

IMPROVING ALCOHOL USE SCREENING ON A UNIVERSITY CAMPUS WITH AUDIT-C: A REFLECTIVE PRACTICE REPORT

Jamie Sutton, DNP, MSN-Ed, RN, CNEcl, Grand Canyon University

ABSTRACT

The purpose of this reflective practice was to explore why alcohol use disorder (AUD) was not being routinely assessed when patients visited the primary care center on a large Christian university campus in central Arizona. As a nursing instructor at this university, I was confident that alcohol consumption occurred among the patients seen at the college's healthcare center because of the acceptance of its nature in American college culture. On several occasions, I read anonymous prayer requests on campus from young adults reaching out for help with their use of alcohol and other substances. Even though the university's campus is a dry campus where alcohol is prohibited, there are still opportunities to obtain it, which can lead to AUD. Alcohol use can cause negative consequences that can permanently change someone's life. Early identification allows those with AUD to have the choice to make healthier decisions. This reflection process includes quantitative data from implementing the World Health Organization's (WHO) Alcohol Use Disorders Identification Test-Concise (AUDIT-C) on this university campus and recommendations for future practice, policy, and research. The data analyzed the comparison and implementation groups, and chi-square tests were used. The results indicated there was a statistically significant improvement in AUD identification rates $\chi^2(1, N = 991) = 42.97, p = .001$.

Keywords: AUD, WHO AUDIT-C, Lewin's change model adults, university, Dewey, reflection

PURPOSE

The National Institute on Alcohol Abuse and Alcoholism (2021a) reported that an estimated 95,000 people die from alcohol-related causes annually. This statistic makes alcohol abuse the third-leading preventable cause of death in the United States. Alcohol abuse by adults and college students is a well-known, documented problem across the world (Dorji et al., 2020). According to the 2018 College Drinking Fact Sheet (NIAAA, 2021b), 53% of adult college students drank alcohol in the last month, including one in three adults engaging in binge drinking. After seeing firsthand the personal, handwritten prayer requests

for help with alcohol abuse at this large Christian university, it became apparent that screenings needed to be implemented for early identification of AUD. This reflective practice examines the use of the World Health Organization's Alcohol Use Disorders Identification Test-Concise (AUDIT-C). It also expands on the benefits of early identification of AUD to enhance students' opportunities to make changes.

Background

The National Institute on Alcohol Abuse and Alcoholism (2021b) reported that people are more likely to seek help for a medical problem that is

from AUD than for drinking too much alcohol. Despite the accessibility of effective treatments, statistics show that about 80% of individuals with AUD will never receive treatment (Naps et al., 2018). According to national epidemiologic information, this is mainly due to not knowing they have or are at risk for AUD (Naps et al., 2018). Considering that many patients with AUD do not perceive their drinking to be problematic, results support the use of risk prevention/intervention programs to target at-risk individuals for problematic drinking rather than targeting problematic drinking alone (Nichols et al., 2019). Since AUD can affect an individual's health and life, it is important to provide early identification and support to potentially make a difference in a young person's life.

At the university where I work as a nursing instructor, screenings for alcohol use disorder were not being performed often on patients who visited the on-campus health clinic. Without the screening, it was nearly impossible to identify a patient with AUD. The purpose of this reflection was to explore the implementation of a policy to use an innovative tool, Alcohol Use Disorders Identification Test-Concise (AUDIT-C), for early identification of AUD on this university campus. This evidence-based screening tool was found to be short, easy to use, and valid for screening for AUD. Another benefit of this tool was how quickly the data could be obtained from the patient, which allowed the provider time to evaluate the score before seeing the patient. When the healthcare provider diagnosed a patient with AUD, a conversation was held to discuss these findings, promote change in their lifestyle, and refer to further services if necessary.

A diagnosis of AUD from a healthcare provider opens up access to professional treatment and support, such as counseling, therapy, and medication. By identifying individuals who are at risk for AUD using AUDIT-C, referrals can be made for further treatment (Higgins-Biddle & Babor, 2018). A referral for a patient could be made to promote healthier choices (Floyd, 2021). Another outcome of being diagnosed with alcohol use disorder can be an important step toward recognizing and acknowledging the issue, which can be the first step in the recovery process. Treatment and support for alcohol use disorder can help improve overall quality of life by reducing or eliminating the symptoms associated with the disorder. It is important to under-

stand that early diagnosis and treatment of alcohol use disorder can reduce or eliminate the risk of serious complications, both physical and mental.

John Dewey's theoretical perspective was used as the framework for this reflection because it explores how education can be guided from personal experiences (Dewey, 1986). It outlines that education should be an active learning process through which students discover, create, and learn from their experiences. Dewey (1986) believed that learning should be a social experience, emphasizing the importance of collaboration, reflection, and critical thinking.

Dewey's *Philosophy of Education and Experience* (1986) describes the challenges of attempting to change thoughts and perceptions related to the improvement process. Dewey (1986) wrote, "It is for this reason that the conduct of schools, based upon a new order of conceptions, is so much more difficult than is the management schools which walk in beaten paths" (p. 2). The university where I work was not regularly utilizing an evidence-based screening tool for AUD on the student population, possibly because it had not been utilized before or because the size of the problem was unknown.

PROBLEM

The problem was that no patient seen at the healthcare facility on campus was being screened for alcohol use disorder. This problem was unexpected, and I was surprised screening was not happening because of the popularity of drinking alcohol in the population cared for at the facility and because of the well-known evidence-based screening tools available. As early identification of frequent drinking is ideal in young adults, Tomas et al. (2017) support having effective early detection instruments and suggest preventive measures.

