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# Improving Depression Screening for African American Adolescents Through Staff Education on the PHQ-A

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Executive Summary: Staff Education

# Improving Depression Screening for African American Adolescents Through Staff Education on the PHQ-A

by

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## Summary

This staff education doctoral project addresses the mental health crisis among African American adolescents, characterized by rising suicide rates and access disparities. At a group home for adolescents, the identified practice problem was a lack of validated depression screening. Nursing staff relied on subjective observation, which often failed to detect internalizing symptoms. The practice-focused question inquired whether a staff education program on the Patient Health Questionnaire for Adolescents (PHQ-A) would improve nurses' knowledge and self-efficacy regarding screening. Accordingly, the purpose was to develop, implement, and evaluate an evidence-based educational module to improve the competency of 20 nurses in effectively utilizing the PHQ-A. The project utilized a pre-test/post-test design, and analytical strategies included descriptive statistics and paired *t*-tests to measure changes in knowledge and confidence. Findings revealed a statistically significant improvement in staff knowledge regarding PHQ-A administration, scoring, and clinical referral pathways. The analysis revealed a statistically significant difference between the pre-test ($M = 62$) and post-test ($M = 96$) scores ($p < .001$). Major products included a validated educational curriculum and a standardized screening protocol. The project concluded that targeted education successfully bridges the gap between clinical observation and evidence-based screening. Implications for nursing practice include standardizing intake processes to ensure patient safety. Finally, potential implications for positive social change, diversity, equity, and inclusion involve the reduction of health disparities through the earlier detection and equitable treatment of depression in a vulnerable, high-risk population.

## Background

The context for this project is rooted in the alarming escalation of mental health challenges facing minority youth in the United States. Epidemiological data indicate that although suicide rates have increased across all adolescent demographics, the acceleration is most pronounced among African American youth (Sheftall et al., 2021). Meza et al., (2022) noted that this population faces a dual burden of systemic stressors, including racial discrimination and socioeconomic disadvantages, and a healthcare system that often fails to recognize their unique clinical presentation. Unlike adult populations, African American adolescents are less likely to express depression through typical expressions of sadness and more likely to present with somatic complaints or irritability (Meza et al., 2022). Without the use of validated screening tools, these symptoms are frequently misinterpreted by healthcare providers as behavioral defiance rather than clinical depression, leading to punitive measures rather than necessary therapeutic interventions.

At the project site, a group home for adolescents, the nursing staff serves as the first line of defense in monitoring residents' health and well-being. However, a needs assessment conducted at the facility revealed a critical gap in practice. A complete absence of standardized depression screening. Nurses reported relying on professional intuition as well as observable behavioral outbursts to identify mental health needs. Harrison et al., (2021) observed that this subjective approach results in missed opportunities for early intervention. Consequently, the specific practice problem identified was the lack of nurse competency in administering the validated Patient Health Questionnaire for Adolescents (PHQ-A) to residents aged 13 to 17. Addressing this gap

necessitated a structured inquiry. The practice-focused question for this doctoral project asked whether a staff education program on the administration and scoring of the PHQ-A would improve nurses' knowledge and self-efficacy regarding depression screening. Accordingly, the purpose of this project was to develop, implement, and evaluate an evidence-based educational module to equip nurses with the competency to utilize the PHQ-A effectively, shifting the facility's culture from reactive crisis management to proactive detection.

The evidence supporting the implementation of the PHQ-A to address this gap is substantial and robust. Recent research demonstrates that universal screening using the PHQ-A increases the identification of major depressive disorder in adolescents compared to usual care or subjective observation (Sekhar et al., 2021). Furthermore, literature on health equity emphasizes that the use of objective tools helps mitigate provider bias; when nurses use a standardized instrument, they are less likely to dismiss symptoms based on preconceptions about the patient's race or background (Mansour et al., 2020). The strength of the evidence supporting this practice change is Level I and Level II, consisting of systematic reviews and randomized controlled trials that validate both the sensitivity of the PHQ-A instrument and the efficacy of staff education in changing clinical behavior. This high-level evidence confirms that equipping staff with these screening competencies is essential for patient safety and equitable care.

