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## Staff Education on Attention-Deficit/Hyperactivity Disorder Identification and Referral Using the Vanderbilt Assessment Scale

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# Walden University

College of Nursing

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Edith Nkeze

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the review committee have been made.

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Walden University  
2026

Executive Summary: Staff Education Project  
Staff Education on Attention-Deficit/Hyperactivity Disorder Identification and Referral  
Using the Vanderbilt Assessment Scale

by  
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MS, Walden University, 2024

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## Summary

The practice problem addressed in this Doctor of Nursing Practice project was the inconsistent identification of attention-deficit/hyperactivity disorder (ADHD) among adolescents in a group home setting. Despite the high prevalence of behavioral disorders in this population, nursing staff demonstrated limited competency regarding American Academy of Pediatrics guidelines and the utilization of the Vanderbilt Assessment Scale. The practice-focused question examined whether a staff education program would improve nurse knowledge, competence, and self-efficacy regarding ADHD identification and referral. The purpose was to develop and implement a validated educational module to standardize assessment. The project utilized a pre- and post-test descriptive design with a sample of 18 nurses. Analytical strategies employed descriptive statistics to quantify changes in knowledge acquisition and confidence levels. Findings revealed substantial improvements: knowledge of guideline-based treatment rose from 33% to 100%, and technical scoring accuracy increased from 22% to 94%. Additionally, mean self-efficacy scores for interpreting the Vanderbilt Scale rose from 1.8 to 4.8 on a 5-point scale. Major products included a validated curriculum and a facility-specific screening protocol. Recommendations include integrating these tools into new-hire orientation and into electronic health records. Implications for nursing practice include strengthening the nurse's role within interdisciplinary behavioral health teams to support coordinated, patient-centered care. Positive social change is promoted by ensuring equitable, evidence-based assessments for vulnerable youth, thereby addressing health disparities and fostering inclusion for adolescents in state care.

## **Background**

ADHD is a pervasive neurodevelopmental disorder in adolescents, yet it remains frequently misunderstood and underdiagnosed within residential care settings (Al-Beltagi et al., 2025). The context for this project was a group home facility serving adolescents aged 13 to 17. This specific population often presents with complex clinical histories characterized by trauma, placement instability and academic disruption (Drechsler et al., 2020). Elements in the background that necessitated a practice change included a heavy reliance on subjective behavioral observations by nursing staff rather than objective clinical data.

Prior to the intervention, nurses at the facility reported significant difficulty in distinguishing between symptoms of inattention, hyperactivity and anxiety. This lack of clarity often resulted in punitive measures for behaviors that were clinically driven. This local practice gap mirrors broader healthcare data, indicating that while youth in foster and group home care are prescribed psychotropic medications at rates higher than the general population, they often lack the rigorous diagnostic tracking required to optimize treatment outcomes (Hatzikiriakidis et al., 2025).

The project question inquired: What is the effect of a staff education program on group home nurses' knowledge, competence, and self-efficacy in identifying symptoms of ADHD and initiating timely referrals? The purpose of the project was to address the identified gap by developing, validating, and implementing an educational module to align local practice with the gold standard of care. The American Academy of Pediatrics (AAP) clinical practice guidelines emphasize that diagnosing ADHD in adolescents requires data collection from multiple sources, particularly caregivers (Wolraich et al.,

2020). In a residential setting, the nurse functions as the primary medical caregiver.

Therefore, the project sought to empower these nurses to utilize the Vanderbilt Assessment Scale, a validated tool recommended by the AAP for documenting symptom severity and subtype.

The evidence supporting this practice change is robust. Research indicates that the utilization of standardized tools, such as the Vanderbilt Assessment Scale, improves diagnostic accuracy and reduces the time required to implement effective treatment (Alotaibi et al., 2025). Additionally, literature supports the premise that educational interventions targeting nursing self-efficacy are effective in reducing stigma and enhancing interdisciplinary communication regarding behavioral health (McKenna et al., 2025). The strength of the evidence supporting the implementation of the Vanderbilt Assessment Scale and the efficacy of staff education is classified as Level I and Level II, respectively, based on systematic reviews and randomized controlled trials. This strong evidentiary base justified implementing the project to standardize care and address the competency gap at the project site.

