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Staff Education on the Use of an Evidence-Based Practice Tool to Manage Alcohol Use Disorder

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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,
and that any and all revisions required by
the review committee have been made.

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Executive Summary: Staff Education Project

Staff Education on the Use of an Evidence-Based Practice Tool to Manage Alcohol Use Disorder

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Summary

This project was a staff education on an evidence-based practice (EBP) tool used to manage alcohol use disorder (AUD). The staff at the project site demonstrated a lack of knowledge of an EBP tool to manage patients with AUD, which can lead to undiagnosed and untreated AUD and adverse health outcomes. Unhealthy alcohol use causes serious health, economic, and social problems, and it is a leading cause of death and disability in the United States. The practice-focused question was, "Will staff education on the use of an evidence-based practice tool to manage alcohol use disorder increase staff knowledge of the tool? In this project, I aimed to educate staff on Screening, Brief Intervention, and Referral to Treatment (SBIRT), an EBP tool to manage AUD. The participants included three psychiatric mental health nurse practitioners and one administrative staff member. The training session lasted about 45 minutes. The effectiveness of the educational program was assessed using pre- and posttest surveys. The collected data were analyzed using descriptive statistics. The findings showed that the average pretest score was 3.75, while the average posttest score was 10.25, demonstrating a considerable increase in staff knowledge of SBIRT posttraining. Some recommendations of the study included using a blended learning approach and a larger sample size. The use of SBIRT as a result of staff education could impact nursing practice and patients' quality of life. Staff education on SBIRT creates more awareness about AUD, promotes positive social change within the practice and the community, and contributes to a more equitable and inclusive society for all patients. It enables all patients from different cultural backgrounds to receive the care they need.

Background

Unhealthy alcohol use is a public health issue that causes serious health, social, and economic consequences (Chi et al., 2022). It is a leading cause of death and disability in the United States, with approximately 178,307 deaths each year (Davis et al., 2024). About 31.3% of adults diagnosed with mental health disorders in the United States were heavy alcohol users in the previous year (Karno et al., 2021). Harmful alcohol use may lead to increased progression of diseases, psychological and social problems, massive expenses, alcoholic neuropathy, addiction, central nervous system depression, damage to brain cells, neuronal injury, motor incoordination, high blood pressure, atrial fibrillation, cardiac arrhythmias, cerebrovascular accidents, pancreatitis, and liver disease, and increases the risk of ovarian, breast, colon, gastric, rectum, liver, esophagus, larynx, and pharynx cancers (Varghese & Dakhode, 2022).

The U.S. Preventive Services Task Force (USPSTF) suggested screening all adults for hazardous alcohol use in primary care settings by implementing an evidence-based practice (EBP) tool such as screening, brief intervention, and referral to treatment (SBIRT), which is also recommended by public health leaders (Chi et al., 2022). Screening with the Alcohol Use Identification Test-Consumption (AUDIT-C), providing motivational interviewing, and then referring the patients to medication-assisted treatment for alcohol use disorder is a comprehensive strategy to manage alcohol use disorder (Davis et al., 2024). Implementing SBIRT has helped to diagnose and decrease alcohol use (Karno et al., 2021).

The practice problem was the lack of staff knowledge of SBIRT to manage AUD at the project site. The project site is an outpatient behavioral healthcare practice that diagnoses and treats patients with a wide range of mental and behavioral health disorders, such as depression, anxiety, bipolar, schizophrenia, ADHD, personality disorders, obsessive-compulsive disorder, and posttraumatic stress disorders. However, no attention is paid towards diagnosing and treating patients with AUD.

The project's purpose was to address the practice question, Will staff education on using an evidence-based practice tool to manage alcohol use disorder in an outpatient behavioral healthcare practice increase staff knowledge of the tool, as evidenced by changes in the post-staff survey? The gap in practice is the lack of an EBP tool to screen and manage patients with AUD. Hence, the project aims to increase staff knowledge of an EBP tool to manage AUD through staff education. The educational training aims to improve the quality of care provided to patients with alcohol use disorder by teaching the staff about SBIRT and its effectiveness in managing AUD. The staff education is based on the analysis, design, development, implementation, and evaluation (ADDIE) Model (Abdulredha Abbass et al., 2023). It identifies the gap in practice by analyzing the pretest survey on staff knowledge of SBIRT, designing a set of objectives to be achieved, developing and implementing the educational intervention program, and evaluating its effectiveness using posttest surveys.