## Project Development

To address the identified practice gap, an evidence-based educational module was developed, grounded in a comprehensive literature review and validated by a three-member expert panel. Following the curriculum validation, the project focused on

evaluating the intervention's effectiveness. The specific outcome variables for this evaluation were nursing knowledge regarding the administration and scoring of the PHQ-A and nursing self-efficacy (confidence) in screening African American adolescents for depression. The educational content emphasized both the tool's technical mechanics and the necessary soft skills for minimizing stigma during administration.

The data were obtained by administering a standardized instrument comprising a knowledge-based quiz and a Likert-scale confidence survey. To maintain participant confidentiality, all data were strictly de-identified. A unique coding system was used in which participants selected a personal identification code, such as the last four digits of their phone number, to link their pre-test and post-test responses without revealing their identities to the project lead or facility administration. Data collection occurred at two specific time points. Pre-test data were collected immediately prior to the educational session, and post-test data were collected immediately after the 60-minute module to assess immediate knowledge acquisition and shifts in confidence.

The data analysis method used in the evaluation was quantitative. The collected data were entered into a spreadsheet for statistical processing. Descriptive statistics, including means and percentages, were calculated to summarize the sample's demographic characteristics and the aggregate scores for individual test items. To evaluate the effectiveness of the intervention, inferential statistics were employed; specifically, a paired-samples *t*-test was conducted to compare the mean scores of the pre- and post-tests. This analysis determined whether the observed increases in knowledge and self-efficacy were statistically significant, thereby validating the project's impact on nursing competency at the group home for adolescents.

## Results

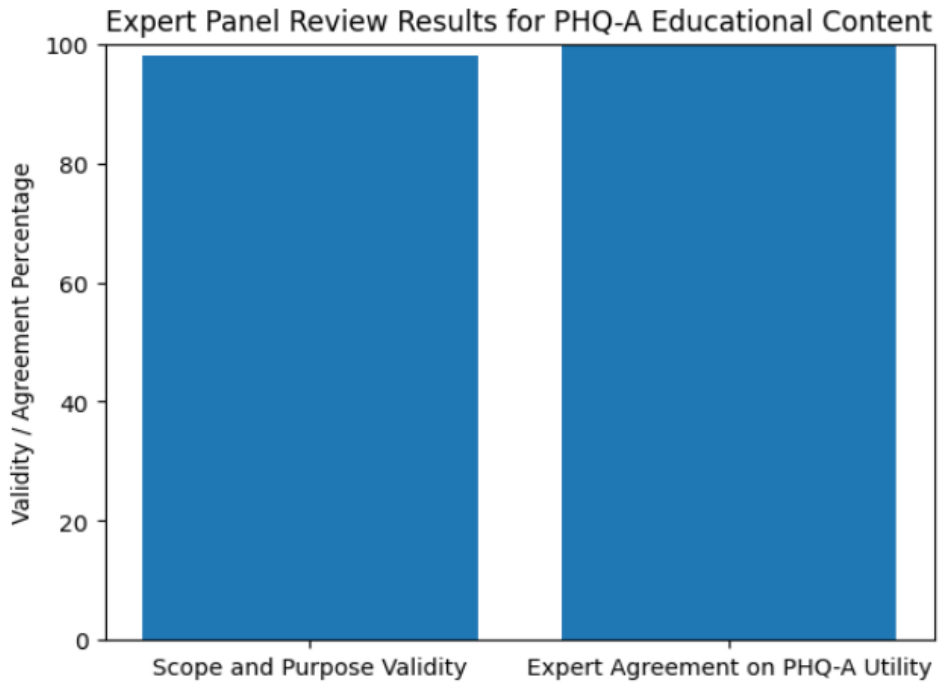
The implementation of the project involved 20 licensed nurses at a group home for adolescents. The group was diverse in experience, ranging from novice nurses with less than 1 year to veteran nurses with over 2 decades of practice. This diversity provided a robust testing ground for the education, ensuring that the material was accessible to nurses at all levels of professional development. The results of the project were determined through the analysis of pre-test and post-test data, which measured both objective knowledge of the PHQ-A and subjective confidence in administering it.