### **Project Development**

The evaluation of the doctoral project focused on two primary outcome variables: nursing knowledge and professional self-efficacy. The knowledge variable was operationalized as the accuracy of responses regarding the AAP guidelines, the specific scoring criteria for ADHD subtypes using the Vanderbilt Assessment Scale, and the appropriate referral pathways. The self-efficacy variable was measured as the self-reported level of confidence in performing clinical tasks, including distinguishing

neurodevelopmental symptoms from behavioral issues, scoring the assessment tool, and communicating findings to providers.

To obtain de-identified data, a paired pre-test and post-test design was used with a sample of 18 nurses at the group home for adolescents. To ensure participant anonymity while allowing for the tracking of individual progress, a unique identifier coding system was implemented. Participants generated a code using non-identifying personal elements, including the first two letters of their mother's maiden name and their birth month. This method ensured that the data could be matched for analysis without revealing the identity of the specific nurse or linking performance to personnel files. No protected health information regarding the residents was collected for this portion of the project, as the focus was exclusively on staff competency.

The data collection timeline was structured to measure the intervention's immediate impact. The pre-implementation data were collected immediately prior to the start of the educational session to establish a baseline of existing knowledge and confidence. The post-evaluation data were collected immediately following the conclusion of the educational module. The data analysis method used in the evaluation involved descriptive statistics. Data from the surveys were aggregated, and percentage accuracy was calculated for knowledge-based questions to demonstrate the shift in competency. For the self-efficacy items, which were rated on a 5-point Likert scale, mean scores were calculated to quantify the change in confidence levels between the pre- and post-intervention phases.

## **Results**

The results of the doctoral project demonstrated the successful validation of the educational materials and an improvement in nursing competency. The analysis is divided into the results of the expert panel review and the results of the pre- and post-test administered to the 18 nursing participants.

### **AGREE II Expert Panel Review**

The expert panel evaluation using the AGREE II tool yielded high validity scores, confirming the quality of the project materials. The 23 domains of the AGREE II tool were scored using a 7-point Likert Scale. Domain 1, Scope and Purpose, received a score of 96%. The reviewers noted that the project focuses on the age group 13 to 17 years and that the residential setting was clearly articulated. Domain 2, Stakeholder Involvement, scored 92%, reflecting the inclusion of nursing staff feedback in the protocol design. Domain 3, Rigor of Development, received a score of 95%, indicating strong adherence to the contemporary guidelines. Domain 4, Clarity of Presentation, scored 94%. The panel praised the decision support flowcharts included in the training. Domain 5, Applicability, scored 90%. Reviewers suggested adding a quick reference guide for scoring the Vanderbilt forms, which was subsequently created. Domain 6, Editorial Independence, scored 100%, confirming no conflicts of interest. Overall, the high scores across all domains indicated that the proposed clinical practice guideline and education were of high quality and appropriate for implementation.

### **Pre-Test and Post-Test Analysis**

The primary outcome of the project was the change in staff knowledge and self-efficacy. The pre-test administered to the 18 participants ( $N = 18$ ) revealed gaps in

