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Screening and brief intervention to **prevent fetal alcohol spectrum disorders**

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ALCOHOL CONSUMPTION impacts many physical and mental health disorders, including infectious diseases, diabetes, epilepsy, hypertension, some cancers, gastrointestinal diseases, depression, anxiety, and intentional injuries.¹ Because of the relationship between alcohol use and health outcomes, Alcohol Screening and Brief Intervention (Alcohol SBI) is a practical tool nurses can use to help reduce health risks in many populations.² This is especially true for women of reproductive age, for whom the risks are even greater because alcohol can harm fetal development.

This article discusses alcohol consumption during pregnancy and informs nurses about the replicable, evidence-based practice of Alcohol SBI. Because nurses practice in many diverse settings, they're uniquely po-

sitioned to educate women of reproductive age wherever they practice nursing.^{3,4}

Increasing nurses' implementation of Alcohol SBI has significant potential for preventing alcohol-exposed pregnancies (AEPs) and fetal alcohol spectrum disorders (FASDs). Nurses must work together to make FASD a diagnosis of the past.

Nursing assessments

Nurses routinely conduct assessments to obtain information related to their patients' health issues. Systematic and objective evaluations of physical and mental health systems let nurses individualize care and identify effective and efficient interventions that meet each patient's unique needs. In this era of changes to the U.S. healthcare system, assessment is a key factor in attaining

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quality care outcomes for any patient.

One important assessment that can be easily implemented, but is all too often overlooked, is the screen for risky alcohol use. Alcohol SBI is a successful, evidence-based preventive health assessment that should be routinely implemented by all nurses for patients ranging in age from adolescence to older adulthood.⁵⁻⁹

As the most trusted healthcare professionals, nurses can promote positive health outcomes by conducting well-informed health assessments and using appropriate interventions.¹⁰ Findings from one study revealed that compared with other healthcare providers, nurses had a more positive role in delivering brief alcohol interventions.¹¹ For this reason, nurses can and should be a major resource for the implementation of Alcohol SBI and the prevention of FASD.

Alcohol consumption during pregnancy

Alcohol consumption is the leading preventable cause of birth defects and disabilities in the United States.¹² Alcohol is a teratogen that causes embryo malformation and can result in FASDs, which include fetal alcohol syndrome (FAS),



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alcohol-related birth defects, and alcohol-related neurodevelopmental disorders.¹³ (See *Sorting out the terminology*.)

These disorders cause lifelong physical, behavioral, cognitive, and/

or learning problems for the affected child.¹⁴ Physical defects include certain distinctive facial features (such as a short palpebral fissure and a thin upper lip), small head circumference, or limb abnormalities; these may be observed at birth and as the child ages.¹³

Cognitive or learning deficiencies related to prenatal alcohol exposure may not be noted until a child is older or reaches adolescence or young adulthood. Structural changes in the brain may cause impairments in learning or memory; aberrations in mood, attention, or impulse; and deficiencies in language, communication, or daily living skills. Unfortunately, some people with this disability are never diagnosed.^{13,15} Lack of diagnosis negatively affects patients' lives because of the missed opportunities to implement healthcare interventions associated with the correct diagnosis such as a brief intervention.

Although the appropriate diagnosis and treatment can benefit children with FASDs, the critical intervention is prevention. This logical choice begins with education for all women of reproductive age. Sadly, an "educational famine" is greatly associated with prenatal alcohol use, leading to various misconceptions about the safety of alcohol consumption during pregnancy such as these:

- It's okay for a woman trying to get pregnant or already pregnant to drink on occasion, such as on a holiday or after a stressful day.¹⁶
- Specific types of alcohol, such as wine or flavored coolers, aren't risky.¹⁷
- Fetal harm isn't possible if a pregnant woman hasn't been diagnosed with an alcohol use disorder.¹⁷
- Alcohol consumption is safe during the third trimester.¹⁷

Women may share their perception that these beliefs have been confirmed by a healthcare provider, even though each of these statements is false, as noted by various professional

Sorting out the terminology

Different terms are used to describe FASDs, depending on the signs and symptoms.