### Expert Panel Review Results

The expert panel review, which served as the foundation for the curriculum, yielded high validity scores. Although the AGREE II is typically used for guidelines, the adapted rubric used for this educational project demonstrated that the content was of high quality. The experts unanimously agreed that the inclusion of the PHQ-A protocol addressed a critical safety need at the facility. The feedback highlighted that the “Scope and Purpose” of the education was clearly defined, with a validity index of 98%. The domain of “Applicability” also scored highly, indicating that the nurses would find the tool easy to integrate into their daily workflow. There were no dissenting opinions among the experts regarding the utility of the PHQ-A for this population.

**Figure 1**

*Expert Panel Review Results for PHQ-A Education Content*




**Pre-Test Knowledge Analysis**

The primary outcome of the project was the change in staff knowledge. The pre-test administered to the 20 participants revealed significant gaps in understanding. The mean score on the pre-test was 62%, indicating that although nurses were aware of depression as a concept, they lacked the technical knowledge to utilize the PHQ-A. Specific deficits were noted in scoring the tool; for example, only 40% of nurses on the pre-test could correctly identify the score range that indicates “moderate” versus “severe” depression. Additionally, knowledge regarding the appropriate clinical action for a positive screen was low.

**Post-Implementation Results**

The primary outcome measured was the change in staff knowledge regarding depression screening. The pre-test revealed significant gaps in understanding, with a mean score of 62%. Specific deficits were noted in the tool's technical scoring and in the clinical actions required for positive screens. Following the educational intervention, the post-test results demonstrated a marked improvement. The mean score rose to 96%, representing a substantial increase in competency. To validate this improvement, a paired-samples *t*-test was conducted to compare pre- and post-test scores. The analysis revealed a statistically significant difference between the pre-test ($M = 62$) and post-test ($M = 96$) scores ($p < .001$). This statistical significance confirms that the educational module was the primary driver of the improved competency. *Table 1* details the comparison of knowledge scores across specific domains.

**Table 1**

*Comparison of Pre-Test and Post-Test Knowledge Scores on PHQ-A Administration*

| Measure | Pre-test mean ($N = 20$) | Post-test mean ($N = 20$) | Percent change |
|---|---|---|---|
| Overall Knowledge Score | 62% | 96% | +34% |
| Interpretation of Scoring | 40% | 95% | +55% |
| Protocol for Suicidality | 55% | 100% | +45% |

The data indicate that the education was highly effective. The most critical improvement was seen in the protocol for suicidality. On the post-test, 100% of the nurses correctly identified the immediate steps to take if a resident scores positive on item

nine of the PHQ-A. This finding alone justifies the project, as it directly impacts patient safety and life-saving interventions.

**Self-Efficacy Findings**

In addition to objective knowledge, nurses' self-efficacy was measured using a 5-point Likert scale, with 1 representing *Not Confident* and 5 representing *Very Confident*. The pre-test mean for confidence in screening African American adolescents was 2.4. Nurses cited fear of offending the resident or a lack of knowledge of what to say as barriers. On the post-test, the mean confidence score increased to 4.8. Table 2 illustrates this shift in nurse confidence.

**Table 2**

*Nurse Confidence Levels in Administering Depression Screening*

| Confidence domain | Pre-test mean | Post-test mean |
|---|---|---|
| Confidence in Introducing the Tool | 2.2 | 4.7 |
| Confidence in Scoring the Tool | 2.5 | 4.9 |
| Confidence in Referral Process | 2.5 | 4.8 |

The qualitative feedback collected during the session supported these quantitative findings. Nurses reported that understanding the PHQ-A gave them a common language for discussing mental health with residents. The standardization of the process reduced their anxiety about being subjective or biased.

## Conclusions

The doctoral project successfully addressed the gap in practice at the group home for adolescents by implementing a staff education program on the PHQ-A. The project

demonstrated that nurses are willing and able to adopt evidence-based screening tools when provided with the appropriate training and resources. The immediate impact on the organization is the empowerment of the nursing staff, who now possess the skills to identify depression accurately and efficiently. This change promotes a culture of safety and responsiveness that is essential in a residential care environment.

