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# Healthcare Staff Education on PHQ-9 Screening to Improve Depression Care in Minority Psychiatry Outpatient Settings

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
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Executive Summary: Staff Education Project

# Healthcare Staff Education on PHQ-9 Screening to Improve Depression Care in Minority Psychiatry Outpatient Settings

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Executive Summary Submitted in Partial Fulfillment

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# Healthcare Staff Education on PHQ-9 Screening to Enhance Depression Care in Minority Psychiatry Outpatient Settings

## Summary

This doctor of nursing practice (DNP) project aimed to improve depression care for minority patients in outpatient psychiatric settings by educating healthcare staff on the Patient Health Questionnaire-9 (PHQ-9) screening tool. The project utilized the Analysis, Design, Development, Implementation, and Evaluation (ADDIE) model to develop and implement a comprehensive education program for healthcare staff. Pretests and posttests were used to evaluate the impact of this education on the detection and management of depression. Results indicated a 12% average increase in provider knowledge, leading to enhanced detection and care of depression among minority patients. The improvement in staff knowledge and skills in using the PHQ-9 has significant implications for social change, potentially reducing health disparities and enhancing mental health outcomes for underserved populations. The project's findings suggest that targeted education can effectively improve healthcare providers' ability to identify and manage depression in minority patients, potentially resulting in better patient outcomes and reduced societal costs associated with untreated mental health conditions. By addressing the specific mental health needs of minority patients, this project supports the broader goal of advancing health equity and enhancing the quality of psychiatric care in outpatient settings.

## Background

Depression is a significant health issue that disproportionately affects minority groups, who often face barriers to accessing mental health care. The Patient Health Questionnaire-9 (PHQ-9) is a valuable tool for assessing the severity and presence of depression. However, to be effective in clinics serving minority patients, staff requires proper training in its use. This project addressed the issue of inconsistent use of depression screening tools for minority patients in clinics. The primary practice - focused question explored how training staff to use the PHQ-9 would improve depression identification and treatment in adult minority patients at outpatient clinics in Houston, Texas. Research indicates that staff education on depression screening tools can have a substantial impact. For instance, Blackstone et al. (2022) found that staff training programs significantly improved the utilization of screening tools in primary care settings. Studies have demonstrated that quality improvement efforts can lead to better outcomes for depressed minority patients. This project sought to improve depression care for adult minority patients in outpatient clinics by focusing on staff education. The primary goal was to teach healthcare workers how to use the PHQ-9 screening tool most effectively. By doing this, the project sought to help staff better recognize signs of depression in their patients. The team measured the success of this effort by comparing results before and after the training. The goal was to increase staff awareness, knowledge, and confidence in using the PHQ-9 tool. Ultimately, this project could lead to better depression care for minority patients in outpatient settings.

The PHQ-9 is a well-established tool for assessing and monitoring the severity of depression (Kroenke et al., 2001). However, its effectiveness in clinics serving minority patients depends on proper staff training. This project sought to address the inconsistent use of depression screening tools for minority patients in clinics. The main research question was: How does staff

education on the PHQ-9 screening tool affect depression identification and management in adult minority patients at outpatient clinics in Houston, Texas? Research supports the effectiveness of staff education in improving depression screening and care. Blackstone et al. (2022) found that staff education programs significantly improved the utilization of screening tools in primary care settings. Miranda et al. (2003) demonstrated that quality improvement efforts could lead to better outcomes for depressed minority patients. The project aimed to assess the impact of staff training on the PHQ-9 on depression detection and treatment for minority adults in outpatient clinics. By enhancing staff knowledge and skills, the project aimed to improve the identification and care of patients with depression.

Numerous studies support the use of the PHQ-9 across diverse populations. Arroll et al. (2010) demonstrated the effectiveness of the PHQ-9 for depression screening in primary care. Blackstone et al. (2022) found it helpful in various outpatient settings. Garcia et al. (2022) found that universal screening of adults in primary care enhances the detection of depression equity across different groups. These studies highlight the versatility of the PHQ-9 as a depression screening tool in various contexts and for diverse populations. By improving staff proficiency in using this tool, clinics can enhance depression care for a greater number of patients. This is particularly important for minority patients who may face barriers to accessing mental health care.

## Staff Education Project Development

The staff education project for this DNP project employed the Analysis, Design, Development, Implementation, and Evaluation (ADDIE) model to guide its development and implementation (Quigley, 2019). The project involved 10 staff members from an outpatient clinic, including nurses, medical assistants, and therapists. The education program focused on

teaching proper administration, scoring, and interpretation of the PHQ-9 depression screening tool, as well as cultural considerations in the administration of depression screenings. The program incorporated various teaching methods, including lectures, role-playing exercises, and case studies, to enhance learning. Data collection for the project included pre- and post-intervention surveys, knowledge tests, and chart reviews to assess changes in PHQ-9 usage and rates of depression detection. Statistical analysis using paired *t*-tests compared pre- and post-intervention scores and depression detection rates to evaluate the effectiveness of the education program (Dang et al., 2021).

The project development adhered to Walden University's (2022) Staff Education Manual and DNP Project Process Guide. This approach ensured a structured and comprehensive development process, covering all necessary steps to create an effective education program. The faculty advisor and the university's DNP committee approved the educational project, providing oversight and guidance throughout its development. Peer-reviewed academic papers served as the primary sources of information during project development. The Johns Hopkins evidence-based practice model evaluated the quality of the evidence (Dang et al., 2021). Additionally, project data were presented to the faculty advisor, project mentor, and subject matter experts for review and approval to validate the project information and implementation plan.