My educational and professional background as a nurse had given me the skills to understand that implementing screenings to assess for alcohol use disorder was simple and necessary. Numerous potential benefits exist for implementing the AUDIT-C screenings to be completed by the healthcare staff. Having undiagnosed AUD may occur long before someone is made aware of their drinking problem. When an alcoholic is unaware that their drinking is a problem, it can lead to negative impacts on their lifestyle, health, long-term goals, and other people around them.

Being in this position can lead to a lack of stability and support and make it more difficult for the family members of an alcoholic to trust others and form healthy relationships. It can also make it more difficult for the alcoholic to pursue their goals and achieve success.

When a person has AUD, it can affect multiple generations within families. My personal experience of being raised by an alcoholic parent showed me how one's mental health can be affected by being in that environment. Because I knew some of the effects of living with an alcoholic, I was inspired to help others by implementing a way to identify AUD early, so hopefully, lifestyle changes could be made. My feelings about preventing alcohol use disorder in others ranged from a sense of responsibility to a deep feeling of compassion and being empowered that I could use personal experience to help others. I also gained a sense of satisfaction in knowing that the project would make a positive impact on the lives of young people.

The National Institute on Alcohol Abuse and Alcoholism (NIAAA, 2021a) stated that in June 2019, 47.1% of adults ages 18 to 22 drank alcohol in the past month. The website also reported that 29.6% of adults ages 18 to 22 reported binge drinking in the past month. These numbers are staggering when the potential outcomes are evaluated regarding patients' health and the cost of long-term effects of alcohol consumption for both patients and society.

The general problem was that this university's healthcare clinic did not have a policy to use a validated screening tool to identify AUD in all patients. The Health and Wellness Clinic served as a primary care facility for adult patients on this university campus. The practice of the healthcare providers at the site was to ask selected patients if they drank alcohol and, if so, how much. These two questions were not scored or rated to produce an intervention if needed. By not utilizing a validated scoring system in their practice, the answers to the two questions were evaluated subjectively. Based on my experience, this university needed to utilize a validated evidence-based screening tool to potentially improve patient outcomes by not overlooking or subjectively interpreting patients' responses to questions about their alcohol consumption behaviors. I also believed that every patient should be screened to avoid missing someone who may need

help, as it was unknown how many patients would be diagnosed with AUD at this university. This was important because many times, those who drink alcohol regularly do not realize how much is too much until something unfortunate happens or they struggle with quitting drinking.

WORKING IDEAS

Faculty who participate in reflective practice have an opportunity to document their reflections, which can be shared with colleagues in their institution, presented at academic conferences, or potentially published lessons learned in academic journals (Greenberger et al., 2022). Another positive outcome of reflection from college faculty can include enhancing faculty experiences, developing self-awareness of a topic, and becoming more open to new ideas that may produce beneficial outcomes (Greenberger, 2020). The information learned from this project about screening for AUD on a university campus was valuable and built my confidence about educating its importance; however, I was unsure how to share my findings in a way that could impact the lack of policy at the Health and Wellness Center. After reading the Reflective Readiness section by Greenberger and Maguire (2023), I saw that my wholeheartedness for this topic was genuine, as shown through my involvement in improving this problem.

A few reasons that I believed no policy was in place at the Health and Wellness Center may have included the lack of awareness or knowledge about the signs and symptoms of an alcohol use disorder, lack of resources to implement a screening policy for alcohol use disorder, and the lack of motivation or incentives to create and implement a screening policy for alcohol use disorder. Another potential cause of not screening every patient may have included the stigma associated with having an alcohol use disorder on a dry campus. There may also have been a lack of clear guidance or regulations from governing bodies on how to create and implement a screening policy for alcohol use disorder or a lack of commitment from leadership or management to make a screening policy for alcohol use disorder a priority. One reason for this may be that alcohol use disorder can be a sensitive subject, and there may have been concern from governing bodies or management about how to address the issue respectfully and effectively. Second, the stigma associated with alcohol use disorder could

make it difficult for leadership or management to prioritize creating a screening policy. Third, there could be a lack of awareness among governing bodies and leadership of the potential benefits of screening for alcohol use disorder. Lastly, by not screening patients for AUD at the university, the culture could appear to encourage or tolerate excessive alcohol consumption. This could lead to students using alcohol to cope with the pressures of university life or to fit into social norms.

Random Screenings for AUD

With random screenings for AUD, there was no set way to determine who was or would be screened due to the lack of policy. The decision to screen was left solely up to the healthcare provider. The healthcare provider could decide to complete the screening based on many subjective thoughts that occur during the appointment. The provider may decide to screen based on a variety of factors, such as the patient's age, gender, family history of alcohol abuse, or any current or past signs of alcohol abuse. Additionally, the provider may have decided to screen for AUD if the patient had a family history of alcohol abuse or if the patient had a history of substance abuse.

From my professional experience as a nurse, mother, and daughter of an alcoholic, I had seen how random screenings for AUD can overlook or miss those who have an alcohol abuse disorder. For example, I had seen patients come in for appointments who were exhibiting signs of stress, depression, or other mental health issues and not be screened for AUD. This could lead to underdiagnosing the patient and treating the symptoms instead. Ultimately, it was up to the healthcare provider to decide whether to screen for AUD based on their clinical judgment and, most importantly, the information available to them. Generally, alcohol consumption is not brought up by a patient, as most feel it is a personal issue, feel embarrassed, or do not want to discuss it. Without knowing the patient's complete behaviors, it can be a struggle to diagnose something. This made the AUDIT-C, a valid screening tool for identifying at-risk drinking among adults who utilized university primary care, more valuable and appropriate (Campbell & Maisto, 2018).