Zhai et al. (2022) implemented multisession brief intervention (MBI) and single brief intervention (SBI) on patients who scored 11 and 26 on the Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST). There was a significant decrease in the

ASSIST score in the MBI group compared to the routine care group, which did not receive SBIRT. Sterling et al. (2021) compared the SBIRT group to the usual care group and found that patients who received SBIRT experienced less alcohol use over 7 years compared to the usual care group. These results were consistent with a study by Schwarz et al. (2019), where significantly more patients who received SBIRT attended specialized treatment compared with the non-SBIRT group at 3 and 18 months of follow-up. Equally, the difference in AUDIT scores was significant at both 3 and 18 months, where fewer people in the SBIRT group scored in the 8 to 15 range. Abdulredha Abbass et al. (2023) revealed that nurses who received a designed training program based on the ADDIE model experienced higher posttest scores than the control group. This shows that designed training programs based on the ADDIE model improved the nurses' knowledge and practice. Luo et al. (2024) provided evidence of the efficacy of the ADDIE model in increasing nursing staff training outcomes. They showed that the observational group that received training based on the ADDIE model experienced higher mean theoretical knowledge and practical skill levels than the control group. The strengths of the studies are Level I and Level II evidence, providing strong evidence of the effectiveness of SBIRT in diagnosing and managing alcohol use disorder. The studies equally emphasized the importance of implementing a designed training program based on the ADDIE model to increase staff knowledge of SBIRT.

Staff Education Project Development

My project's participants included three psychiatric mental health nurse practitioners and one administrative staff member. The participants were invited to

participate through phone messages and emails sent out by the CEO of the practice. The emails communicated explicit information about the educational training's objectives and potential benefits. Participation was voluntary, and participants were free to leave at will. The participants all signed a consent form to participate in the project freely. These participants were de-identified with numbers only known to the participants.

The staff education project was based on the ADDIE model. The ADDIE model aligned well with the focused project question, providing a structured approach to addressing the gap in practice. It analyzes the pretest surveys on staff knowledge of SBIRT, designs a set of objectives to be achieved through staff education, develops the educational training program, implements it by providing staff education, and evaluates the effectiveness of the educational training provided through posttest surveys. The pre- and posttest survey questions assessed the participants' attitudes and knowledge of SBIRT.

Before delivering the educational intervention to the staff at the project site, participants took 5–10 minutes to complete the pre-test survey, providing baseline information on their attitude, knowledge, and self-perception of skills on SBIRT, after which they received the PowerPoint presentation handout. The educational training program was delivered using a PowerPoint presentation, which was followed by a question-and-answer session. At the end of the presentation, the participants completed the posttest survey. The educational intervention took about 45 minutes, and all four participants attended the presentation. The completed pre- and posttest surveys were secured to maintain participants' confidentiality.

The collected data were analyzed using descriptive statistics to measure the change in staff knowledge level. The project's results are displayed as a table in Table 1 and a bar chart in Figure 1, demonstrating a significant difference in the pretest and posttest scores of the four participants.

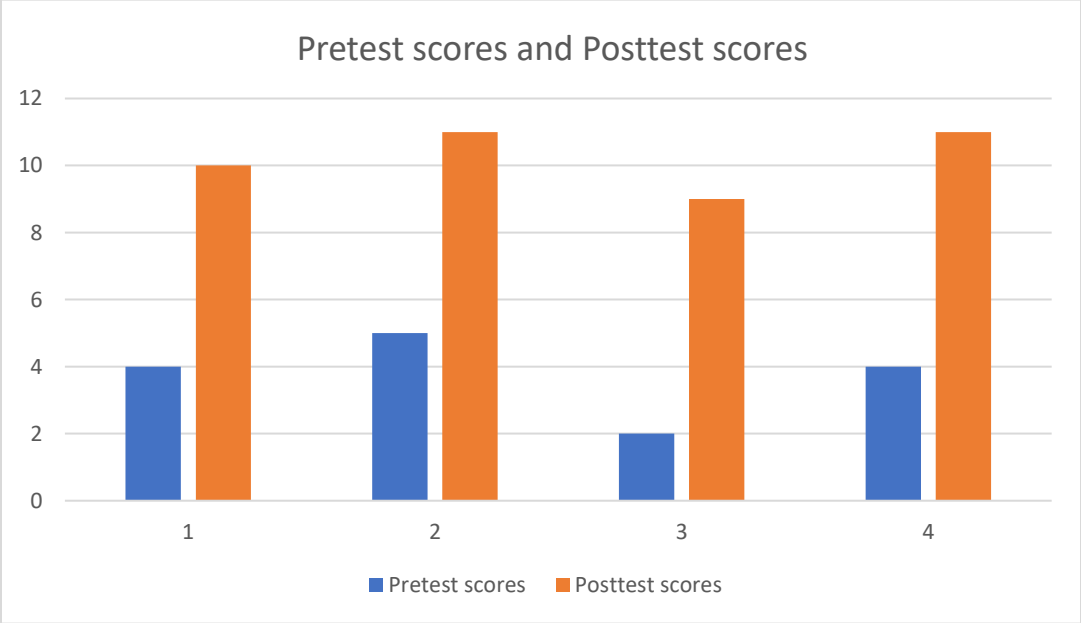
Table 1

Pre- and Posttest Scores for the Staff Educational Intervention on SBIRT.

