Alcohol Use in Adolescents (13 Through 17)  
Screening and Intervention Guideline

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Last guideline approval: October 2023

Guidelines are systematically developed statements to assist patients and providers in choosing appropriate health care for specific clinical conditions. While guidelines are useful aids to assist providers in determining appropriate practices for many patients with specific clinical problems or prevention issues, guidelines are not meant to replace the clinical judgment of the individual provider or establish a standard of care. The recommendations contained in the guidelines may not be appropriate for use in all circumstances. The inclusion of a recommendation in a guideline does not imply coverage. A decision to adopt any particular recommendation must be made by the provider in light of the circumstances presented by the individual patient.
Changes as of October 2023

- The Screening to Brief Intervention (S2BI) has replaced the CRAFFT as the tool for screening adolescents for alcohol use and risk of substance use disorder (SUD), and has been implemented in the Integrated Mental Health screening tool.
- The CRAFFT may be used after a positive S2BI screening for supplemental SUD risk assessment.

Background

There is no healthy level of alcohol consumption for adolescents (ages 13 through 17). Many adolescents engage in experimentation with alcohol use. The National Institute on Alcohol Abuse and Alcoholism (NIAAA) reported in 2019 that the 30-day prevalence of alcohol use was 7.9% for 8th graders, 18.4% for 10th graders, and 29.3% for 12th graders. The risks of underage drinking include impaired judgment, serious injuries, and increased risk for physical and sexual assault (NIAAA 2019).

Definition

**Alcohol use disorder (AUD)** is a problematic pattern of alcohol use leading to clinically significant impairment or distress with at least two symptoms over the last 12-month period. AUD is a DSM-5 diagnosis that ranges in severity from mild (2–3 symptoms) to moderate (4–5 symptoms) to severe (6–11 symptoms); for a list of DSM-5 diagnostic criteria, see Table 6 (p. 10). The Alcohol Symptom Checklist in KP HealthConnect has corresponding questions.

Previously, DSM-IV used the terms “alcohol abuse” and “alcohol dependence,” but research showed that symptoms of abuse and dependence were all symptoms of a single disorder.

Role of Primary Care

Primary Care physicians (PCPs) are often the only medical providers who interact with adolescents who drink, placing them in a prime position to identify and counsel these patients, and to help prevent alcohol-related morbidity and mortality. For teens at low risk of AUD, PCPs can provide preventive care and help to modify drinking behavior. However, for teens who are at high risk for AUD, PCPs should engage mental health professionals for further evaluation and care recommendations. If the adolescent is willing to meet someone at the time of the visit, engage Integrated Mental Health Social Work (IMH SW) for real-time connection (warm handoff). Otherwise, put in an order for a Mental Health referral.

Confidentiality Considerations for Adolescents

**Patients at least 13 years of age may consent to confidential treatment** for substance use without parental involvement. However, logistical barriers may make this challenging. Patients seeking treatment will usually permit limited information sharing with their families.

**For patients who agree to a Mental Health referral:** In the referral, please indicate the best number for contacting the teen directly, and, if possible, another good contact for reaching the teen (e.g., parent, friend, another trusted adult). In the notes of the referral, please also indicate if and which parents are involved with care. Let the teen and parents (if involved) know what to expect. For most patients, this will be an outreach call from a member of our Mental Health Access Center, who will ask to talk with the teen. The teen will be scheduled with a licensed mental health clinician, who will assess the teen and make treatment recommendations depending on their needs. This may be outpatient treatment with individual and/or group sessions. For some, it will be inpatient treatment. Patients have options, and an assessment
with a mental health specialist will help to determine which is most appropriate. Specialty substance use
treatment for teens is primarily provided by Kaiser Permanente–contracted agencies. When parents are
involved in coordinating substance use/mental health services for teens, the licensed mental health
clinician will also attempt to speak with the parent to gather additional information and/or coordinate care.

A diagnosis of alcohol use disorder (AUD) must be entered as an encounter diagnosis in the patient’s
medical record (it can be a secondary diagnosis). Note: Remember that all visit notes and associated
After Visit Summaries are visible to parents unless the entire encounter is marked confidential. For more
information, see the Teen Confidentiality at KPWA Practice Resource on the KPWA Clinical Library.

With the patient’s permission, tell the parent: “[The patient] has been honest with me about their use of
alcohol and has agreed to talk to a specialist about it.” Avoid getting into specific details related to the
use.

For patients who are not willing to see a mental health provider, including an IMH SW, and request
confidentiality: If you deem it safe to maintain confidentiality (see following paragraph), consider
scheduling them for a 1-month follow-up with you. Teens may be more likely to follow up if you pair this
with follow-up for a medical concern that their parent knows about (teens often have acne, dysmenorrhea,
or other conditions they are learning to self-manage). If the patient is willing, ask them to commit to a 1-
month trial of abstinence or decreased use in between visits. The results may help to inform next steps.