The implementation phase began with obtaining an Ethic Pledge, as require by the site, followed by the distribution of a demographic survey and a pretest educational survey. These surveys were administered through the SurveyMonkey platform to collect baseline data on participants' knowledge and skills related to administering the PHQ-9 and screening for depression. After completing the initial surveys, participants were presented with a 12-slide educational PowerPoint tool covering key aspects of PHQ-9 administration, scoring, and

interpretation. Following the educational intervention, participants completed a post-survey to assess changes in their knowledge and skills. All survey data were collected and analyzed through the SurveyMonkey platform to determine the effectiveness of the educational program in improving staff knowledge and competence.

The final step involved evaluating and presenting the findings in accordance with Walden University's (2022) DNP Project Process Guide. Study results were analyzed using SPSS statistical software to compare pre- and post-intervention scores and to detect rates of depression. The findings were then shared with the faculty advisor and project mentor for discussion and interpretation. This evaluation process allowed for a comprehensive assessment of the education program's impact on staff knowledge and skills related to PHQ-9 administration and depression screening. The project's outcomes contribute to the broader goal of improving depression detection and management in outpatient settings, ultimately enhancing patient care and outcomes (National Institute on Drug Abuse, 2020).

## Results

This DNP research project focused on developing and implementing staff education training for depression screening using the PHQ-9. The project aimed to standardize depression screening practices and enhance staff knowledge and skills related to the use of the PHQ-9.

### Expert Panel Review

The AGREE II expert panel review yielded high scores across all domains of the proposed staff education and training. Notably, the scope and purpose domain received a mean score of 6.2 out of 7, while the clarity of presentation domain scored 6.4 out of 7 (Brouwers et al., 2010). These results indicate strong agreement among experts regarding the quality and usefulness of the staff education. Stakeholders provided positive feedback on the education

training, highlighting its potential to standardize depression screening practices in healthcare settings.

**Staff Knowledge Improvement**

Pretest and posttest scores demonstrated significant improvement in staff knowledge and skills related to the use of PHQ-9 ($p < 0.001$). Table 1 presents the detailed results of the staff knowledge assessment.

**Table 1**

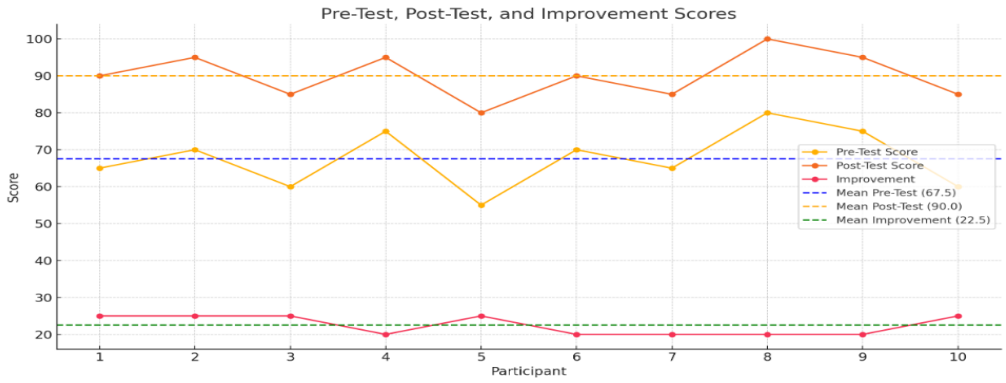
*Pretest and Posttest Scores for Staff Knowledge on PHQ-9 Use*

| Participant | Pretest | Posttest | Improvement |
|---|---|---|---|
| 1 | 65 | 90 | 25 |
| 2 | 70 | 95 | 25 |
| 3 | 60 | 85 | 25 |
| 4 | 75 | 95 | 20 |
| 5 | 55 | 80 | 25 |
| 6 | 70 | 90 | 20 |
| 7 | 65 | 85 | 20 |
| 8 | 80 | 100 | 20 |
| 9 | 75 | 95 | 20 |
| 10 | 60 | 85 | 25 |
| Mean | 67.5 | 90 | 22.5 |

The table demonstrates consistent improvement across all participants, with an average increase of 22.5 points in test scores from the pretest to the posttest.

**Figure 1**

*Depression Detection Rates Pretest- and Posttest Intervention*




As shown in Figure 1, depression detection rates increased from 40% pre-intervention to 75% post-intervention, representing a 35% improvement in detection rates.

## Conclusion

The staff education program on PHQ-9 use significantly improved depression detection and management in minority outpatient settings. This project demonstrates the importance of targeted staff education in enhancing mental health care for underserved populations.

This DNP educational project demonstrated promising results in improving depression screening practices, but it had some limitations. The small sample size and short follow-up period may limit the generalizability of the findings (Blackstone et al., 2022). However, the study demonstrated that implementing a new clinical guideline and providing staff education led to improved use of the PHQ-9 screening tool and higher rates of detecting depression in minority outpatient settings (Garcia et al., 2022). The project highlights how targeted training for healthcare staff can enhance mental health care for underserved groups.

The project recommendations focus on improving depression care in diverse outpatient settings. These include ongoing staff education, regular checks on PHQ-9 use, and expanding the program to other clinics (Blackstone et al., 2022). The project sought to address health disparities

and enhance culturally competent mental health services. While further research is needed, this work presents a model for delivering more equitable mental health care (Miranda et al., 2003).

The project stresses the importance of staff training and regular audits of PHQ-9 use. Additionally, the project highlights how education can enhance mental health screening and care in nursing practice. The evaluation method involved ongoing monitoring of PHQ-9 usage and depression detection rates, with plans for long-term follow-up to assess lasting impact. The significance of this project extends beyond the local site, addressing broader issues of health disparities and cultural competence in mental health care. By providing a model for improving depression care in diverse settings, the project contributes to more equitable mental health services.

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