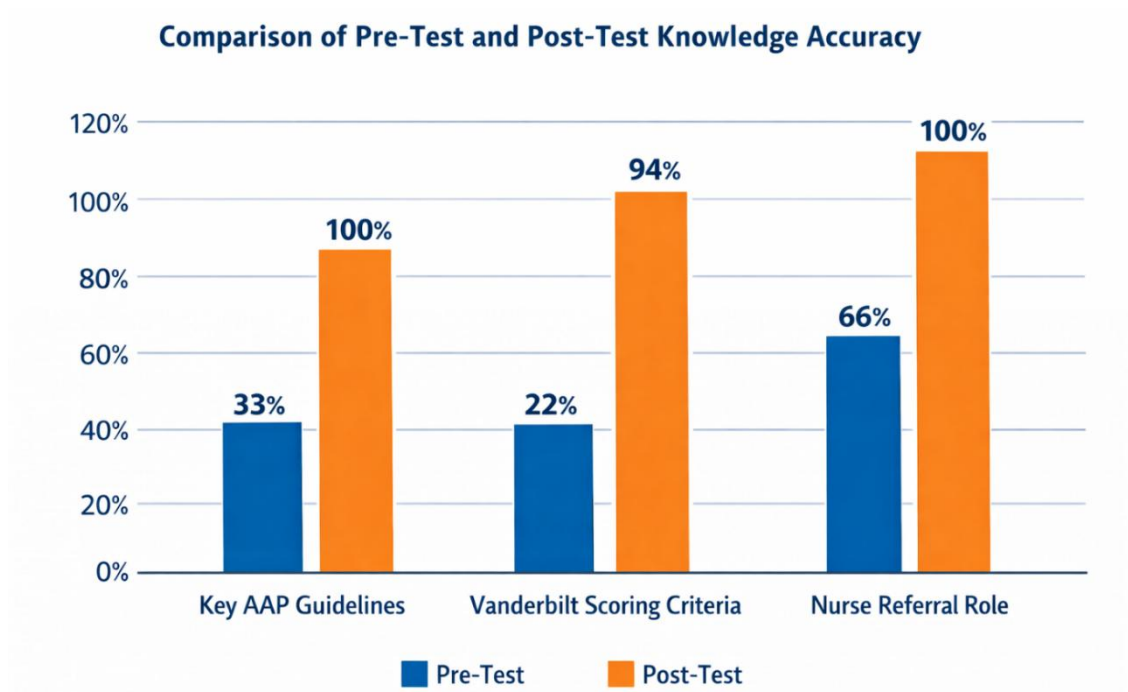
understanding regarding ADHD identification. The mean score on the knowledge portion of the pre-test was substantially lower than the post-test, indicating that although nurses were aware of ADHD as a general concept, they lacked the technical knowledge to utilize the Vanderbilt Assessment Scale effectively.

The knowledge assessment component consisted of three critical questions derived from the AAP guidelines. Question 1 assessed knowledge of the key guideline for teen ADHD treatment. In the pre-test, only 33% of nurses correctly identified “combined treatment” as the standard. Post intervention, this rose to 100%. Question 2 assessed the technical scoring criteria for the Vanderbilt Combined subtype. Pre-test data showed that only 22% of nurses understood the requirement for six or more symptoms of inattention and hyperactivity. In the post-test, 94% answered correctly. Question 3 addressed the nurse referral role, with pre-test accuracy at 66%, rising to 100% in the post-test.

Figure 1 illustrates the comparative improvement in knowledge across these three domains. The visual representation demonstrates a steep upward trajectory in technical competency following the educational intervention.