Subject Self-Assessments

Numerous self-screening tools for AUD, including AUDIT-C online, are available for anyone to complete. According to Baggio et al. (2019), caution

should be used with these self-screenings without professional guidance. Numerous studies have been done on patients using these self-screening tools for self-diagnosis. Imposing self-screening for AUD does not consider the individual's needs and personal circumstances. Self-screening for AUD is best done in conjunction with a qualified mental health professional. This type of screening should include an individual assessment of the person's alcohol use, risk factors, and any mental health or social needs present. A professional can provide advice and resources to help the individual make healthy decisions about their alcohol use.

Screening Every Patient

When every patient seen receives a screening for AUD, the chance of missing or overlooking someone with AUD is decreased (Campbell & Maisto, 2018). Patients with AUD often visit their healthcare provider with symptoms that stem from alcohol use but fail to realize the root cause, making discussing their alcohol use a topic that is not brought up. AUD can also signify a much more serious underlying health condition. Additionally, AUD can lead to serious health risks, such as liver damage, high blood pressure, and mental health disorders. Without knowing the patient's alcohol consumption behaviors, providers could easily overlook this diagnosis, which could affect the patient's long-term health.

To recap the three different working ideas, it is important to remember that all three screen for AUD. The first idea was for the screenings to occur with random patients when the provider feels necessary. The second working idea was to consider patients screening themselves for AUD; this would be done typically through online apps or websites. Lastly, the working idea was to screen every patient seen in the university's health clinic. This last idea is supported by national and governmental agencies to help identify AUD early on with the hope of decreasing negative consequences.

REFLECTIVE-NARRATIVE

After identifying the problem of not having a policy in place to support regular screenings for everyone seen at the Health and Wellness Center, I felt this may be from the lack of awareness or knowledge about the signs and symptoms of an alcohol use disorder, lack of resources to implement a screening policy for alcohol use disorder,

and/or the lack of motivation or incentives to create and implement a screening policy for alcohol use disorder. Another potential cause of not screening every patient may include the stigma associated with having an alcohol use disorder on a dry campus. Some dry-campus universities may choose not to provide screening services for AUD to avoid any discussion or acknowledgment of alcohol use. There may be a belief that alcohol is a dangerous and morally wrong substance that should not be used, discussed, or acknowledged in any way. Some healthcare providers may not have the resources or training to screen for alcohol use disorders or may not feel comfortable doing so. Lastly, by screening patients for AUD at the university, the culture may appear to encourage or tolerate excessive alcohol consumption, but this is not the purpose.

The absence of screening for alcohol use disorders in young people can lead to long-term damage in several ways. First, it can cause physical damage. Alcohol use can lead to liver damage, heart damage, and other physical and mental issues impairing brain development in adolescents, leading to long-term cognitive and behavioral problems (NIAAA, 2021a). Second, not screening for alcohol use disorders can lead to social and emotional problems in young people. Alcohol use can cause social isolation, depression, anxiety, and other mental health issues (NIAAA, 2021a). Third, not screening for alcohol use disorders can lead to an increased risk of engaging in risky behaviors, such as driving under the influence, using illicit drugs, or engaging in unsafe sexual practices (NIAAA, 2021b). Ultimately, not screening for alcohol use disorders can lead to long-term damage in young people, including physical, mental, and social issues.

When one is an alcoholic, it often becomes a multigenerational problem affecting others. As every individual affected by a family member who is an alcoholic is different, their experiences and backgrounds will shape their personalities and characteristics in unique ways. It is important to note that growing up in a household with an alcoholic parent can be a challenging and stressful experience, and it can have a significant impact on a child's emotional and mental well-being. Children of alcoholics may be at an increased risk of developing mental health issues such as depression, anxiety, and substance abuse disorders, and they may struggle with issues related to self-esteem and self-worth.

Interestingly, it is not uncommon for people who have been raised by an alcoholic parent to have a strong drive and ambition. This can allow individuals—such as myself—to take control of their lives and create a better future for themselves. Additionally, growing up in a chaotic and unpredictable environment may lead some people to become highly motivated to succeed and compensate for the difficulties they have faced. For myself, the uneasy feeling in our household made me realize that I did not want to live in an abusive environment any longer than I had to. Ultimately, everyone's experience is unique, and the reasons for their ambition may vary. These thoughts emphasize the importance of identifying AUD early on, allowing the patient to make better lifestyle choices that could, in turn, affect their future and the future of their family members. When a person with AUD stops drinking, it can help family members by reducing the financial burden of supporting the family member with AUD, reducing stress and conflict within the home, and improving the overall comfort of members in the family environment when they are together. When AUD is not occurring anymore, family members may decide to spend more time together if their relationships can survive the aftermath effects that they may continue to feel.