Statistics	Pretest	Posttest
Minimum	2	9
Maximum	5	11
Mean	3.75	10.25

Figure 1

Pre- and Posttest Scores for the Staff Educational Intervention on SBIRT



Results

The results (see Table 1) showed that the average pretest score of the participants was 3.75, while the average posttest score was 10.25, which showed a significant improvement in knowledge acquisition by staff. The staff at the project site demonstrated a high level of understanding of the importance of implementing SBIRT to screen and manage patients with AUD after receiving staff education, as evidenced by an increase in their scores from pre- to posttests. The posttest scores equally showed that the staff perceived the acquisition of skills in implementing SBIRT. Based on the outcome of the posttest scores, the educational intervention successfully increased the staff's knowledge levels. Increasing the staff's knowledge, perceived skills, and confidence levels in implementing SBIRT will likely support using the tool. Implementing SBIRT can help diagnose and manage patients with alcohol use disorder, prevent complications resulting from untreated alcohol use, and improve the quality of care provided to the patients, which will improve the patient's quality of life and overall outcomes.

The implemented educational program can impact the organization because it increases the staff's knowledge of SBIRT in the outpatient behavioral healthcare practice. The pre-and posttest survey findings show that the educational intervention successfully increased staff knowledge, which may increase the use of SBIRT to promote the quality of care provided to the patients and improve patient outcomes. Hazardous alcohol use is a leading cause of death and disability in the United States, with deaths of about 178,307 each year (Davis et al., 2024). It is expected that the educational program will positively impact the patients receiving care at the outpatient behavioral healthcare practice, given

that before implementing the educational intervention, there was a lack of SBIRT in diagnosing and managing patients with AUD. With increased staff knowledge of SBIRT, more patients will likely receive SBIRT, and timely diagnosis and management of AUD will improve the quality of life of AUD patients and decrease alcohol-related complications and disability.

The project has some limitations. First, the small sample size of four participants negatively impacts the generalization of the project's results to other outpatient behavioral healthcare practices. Second, only staff who worked at the specific practice were included, causing bias in recruiting participants. Third, findings may be impacted because they were based on self-reported data, which increased the risk of social desirability, recall, and interpretation bias. Fourth, there was a lack of a blended learning approach, with both online and in-person training, to support diverse learning styles and flexibility.

The project's significance is seen at the local site and the community level because increasing staff knowledge of SBIRT could lead to better health outcomes in the general population and decrease disability and death rates. It may equally reduce the enormous expenses associated with alcoholism and promote the productivity of the working population. The designed educational intervention may serve as a guideline to support other behavioral healthcare practices in diagnosing and managing AUD.

Conclusion

The main objective of this doctoral project was to increase staff knowledge of SBIRT, an EBP for diagnosing and managing AUD, through a designed educational

program. Staff education on the importance of implementing SBIRT was crucial, given that unhealthy alcohol use is a serious public health problem that causes adverse health, social, and economic outcomes. Given the patient population at the project site, implementing SBIRT should positively impact the quality of care provided.

The ADDIE model provided a structured approach to successfully carrying out staff education. The educational intervention included information on unhealthy alcohol use, SBIRT, and evidence supporting the importance of staff education to increase staff knowledge of SBIRT. It was delivered using a PowerPoint presentation, and pre-and posttest surveys were used to assess staff knowledge acquisition of SBIRT. The project's results showed a significant increase in knowledge of SBIRT, as evidenced by an increase in the posttest scores, which will likely support using the tool on the project site to improve patients' outcomes and lower the rate of undiagnosed and unmanaged patients with alcohol use disorder.

Some recommendations of the study included implementing a blended learning approach, with both online and in-person training, to support diverse learning styles and flexibility. Feedback from the project must be incorporated to improve subsequent educational training. Moreover, a larger sample size and the inclusion of other behavioral healthcare practices were needed to generalize results to other practices. Emphasizing the confidentiality of responses was necessary to prevent social desirability bias.

The use of SBIRT as a result of staff education will significantly impact nursing practice and the patient's quality of life. It equips the staff with the knowledge and clinical skills to provide high-quality patient care, adequately diagnose and manage

AUD, and promote the resolution of complex mental health problems. It helps to apply critical thinking, case management, and leadership skills while complying with ethical and professional standards. Staff education on SBIRT can aid in the early diagnosis and treatment of AUD to prevent complications. Staff education on SBIRT creates more awareness about AUD, enabling staff to be proactive change agents and promote positive social change within the practice and the community. It contributes to a more equitable and inclusive society for all patients through staff actions and decision-making processes. Educating staff encourages a welcoming and equitable work environment where all the patients receive the care they need, irrespective of their cultural background.

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