**Figure 1**

*Comparison of Pre-Test and Post-Test Knowledge Accuracy*

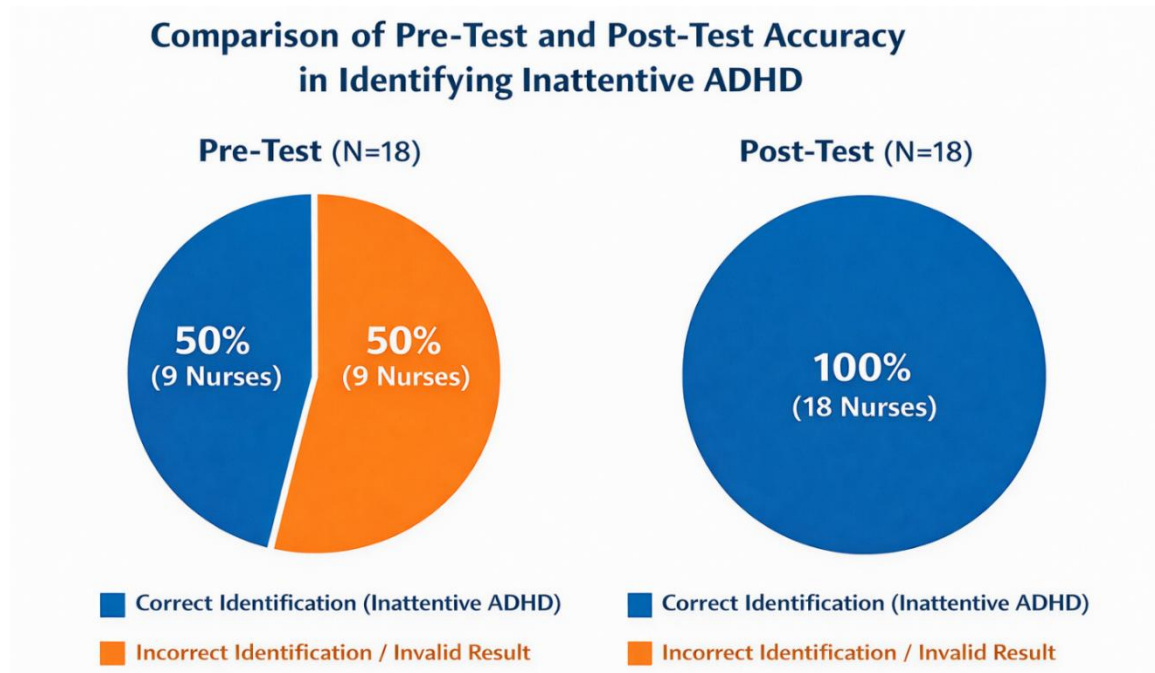


A specific focus of the education was the ability to differentiate between ADHD subtypes, which is often a source of confusion in clinical practice. The case scenario presented in the assessment described a resident with high inattention scores but low hyperactivity scores. In the pre-test, 50% of the nurses incorrectly identified the condition or declared the results invalid, whereas only 50% correctly identified it as inattentive ADHD. This finding highlighted a risk for missed diagnoses in adolescents who do not display disruptive behavior.

Figure 2 illustrates this specific knowledge gap and its resolution. The pre-test data reveal a split in understanding, whereas the post-test data show unanimous competency in identifying the Inattentive subtype.

**Figure 2**

*Case Scenario Analysis: Identification of Inattentive ADHD Subtype*



### **Self-Efficacy Findings**

In addition to knowledge, the project measured nurses' confidence using a 5-point Likert scale. The pre-test indicated low confidence in specific clinical tasks. For the item "I score/interpret Vanderbilt Scale," the pre-test mean was 1.8, indicating that most nurses felt Not Confident or only Slightly Confident. Post intervention, the mean score for this item rose to 4.8, indicating a high level of confidence. Similarly, confidence in discussing referrals with parents and providers increased from a mean of 2.9 to 4.7. The unanimous improvement in confidence suggests that the nurses feel empowered to function as advocates for the residents' mental health.

Table 1 depicts the shift in mean confidence scores across the three self-efficacy items. The data show that the education successfully moved the nursing staff from hesitancy to clinical readiness.

**Table 1**

*Change in Mean Confidence Scores (Scale 1-5)*

Confidence item	Pre-test mean	Post-test mean
Distinguish ADHD from Normal Behavior	2.4	4.6
Score/Interpret Vanderbilt Scale	1.8	4.8
Discuss Referral with Parents/MD	2.9	4.7

### **Conclusions**

The doctoral project implemented at the group home addressed a critical gap in the management of adolescent mental health. The findings confirm that a structured, evidence-based educational intervention improves both the clinical knowledge and the professional self-efficacy of group home nurses. The expert panel's review enhanced validation and ensured that the protocols taught were aligned with national standards of care. The immediate impact on the organization is a workforce that is better prepared to recognize the nuances of ADHD and anxiety and can distinguish these neurobiological conditions from behavioral choices or trauma responses.