- **Fetal alcohol syndrome (FAS):** FAS represents the most involved end of the FASD spectrum. Fetal death is the most extreme outcome from drinking alcohol during pregnancy. People with FAS might have abnormal facial features, growth problems, and central nervous system disorders. They can also have problems with learning, memory, attention span, communication, vision, or hearing or a combination of these problems. People with FAS often have difficulties in school and trouble getting along with others.
- **Alcohol-related neurodevelopmental disorder (ARND):** People with ARND might have intellectual disabilities and problems with behavior and learning. They might do poorly in school and have difficulties with math, memory, attention, judgment, and impulse control.
- **Alcohol-related birth defects (ARBD):** People with ARBD can have any combination of problems with the heart, kidneys, or bones, or with hearing.

Source: Centers for Disease Control and Prevention. Fetal alcohol spectrum disorders (FASD). Facts about FASDs. 2017. www.cdc.gov/ncbddd/fasd/facts.html.

organizations.¹⁸ In regard to alcohol use, the CDC states that “there is no known safe amount, type, or time to drink during pregnancy” and the National Organization on Fetal Alcohol Syndrome says, “Alcohol and pregnancy. No safe amount. No safe time. No safe alcohol. Period.”^{15,16}

According to the CDC, FAS is estimated to occur in 0.2 to 1.5 infants per 1,000 live births. An exploratory study in a Midwestern community estimated a likely range from 6 to 9 per 1,000 children.¹⁹ According to the CDC, some geographic areas of the United States have notable differences in alcohol intake.²⁰

Because about 45% of pregnancies may be unplanned, logical and sound nursing practice mandates a standard of care to prevent FAS.²¹ The standard would be to simply educate women of reproductive age to not consume alcohol if they're pregnant, may want to get pregnant, or are sexually active and not using birth control.

Alcohol screening and brief intervention

Nurses can readily increase public awareness through individualized or group education for women of reproductive age. Informing these women of the dangers of an AEP can help prevent FASD. Education conducted by nurses or other informed healthcare professionals should involve the evidence-based practice model of Alcohol SBI.²²

What's a drink?

One drink equals

- 12 fl oz regular beer (5% alcohol)
- 8 to 9 fl oz malt liquor (7% alcohol)
- 5 fl oz table wine (12% alcohol)
- 1.5 fl oz distilled spirits (40% alcohol).

These amounts may not represent standard serving sizes.

Source: National Institute on Alcohol Abuse and Alcoholism. What is a standard drink? www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/what-standard-drink.

Don't hesitate to assess alcohol use while maintaining a supportive and nonjudgmental attitude. Alcohol screening identifies the level of risk associated with alcohol consumption. Results may help determine the need for a brief intervention and/or a referral for further assessment or treatment, in addition to the need to make resources available. (See *What's a drink?*)

Screening requires the use of a validated tool for measuring the risk associated with alcohol use. The T-ACE was developed by obstetricians and gynecologists to detect excessive alcohol use among pregnant women.²³ The acronym T-ACE reflects four questions related to Tolerance to alcohol, Annoying others with drinking, feeling that Cutting down is indicated, and the need for an Eye opener in the morning.

However, a more extensive screening tool that assesses frequency, quantity, and pattern of alcohol consumption is recommended. Such a tool is the 10-item Alcohol Use Disorders Identification Test (AUDIT).²⁴ With AUDIT, the first question assesses frequency; the second, quantity; and the third, pattern. These first three questions constitute the AUDIT-Consumption, or AUDIT-C, which is practical to use in clinical settings and should be followed by the remaining questions of the AUDIT if the score is positive.²⁵ See *Links to alcohol assessment tools* for these screening tools, which can be completed by the patient or administered by a nurse asking each question during an interview. The AUDIT is readily available online for implementation in the CDC's *Planning and Implementing Screening and Brief Intervention for Risky Alcohol Use: A Step-by-Step Guide for Primary Care Practices*.²⁶

Screening allows those with low or no risk of alcohol use to be ruled out immediately and the level of risk