EVALUATION OF IDEAS

Random assessments are not as reliable as evidence-based assessments in diagnosing alcohol use disorders and do not take into consideration the individual's psychological, genetic, or physiological factors, or the context of the individual's environment, which can be used to diagnose a disorder (Boness et al., 2021). Evidence-based assessments, however, can factor in these considerations when determining the diagnosis. Scientific theorists can use evidence-based assessments to accurately diagnose alcohol use disorders, as well as other mental health disorders (Boness et al., 2021). These assessments are based on the theories of the disorder, allowing the clinician to make an informed and accurate diagnosis. Additionally, scientific theorists can use research to identify the most effective treatments and interventions for a particular disorder. Randomly choosing patients to assess for AUD could easily overlook identifying someone in need.

In a recent study by Mushi et al. (2022), all men were recruited for the study, but only one in three women was recruited. This was done to ensure equal representation of genders since more females visit the healthcare site; however, the other two out of the three women not chosen for the screening could have AUD and not be aware of it. Not screening everyone for AUD in primary health care is a missed opportunity for early detection and management (Mushi et al., 2022).

Providers have several barriers when considering randomly screening their patients for AUD. According to Palmer et al. (2019), despite healthcare provider's investment in resources, there are well-recognized barriers to implementing screening policies. These include the provider's time constraints, limited interest in the provider, lack of provider training, configuration with other treatment priorities, perceived absence of effectiveness of brief interventions, and challenges with treatment referrals (Palmer et al., 2019).

Self-evaluation assessments for alcohol use disorders, such as the Alcohol Use Disorders Identification Test (AUDIT) and the CAGE questionnaire, are screening tools used to evaluate an individual's drinking habits (WHO, 2018). These tools are useful for helping individuals determine whether or not they have an alcohol use disorder. The results of these tests can be used to refer individuals to treatment or provide further assessment. In comparison to scientific theorists, self-evaluation assessments for alcohol use disorders are limited in their ability to provide an objective assessment of an individual's drinking habits (Dunning et al., 2004). While the tests can help individuals identify a potential problem with drinking, they cannot provide a comprehensive diagnosis of an alcohol use disorder. Furthermore, these tests do not account for cultural and gender differences in alcohol use and do not consider the individual's emotional situation or social context. For a more comprehensive diagnosis, a clinician is needed to assess the individual's behavior and environment.

A study by Nichols et al. (2019) aimed to identify if personality traits (constraint and negative emotionality) and AUD are related in the first and second year of college for adult students. In this study, the sample population was 210 adult college students (41%) for the online survey in wave one and 178 individuals in wave two, and descriptive

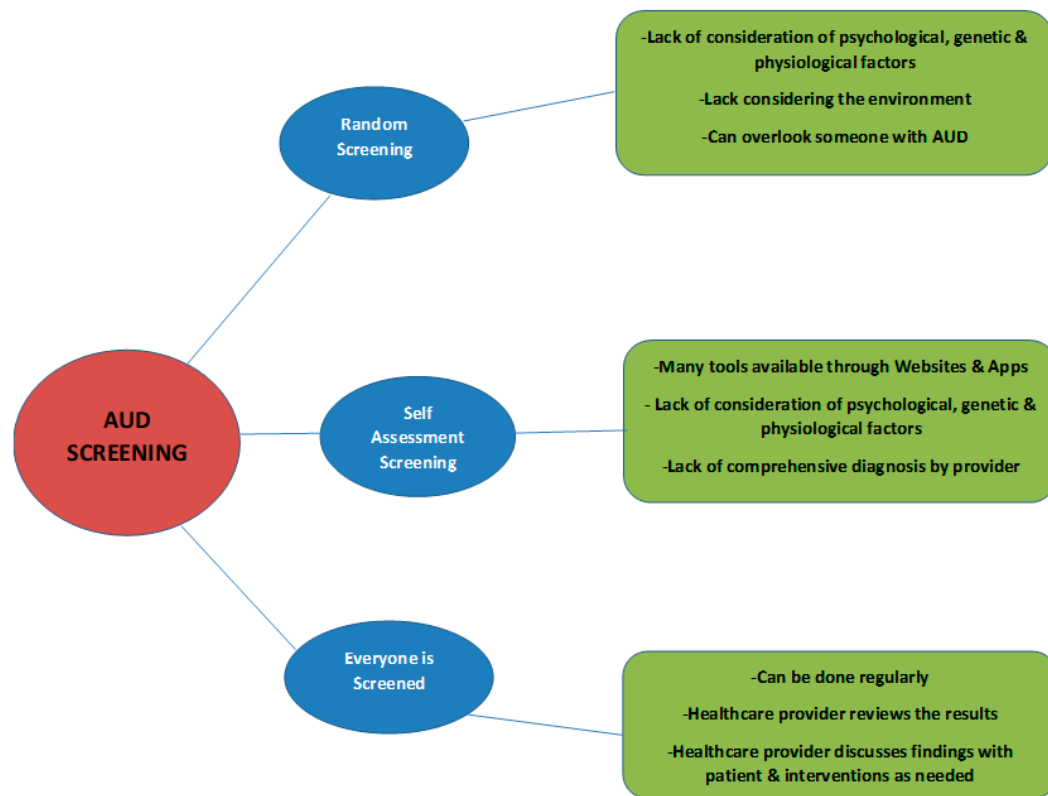
demographics were provided. The study showed that many college students with AUD did not perceive their drinking to be problematic. Results also showed that college students, in general, were not concerned with their level of alcohol use, even when they met the criteria for mild AUD. This makes sense, as people who use self-screening are likelier to overlook or ignore the results if they show AUD. It is also easier for the person to ignore a positive screening for AUD if they test themselves than if a provider does it. Self-screening may benefit some people, but it does not address any underlying issues and may be inadequate for others.