Based on the success of this project, several recommendations are proposed for the organization. First, the educational module on the Vanderbilt Assessment Scale should be made a mandatory component of the orientation process for all new nursing hires. This ensures that the baseline of competency remains high even as staff turnover

occurs. Second, it is recommended that the facility integrate the Vanderbilt forms directly into the electronic health record system to facilitate easier data scoring and trending over time. Third, a policy should be drafted requiring an annual refresher course on pediatric mental health trends to keep staff current with evolving guidelines.

The implications for nursing practice extend beyond the walls of this specific facility. This project demonstrates that nurses in residential settings play a vital role in the interdisciplinary mental health team. By equipping them with valid assessment tools, the profession elevates the standard of care for non-hospitalized patients. Regarding positive social change, this project directly confronts the disparities faced by youth in state care. Adolescents in group homes are often marginalized, and their mental health needs are frequently overlooked or criminalized. By training nurses to see these children through a clinical rather than a custodial lens, the project fosters a culture of empathy, equity, and inclusion. This shift has the potential to alter the life trajectories of these young people by improving their academic potential and social integration. The evaluation method used provided clear and quantifiable evidence of success and serves as a model for future quality improvement initiatives within the organization.

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## Appendix

### ADHD Identification and Referral Knowledge Assessment (Pre- and Post-Test)

**Instructions:** Please complete the following assessment to the best of your ability. This tool is designed to measure knowledge regarding the American Academy of Pediatrics (AAP) guidelines and the use of the Vanderbilt Assessment Scale. Please create a unique identifier code (e.g., the first two letters of your mother's maiden name and your birth month) to ensure anonymity while allowing us to match your pre- and post-test scores.

**Unique ID:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Phase:**  Pre-Test  Post-Test

#### Part I: Knowledge Assessment

*Please circle the single best answer for each question.*

1. **What is the key American Academy of Pediatrics (AAP) guideline recommendation for the treatment of adolescents with ADHD?**
  - a. Medication management only
  - b. Behavioral therapy only
  - c. Combined treatment (Medication and Behavior Therapy)
  - d. No treatment needed; watchful waiting

2. **According to the Vanderbilt Assessment Scale scoring criteria, identifying the “Combined” ADHD subtype requires:**
  - a. 6 or more symptoms of inattention AND 6 or more symptoms of hyperactivity/impulsivity
  - b. 6 or more symptoms of inattention OR 6 or more symptoms of hyperactivity/impulsivity
  - c. 4 or more performance items scored as “problematic”
  - d. The presence of anxiety symptoms alongside inattention
3. **The group home nurse’s primary role in the ADHD referral process includes:**
  - a. Prescribing stimulant medication
  - b. Diagnosing the specific ADHD subtype independently
  - c. Communicating objective findings (screening data) to the provider
  - d. Conducting family therapy sessions

## **Part II: Case Scenario Application**

**Scenario:** You administer a Vanderbilt Assessment Scale to a 15-year-old resident. The scoring reveals **seven symptoms** in the Inattention domain and **two symptoms** in the Hyperactivity/Impulsivity domain. Based on this data, how would you classify these findings and proceed?

- a) Combined ADHD; refer immediately for medication
- b) Predominantly Inattentive ADHD; refer for further evaluation
- c) Invalid results; re-administer the test
- d) Not ADHD; no referral necessary

**Part III: Confidence and Self-Efficacy**

*Please rate your current level of confidence for each statement using the scale below:*

**1 = Not Confident | 2 = Slightly Confident | 3 = Moderately Confident | 4 = Confident | 5 = Very Confident**

- 1. I can distinguish clinical ADHD symptoms from normal adolescent behavior or trauma responses.**

1 2 3 4 5

- 2. I am confident in my ability to score and interpret the Vanderbilt Assessment Scale correctly.**

1 2 3 4 5

- 3. I feel confident discussing screening results and the need for referral with parents/guardians and medical providers.**

1 2 3 4 5