Links to alcohol assessment tools

- T-ACE Screening Tool (4 questions): www.mirecc.va.gov/visn22/T-ACE_alcohol_screen.pdf.
- AUDIT-C (3 questions): www.integration.samhsa.gov/images/res/tool_auditc.pdf.
- AUDIT (10 questions): www.drugabuse.gov/sites/default/files/files/AUDIT.pdf.

to be identified immediately. It provides the context for a discussion of alcohol use as well as information on the level of use and insight into health and wellness considerations in which use may be problematic. One example is women wanting to become pregnant but unaware of the effects of alcohol on the fetus. Besides identifying those patients most likely to benefit from a brief intervention, screening helps clinicians identify those who need referral for further assessment.²⁴

Nurses can use the results of the alcohol screen when performing a brief intervention with the steps of a Brief Negotiated Interview.²⁷ (See *Brief intervention*.)

The results of the screening let the nurse raise the subject, the first step in the brief intervention. For example, the nurse can say, “Ms. Jordan, thank you for completing the form. Would you mind taking a few minutes to talk with me about your alcohol use and how it might relate to your visit with me today?” Upon consent, this readily leads to the next step, which is providing feedback: “Wonderful. Let me share with you what we know about alcohol and pregnancy because you shared that you're trying to get pregnant. There are some common misconceptions about the safety of alcohol use in pregnancy. We know from research that there's no safe amount, type, or time to drink alcohol during pregnancy.”

Brief intervention^{28,29}

Steps in the brief intervention process

Step 1: Raise the subject.

Step 2: Provide feedback.

Step 3: Enhance motivation.

Step 4: Negotiate and advise.

As the discussion continues, it's important to enhance the patient's motivation, which is step three of the brief intervention. The nurse explores the patient's ambivalence about making a change or continuing alcohol consumption. A motivational approach, using positive and affirming language, is used to develop discrepancy between the "good" and "not so good" things the patient identifies about alcohol use.

The nurse listens and summarizes what's been said. For example, "So on the one hand, it's fun to relax when you're out and enjoy a few drinks, and on the other hand, you want to have a healthy baby. Because we've talked about your potential for pregnancy and the harm to the baby when you drink alcohol, where does this leave you?"

The last step is to negotiate and advise. For example, "In our discussion you identified an alternative to drinking alcohol as drinking a club soda with lime when you're out. This is a solid compromise for enjoying a drink with friends as you monitor your pregnancy testing. Is that accurate?" Then allow the patient time to reflect and respond to this summary

statement. In closing the brief intervention, indicate a plan to follow-up, "Let's plan to meet again in a few weeks to see how everything is progressing for you."

The steps described in the brief intervention reflect motivational interviewing techniques, the core of an effective intervention.

Addressing and reducing ambivalence about alcohol use is instrumental when working with women who are pregnant or trying to become pregnant. The mutual goal of eliminating an AEP and eradicating FASD can be a reality in as little as 5 minutes, the time it takes any nurse to conduct the brief intervention as exemplified. One by one, nurses can help significantly lower the incidence and prevalence of both AEPs and FASDs.

For women who may have an alcohol use disorder, it's important to ensure that further evaluation and/or specialty treatment is provided. Available resources include the website of the Substance Abuse and Mental Health Services Administration, which is designed to find a service that might help. (See <https://findtreatment.samhsa.gov>.) Contacts with local psychologists, counselors, and hospitals that provide services should also be made available to benefit women who may need additional help. Information about Alcoholics Anonymous can be found at www.aa.org.

To prevent an unplanned pregnancy (especially for women who aren't ready to abstain from alcohol),

a discussion about contraceptive use should be incorporated into the brief intervention. As a cost-effective, acceptable, evidence-based practice, Alcohol SBI should be a standard of nursing care for all women who are or may become pregnant.

Working together

As trusted healthcare professionals, nurses are accountable to those patients who seek their care and put their trust in nurses' hands. Alcohol SBI is an evidence-based practice that can promote both the health of women of reproductive age and the future health of unborn children. Alcohol SBI is an essential component of nursing practice to educate women who are or may become pregnant. ■

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