Assessments for alcohol use disorder on all patients seen in a primary care center are important because they help identify and diagnose individuals who are at risk for alcohol-related problems and allow clinicians to provide early intervention and treatment to help reduce the long-term consequences of excessive alcohol use. Additionally, assessing all patients for alcohol use disorders can help clinicians identify and address any underlying mental health issues that may be contributing to the problem. Early assessment is essential as it can help reduce the risk of developing more serious physical and psychological harm, as well as costly and potentially life-threatening conditions such as liver cirrhosis and other organ damage.

Evidence about the importance of screening for AUD regularly is being appraised continuously, and frequent screening can identify AUD before it has life-changing consequences (USPSTF, 2018). The U.S. Preventive Services Task Force (USPSTF, 2018) recommends screening adults aged 18 and over for AUD regularly, including pregnant and postpartum women. The USPSTF also recommends that clinicians provide brief behavioral counseling interventions to individuals who screen positive for AUD because it can help reduce AUD and its associated harms. In addition, the World Health Organization (WHO) (2018) recommends that individuals with AUD be offered a range of services, including psychological interventions, social support, medical treatments, and lifestyle changes. Overall, regular screening for AUD is important for early identification, which can help reduce related problems for the patient and others around them now and in the future.

The National Institute on Alcohol Abuse and Alcoholism (NIAAA) recommends that all healthcare providers screen their patients for alcohol use disorders and complete an assessment for those who

Figure 1
Decision Tree



report drinking patterns that could indicate a problem. Studies show that an initial assessment of all patients seen in a primary care setting can effectively identify those in need of further treatment for alcohol use disorders (Chatterton et al., 2022). Additionally, the American Society of Addiction Medicine (ASAM) provides evidence-based guidelines for the assessment and treatment of alcohol use disorders that can be used to ensure all patients are properly assessed (Council et al., 2020).

DECISION

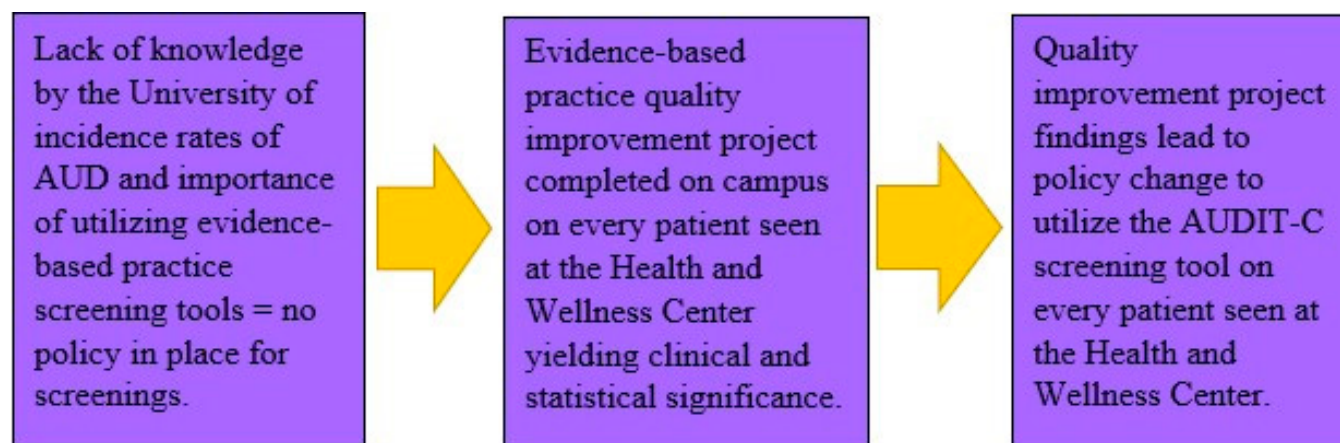
Considering that AUD is a serious and potentially life-threatening condition that can have serious implications for both physical and mental health, it is important to identify and address AUD early on before it becomes a more severe problem and impacts others. In my professional opinion, screening every person for AUD is better than randomly screening people because it allows for a more comprehensive assessment of this population and ensures that no one is unfairly left out or overlooked, as would be done in random screenings. Self-assessments have many downsides, including not sharing the results with a provider to provide assistance, which could lead to ignoring

and worsening AUD. If a person self-assesses and ignores a positive result, negative consequences are more likely to happen to them and others around them. Unfortunately, some negative consequences are irreversible.

Regular screenings would allow for early intervention, helping to reduce the rate of alcohol-related harm and improve the overall well-being of individuals, especially young adults. Furthermore, regular screenings could help identify those who may already have a problem, enabling them to get the help they need. This could include counseling, support groups, or even medication. Finally, regular screenings could help identify those at risk of developing AUD, allowing for prevention strategies to be put in place ideally before harm can be done.

The most plausible explanation for not having a policy in place to screen all patients for alcohol use disorders was that the university did not believe alcohol use disorders were a problem on campus. They may not have been aware of the prevalence of alcohol use disorders in their population, or they may not have thought it necessary to screen for them (Powers et al., 2017). Alternatively, they may have believed that screening would be intrusive and an invasion of patient privacy. Overall, the uni-

Figure 2

Working Ideas Leading to the Decision

versity may not have realized the size of the problem or may have believed it did not represent this university since it was a dry campus, and a policy was not necessary for AUD screening.

