Why is it important to use validated screening tools like PHQ-9 and GAD-7 in clinical settings?
 - (Pre-test question: understanding the significance of using these tools in clinical practice)
4. Describe the process of administering the PHQ-9 screening tool to a patient.
 - (Post-test question: knowledge gained on the practical application of PHQ-9)
5. How do you score and interpret a GAD-7 screening tool?
 - (Post-test question: understanding how to score and interpret the GAD-7)
6. How would you integrate the use of PHQ-9 into a clinical workflow for early detection of depression?
 - (Post-test question: applying PHQ-9 in clinical practice after training)