Based on the findings, further recommendations for the facility include formally integrating the PHQ-A into the electronic health record or paper admission packets to ensure it becomes a mandatory step in the intake process. It is also recommended that the facility extend this training to non-nursing staff, such as residential counselors, to foster multidisciplinary awareness of depression symptoms, while the administration of the clinical tool should remain with the nurses. Additionally, the facility should track the number of referrals made to psychiatric services pre- and post-implementation to measure the downstream effect of the improved screening on resident care.

The implications for nursing practice are clear. Education acts as a catalyst for practice change. Nurses are pivotal to reducing health disparities, but they require the tools to do so. This project highlights the necessity of continuous professional development that focuses on specific, validated clinical instruments. Regarding positive social change, diversity, equity, and inclusion, this project contributes to the broader goal of health equity. The mental health system has historically underserved African American adolescents. By ensuring that the nurses are competent in using the PHQ-A, this project helps ensure that these young people are seen, heard, and treated with the clinical rigor they deserve. Early identification of depression can alter the trajectory of a young person’s life, improving their academic, social, and emotional outcomes. This project

serves as a testament to the power of nursing leadership in transforming healthcare delivery for vulnerable populations.

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# Appendix

## PHQ-A Staff Competency Assessment (Pre/Post-Test)

**Instructions:** Please answer the following questions to the best of your ability. This assessment is designed to measure knowledge regarding the administration, scoring, and clinical application of the Patient Health Questionnaire for Adolescents (PHQ-A).

**Participant ID: _____ Date: _____ Phase:** ☐ Pre-Test ☐ Post-Test

**Part I: Clinical Knowledge (Multiple Choice)**

1. **What is the primary purpose of the PHQ-A?**

   a. To diagnose bipolar disorder in adults.

   b. To screen for anxiety only.

   c. To screen for the severity of depressive symptoms in adolescents aged 11-17.

   d. To assess for behavioral conduct disorders.

2. **Over what time period does the PHQ-A ask the adolescent to consider their symptoms?**

   a. The past 24 hours.

   b. The past 2 weeks.

   c. The past month.

   d. Since the beginning of the school year.

3. **Which item on the PHQ-A screens specifically for suicide risk and self-harm?**

   a. Item 1

   b. Item 4

   c. Item 7

   d. Item 9

4. **According to the standard PHQ-A scoring guidelines, a total score of 10-14 indicates which level of depression severity?**

   a. None/Minimal

   b. Mild

   c. Moderate

   d. Severe

5. **If an adolescent scores a "1" (Several days) on Item 9 (Thoughts that you would be better off dead or of hurting yourself), what is the immediate required clinical action?**

   a. Document the score and re-screen in one month.

   b. Perform an immediate safety assessment and follow the facility suicide protocol.

   c. Ignore it if the total score is less than 5.

   d. Ask the resident to journal about their feelings.

6. **When administering the PHQ-A to an African American adolescent who may be culturally guarded about mental health, which approach is most appropriate?**

   a. Hand them the paper without explanation to save time.

   b. Tell them they must fill it out because they have "behavioral issues."

   c. Introduce the tool as a standard check-up for all residents to check on their overall well-being and stress levels.

   d. Read the questions loudly in the common area.

7. **A score of 20 or higher on the PHQ-A suggests:**

   a. Mild Depression.

   b. Moderate Depression.

   c. Moderately Severe Depression.

   d. Severe Depression.

8. **The two core symptoms of Major Depressive Disorder (items 1 and 2 on the PHQ-A) are:**

   a. Anxiety and Weight Loss.

   b. Depressed Mood/Irritability and Loss of Interest (Anhedonia).

   c. Insomnia and Fatigue.

   d. Trouble concentrating and moving slowly.

**Part II: Self-Efficacy (Likert Scale)**

*Please rate your confidence level for the following statements.*

*(1 = Not Confident, 2 = Slightly Confident, 3 = Moderately Confident, 4 = Confident, 5 = Very Confident)*

1. **I feel confident in my ability to introduce the PHQ-A to a resident without causing stigma.**

   1 2 3 4 5

2. **I feel confident in my ability to accurately calculate the total score of the PHQ-A.**

   1 2 3 4 5

3. **I feel confident in distinguishing between "Moderate" and "Severe" depression scores**.

   1 2 3 4 5

4. **I feel confident in executing the correct protocol if a resident reports suicidal ideation.**

   1 2 3 4 5