Dewey (1922) notes five steps in reflective practice, the first being identifying the problem. In this reflective practice, the problems include that there was no policy for screening every patient for alcohol use disorder at the campus Health and Wellness Center. Next, I looked at the specification, or cause, of the problem and discussed my ideas in Figure 2. Moving forward into the third step of Dewey's reflective practice, I needed to develop a solution to the problem (Dewey, 1922).

Before this research could occur, IRB approval was submitted to conduct the screenings at the university's Health and Wellness Center. After receiving university IRB approval in January 2022, the data collection began in the spring, and electronic health records were collected through chart audits. The implementation data was collected for four weeks by screening every patient at the Health and Wellness Center for AUD, while the comparative data was collected for four weeks before the implementation data collection. The screening process included having each patient answer three quantitative questions about their alcohol consumption on the AUDIT-C tool while in the lobby awaiting their scheduled appointment with a healthcare provider. Each healthcare provider who worked with patients at this facility was educated on the need for the project, the screening process, the evidence-

based practice screening tool AUDIT-C, and how to evaluate the scores of the screenings.

The data collected from both groups were sent to a professional statistician for evaluation. The project included 991 participants ($n = 661$ in the comparative group and $n = 330$ in the implementation group). Data from the comparison and implementation groups were analyzed for the number of patients diagnosed with AUD and the number of referrals made. Data were analyzed using a chi-square test conducted in SPSS Version 28. The number of patients identified with AUD and referrals were considered nominal data for both groups. The chi-square analysis is a nonparametric statistical technique that does not require assumptions about population parameters (Kent State University, 2021). The chi-square test is a statistical test used to compare observed results with expected results (Kent State University, 2021). This test is used to determine if a difference between observed data and expected data is due to chance or if it is due to a relationship between the variables being studied (Kent State University, 2021). This test was chosen to analyze data from before and after the implementation of the WHO AUDIT-C to determine if there was statistical evidence connecting the AUDIT-C to AUD diagnoses and referrals. A chi-square (χ^2) statistic measured the difference between the observed and expected frequencies of the outcomes, while the p -value was also obtained.

The following clinical question was answered in this project: To what degree does the implementa-

tion of the WHO AUDIT-C impact the rate of identification and referral to appropriate services for AUD compared to current practice among adult at-risk patients in a primary care center on a university campus in central Arizona? To answer the clinical question, data on AUD identification and referrals obtained from patients' Electronic Medical Records were analyzed by chi-square tests using IBM SPSS Version 28. The results are displayed in Table 3. The AUD identification rate increased from 0% ($n = 0$ out of 661) in the comparative group to 6.4% ($n = 21$ out of 330) in the implementation group, $X^2 (1, N = 991) = 42.97, p = .001$. The p -value is less than .05, which indicates that the increase was statistically significant. For referrals, the rate did not change from the comparative group, 0% ($n = 0$ out of 661) to the implementation group, 0% ($n = 0$ out of 21), $X^2 (1, N = 682) = .001, p = .999$. The implementation group did not have any patients who scored in the range of needing referrals; all scores were less than 8 on the AUDIT-C, which is the cutoff score for needing a referral. The highest AUDIT-C score was a 6. The p -value was greater than .05, which indicates no statistically significant change in referrals. The results support clinical significance because the identification rate improved after implementing the AUDIT-C tool.

Table 1

Chi-Square Test Results for Identification of AUD and Referrals

Variable	Comparative ($n = 661$)		Implementation ($n = 330$)		$X^2 (1)$	p
	N	%	n	%		
Identification of AUD	0	0.0	21	6.4	42.97	.001
Referrals ^a	0	0.0	0	0.0	.001	.999

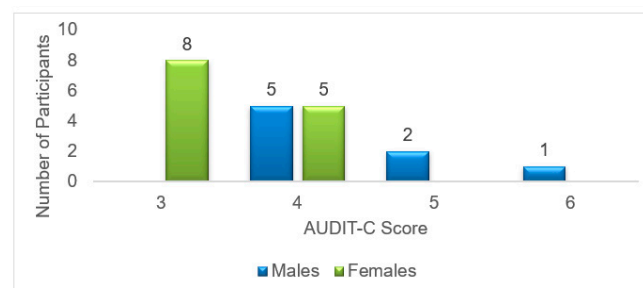
Note. ^a $n = 21$ for implementation group

The results support statistical and clinical significance, as shown by the p -value of .001 and an increase in the AUD identification rates after implementing the WHO AUDIT-C. These findings support the intervention for improving the identification of at-risk patients. Figure 2 displays a breakdown of the number of AUDIT-C scores for males and females in the implementation group. There were eight females with a score of 3, five females with a score of 4, five males with a score of 4, two males with a score of 5, and one male with a score of 6. To receive an AUD diagnosis, males must score 4 or higher, and females must score 3

or higher (U. S. Department of Veterans Affairs, 2019). The referral rates did not change after the AUDIT-C intervention; however, this was because there were no patients in the implementation group who met the cutoff score for referrals.

Figure 3

AUDIT-C Scores by Male and Female



REFLECTIVE CRITIQUE

My experience from conducting this reflective inquiry was valuable because I was able to gain a better understanding of AUD and its prevalence in primary care settings and with a young adult population. Different screening methods are available to identify and diagnose AUD to see the benefits of screenings and learn about a variety of available tools. Ultimately, this reflective inquiry helped me better serve and advocate for more patients in the future. Learning the ease of screening patients and how it has the potential to make a positive change in patients' lives, especially young adults, is heartwarming. Great comfort was found in knowing that early identification can help reduce the long-term impacts of AUD on the patient and their family members.

Evidence about the importance of screening for AUD regularly is being appraised continuously, and frequent screening can identify AUD before it has life-changing consequences (USPSTF, 2018). According to the NIAAA (2021a), nearly 9% of full-time college students, ages 18 to 22, met the criteria for AUD in a 2019 national survey. This project determined how implementing the WHO AUDIT-C into clinical practice positively impacted AUD identification and referrals to services compared to the prior method of random screenings when the healthcare provider felt it was necessary.

Lewin's change theory (1947) also supported the value of using the AUDIT-C in practice by demonstrating the purpose and plan of implementing an evidence-based screening tool for identifying AUD.

Lewin's change theory (1947) was used to create the perception that a change was necessary and to move toward the change at the project site. After the results showed statistical and clinical significance for identifying AUD, the university decided to continue implementing the WHO AUDIT-C as a permanent screening tool in their practice. The Health & Wellness Center implemented a policy in the fall of 2022 to support using AUDIT-C for every patient seen at the center. This reflection shows the importance of understanding how common alcohol consumption is today and that it still occurs with this university's population even though alcohol is prohibited.

This reflection displays the passion I feel for identifying AUD early before lives are affected and changed by a preventable choice. I have come to understand that alcohol misuse is an issue with the potential to affect people in many ways and that early identification, education, and prevention are key to preventing and reducing alcohol misuse. I have gained confidence in understanding the importance of recognizing and addressing the social, economic, and cultural factors that can contribute to alcohol misuse today. There is hope that utilizing AUDIT-C for every patient will prevent others around those.

Recommendations for Further Research

An important recommendation for further research is the feasibility of integrating the AUDIT-C into more university healthcare centers. The WHO created the AUDIT-C, which is in the public domain. The scoring of the AUDIT-C is simple. Evaluation and interpretation of scores from AUDIT-C are explained on the AUDIT-C tool (U. S. Department of Veterans Affairs, 2019). Investigating what restrictions university health centers may encounter that limit using the AUDIT-C is recommended, as it would assist in identifying barriers to utilizing an evidence-based screening tool in their practice.

Recommendation for Practice

A recommendation for practice is to explore the use of AUDIT-C in primary care facilities among non-English speaking patients. The AUDIT-C has been translated into various languages (Borges et al., 2021). By providing the AUDIT-C available in several languages, more patients can be screened for AUD, which could ultimately improve patient and community outcomes.

Another recommendation for practice is for healthcare workers to consider utilizing AUDIT-C for screening purposes on patients seen in clinics who are under 18 years old. Alcohol consumption often begins during adolescence, making screening young adults appropriate. Gibson et al. (2020) found that pediatric healthcare providers were open to using tablets for screening purposes with this population. AUDIT-C scores of 3 or more in adolescents aged 12 to 19 have been validated for diagnosing AUD (Liskola et al., 2018). Early identification of AUD can allow for interventions to occur as soon as adolescents are diagnosed, which could potentially allow for a positive change or outcome that could impact the rest of their lives.

References

- Baggio, S., Trächsel, B., Rousson, V., Rothen, S., Studer, J., Marmet, S., Heller, P., Sporkert, F., Daepenn, J., Gmel, G., & Iglesias, K. (2020). Identifying an accurate self-reported screening tool for alcohol use disorder: Evidence from a Swiss, male population-based assessment. *Addiction*, 115(3), 426–436.
- Boness, C., Watts, A., Moeller, K., & Sher, K. (2021). The etiologic, theory-based, ontogenetic hierarchical framework of alcohol use disorder: A translational systematic review of reviews. *Psychological Bulletin*, 147(10), 1075–1123. <https://doi.org/10.1037/bul0000333>
- Borges, T. L., da Cruz de Sousa, L. P., Reisdorfer, E., Vedana, K. G. G., Pillon, S. C., & Miaso, A. I. (2021). Factors associated with alcohol use and abuse in Brazilian primary health care settings. *Archives of Psychiatric Nursing*, 35(5), 486–490. <http://doi.org/10.1016/j.apnu.2021.06.008>
- Campbell, C. E., & Maisto, S. A. (2018). Validity of the AUDIT-C screen for at-risk drinking among students utilizing university primary care. *Journal of American College of Health*, 66(8), 774–782. <https://doi.org/10.1080/07448481.2018.1453514>
- Chatterton, B., Agnoli, A., Schwarz, E. B., & Fenton, J. (2022). Alcohol screening during US primary care visits, 2014–2016. *Journal of General Intern Medicine*, 37, 3848–3852. <https://doi.org/10.1007/s11606-021-07369-1>
- Council, A. Q. I., Goldsmith, R. J., Dlfapa, D., Kotz, M. M., Novack, D. P. S., Pating, D. R., ... & Fapa, F. (2020). The ASAM clinical practice guideline on alcohol withdrawal management. *Journal of Addiction Medicine*, 14, 1–72. <https://doi.org/10.1097/adm.0000000000000668>
- Dewey, J. (1922). An analysis of reflective thought. *The Journal of Philosophy*, 19(2), 2938.
- Dewey, J. (1986). Experience and education. *The Educational Forum*, 50(3).
- Dorji, T., Srichan, P., Apidechkul, T., Sunsern, R., & Suttana, W. (2020). Factors associated with different forms of alcohol use behaviors among college students in Bhutan: A cross-sectional study. *Substance Abuse Treatment, Prevention & Policy*, 15(1), 70. <https://doi.org/10.1186/s13011-020-00315-0>College
- Dunning, D., Heath, C., & Suls, J. M. (2004). Flawed self-assessment: Implications for health, education, and the workplace. *Psychological Science in the Public Interest*, 5(3), 69–106. <https://doi.org/10.1111/j.1529-1006.2004.00018.x>
- Floyd, L. K. (2021). Ask, advise, assist, and follow: Alcohol SBIRT urgently needed. *The Journal for Nurse Practitioners*, 17(4), 437–440. <https://doi.org/10.1016/j.nurpra.2020.10.035>
- Gibson, E. B., Knight, J. R., Levinson, J. A., Sherritt, L., & Harris, S. K. (2020). Pediatric primary care provider perspectives on a computer-facilitated screening and brief intervention system for adolescent substance use. *Journal of Adolescent Health*, 69(1), 157–161. <https://doi.org/10.1016/j.jadohealth.2020.09.037>
- Greenberger, S. W. (2020). Creating a guide for reflective practice: Applying Dewey's reflective thinking to document faculty scholarly engagement. *Reflective Practice*, 21(4), 458–472.
- Greenberger, S. W., Maguire, K. R., Martin, C. L., Chavez, T. E., & Delgado, G. (2022). Discovering reflective-narrative: Constructing experience in the Deweyan guide for reflective practice. *Reflective Practice*, 23(2), 147–161.
- Greenberger, S. W., & Maguire, K. R. (2023). Guide for reflective practice for undergraduates (Version 3.1). *Journal of Scholarly Engagement*. https://research.gcu.edu/files/updated_cjur_guides/ugrp_version_31pdf
- Higgins-Biddle, J. C., & Babor, T. F. (2018). A review of the Alcohol Use Disorders Identification Test (AUDIT), AUDIT-C, and USAUDIT for screening in the United States: Past issues and future directions. *American Journal of Drug & Alcohol Abuse*, 44(6), 578–586. <https://doi.org/10.1080/00952990.2018.1456545>
- Kent State University. (2021, May 24). *SPSS tutorials: Chi-square test of independence*. <https://libguides.library.kent.edu/SPSS/ChiSquare>
- Lewin, K. (1947). Frontiers in group dynamics: Concept, method, and reality in social science; social equilibria and social change. *Human Relations*, 1, 5–41. <https://doi.org/10.1177%2F001872674700100103>
- Liskola, J., Haravuori, H., Lindberg, N., Niemelä, S., Karlsson, L., Kiviruusu, O., & Marttunen, M. (2018). AUDIT and AUDIT-C as screening instruments for alcohol problem use in adolescents. *Drug and Alcohol Dependence*, 188, 266–273. <https://doi.org/10.1016/j.drugalcdep.2018.04.015>
- Mushi, D., Moshiri, C., Hanlon, C., Francis, J., & Teferra, S. (2022). Missed opportunity for alcohol use disorder screening and management in primary health care facilities in northern rural Tanzania: A cross-sectional survey. *Substance Abuse Treatment, Prevention, and Policy*, 17(1), 1–11.
- Naps, M. S., Maass, D., Kranzler, H. R., Smith, R. V., Ingram, E., & Oslin, D. W. (2018). Predictors of treatment referral after AUDIT-C Screening for heavy drinking. *Addictive Disorders & Their Treatment*, 17(3), 124–133. <https://doi.org/10.1097/ADT.0000000000000134>
- National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2020). *Understanding alcohol use disorder*. <https://www.niaaa.nih.gov/publications/brochures-and-fact-sheets/understanding-alcohol-use-disorder>
- National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2021a). *Alcohol facts and statistics*. <https://www.niaaa.nih.gov/publications/brochures-and-fact-sheets/alcohol-facts-and-statistics>

- National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2021b). *College drinking*. <https://www.niaaa.nih.gov/publications/brochures-and-fact-sheets/college-drinking>
- Nichols, L. R., Samek, D. R. & McConnell, L. (2019). Key personality traits and alcohol use disorder symptoms in first- and second-year college students: Detangling antecedent from consequence. *Addictive Behaviors*, 89, 178–187. <https://doi.org.https.idm.oclc.org/10.1016/j.addbeh.2018.10.004>
- Powers, G., Berger, L., Fuhrmann, D., & Fendrich, M. (2017). Family history density of substance use problems among undergraduate college students: Associations with heavy alcohol use and alcohol use disorder. *Addictive Behaviors*, 71, 1–6. <https://doi.org/10.1016/j.addbeh.2017.02.015>
- Tomas, M. T. C., Costa, J. A. G., Motos-Selles, P., Beitia, M. D. S., & Mahia, F. C. (2017). The utility of the alcohol use disorders identification test (AUDIT) for the analysis of binge drinking in university students. *Psicothema*, 2, 229–235. <https://doi.org/10.7334/psicothema2016.271>
- U. S. Department of Veterans Affairs. (2019). *Alcohol use disorders identification test*. <https://www.hepatitis.va.gov/alcohol/treatment/audit-c.asp#S1X>
- U. S. Preventive Services Task Force (USPSTF). (2018). Screening and behavioral counseling interventions to reduce unhealthy alcohol use in adolescents and adults US preventive services task force recommendation statement. *Journal of the American Medical Association*, 320(18).
- World Health Organization (WHO). (2018). Global status report on alcohol and health. <https://www.who.int/publications/i/item/9789241565639>