When an adolescent’s safety is at risk, it is necessary to breach confidentiality and involve their
family. In almost all situations when an adolescent’s alcohol use has escalated to this level, the parents
are already aware. Determining what constitutes a safety risk is a matter of the individual provider’s
clinical judgment and should be based on all available information, not the results of a screening
questionnaire alone. Examples of safety risk include daily use, hospitalization due to alcohol use,
polysubstance use, escalating use, drinking and driving in the absence of a commitment to stop, and the
presence of serious comorbid conditions such as depression, suicidality, or poorly controlled insulin-
dependent diabetes.

When it is necessary to breach confidentiality, it is important to inform the patient as soon as possible that
you intend to do so, and to review with the adolescent the exact information you intend to disclose and
the recommendations you will make. Speaking with the parents and patient at the same time may help
retain the patient’s trust.

Screening adolescents (13-17) with the S2BI

According to the U.S. Preventive Services Task Force (2018), there is insufficient evidence to recommend
for or against screening adolescents to prevent or reduce alcohol misuse. Based on expert opinion, this
guideline recommends that clinicians screen adolescents annually using the S2BI, a screen for frequency
of alcohol, nicotine/tobacco, cannabis and other drug use in the past year. The S2BI screen is included in
the Annual 13-17 Integrated Mental Health Screen, along with the PHQ-9A.

Evidence supports the use of the S2BI as a screening tool for identifying adolescents at risk for a
substance use disorder (Levy 2021), with excellent sensitivity and specificity for identifying adolescents
with moderate to severe AUD. If alcohol is the most frequent substance used, the score on the S2BI
reflects risk of an AUD. If alcohol is not the most frequent substance used, the score reflects the risk of an
SUD, including AUD, with similar guidelines for next steps.
Table 1. Screening to Brief Intervention (S2BI) to detect high risk substance use behaviors

<table>
<thead>
<tr>
<th>In the past year, how many times have you used:</th>
<th>Never</th>
<th>Once or twice</th>
<th>Monthly</th>
<th>Weekly or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nicotine/Tobacco (cigarettes, e-cigs, vapes, Juul)?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Alcohol?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Cannabis (smoked, vaped, edibles)?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Other drugs and/or medications not as intended?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 2. Interpretation of the S2BI and next steps

<table>
<thead>
<tr>
<th>Highest frequency of substance use reported</th>
<th>Risk of SUD</th>
<th>Provider response *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never (0)</td>
<td>None</td>
<td>Brief intervention</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reinforce teen choices/strategies.</td>
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<tr>
<td></td>
<td></td>
<td>Provider script</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“For some of my patients it can be challenging to not use alcohol or drugs, especially if people around them do. It is great you have thought about this issue and it seems like you are doing a good job avoiding high-risk situations. If that ever changes, I hope you trust me enough to tell me.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“There may be times when drugs and alcohol seem tempting, especially at your age. As your doctor, I’m proud of you for making a tough choice that can also positively affect your health.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Avoiding tobacco, alcohol and drugs is an excellent choice — it’s one of the best ways to protect your health.”</td>
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<td></td>
<td></td>
<td>“It’s great that you are choosing not to use substances. Have you ever been offered?” If yes, follow with: “What happened and how did you decide to say no?” If no: “That’s great. It could happen in the future so it’s good to be prepared and think through what you would do.”</td>
</tr>
<tr>
<td>Once or twice (1)</td>
<td>Low</td>
<td>Brief intervention</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Provide cessation advice:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• No use is best for health</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Accurate info on harms of use</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Tailor response to teens and goals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Provider script</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“I would like to talk about your responses to the screener to find out more about your experiences with alcohol or other drugs. Would that be okay?”</td>
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<td></td>
<td></td>
<td>“We know that use of alcohol and other drugs can adversely affect healthy brain development, which continues into your 20s. There is no safe level of alcohol consumption in teens. In addition, the younger people are when they start to use, the more likely they are to have serious problems from their use later in life. However, every time you use alcohol and drugs, they directly affect your ability to think clearly and...”</td>
</tr>
</tbody>
</table>
people sometimes make decisions when they are drinking/using that they later regret.”

“As your health provider I recommend not using alcohol or drugs.”

“Did you know use of (x) can impact your (grades, sports, diabetes, asthma, depression, etc.)?”

<table>
<thead>
<tr>
<th>Monthly (2)</th>
<th>Moderate Brief intervention</th>
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<tbody>
<tr>
<td></td>
<td>• Provide cessation advice.</td>
</tr>
<tr>
<td></td>
<td>• Reduce use and risky behaviors:</td>
</tr>
<tr>
<td></td>
<td>o Explore interest in reducing use and how use impacts teen’s life (benefits vs downsides)</td>
</tr>
<tr>
<td></td>
<td>o Ask how teen might make changes</td>
</tr>
<tr>
<td></td>
<td>• Consider handoff to IMH SW.</td>
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</table>

Next steps
• Consider the CRAFFT for supplemental SUD risk assessment.
• Explore other drug use if reported.
• Encourage teen to include parent/guardian in care plan.

Provider script
“What are the good things about using (x)? What are the not so good things?”

“Have you ever quit or cut back before? What were your reasons?”

“How would you go about making a change in your use, if you decided to?”

“How can I best support you?”

<table>
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<tr>
<th>Weekly or more (3)</th>
<th>High Brief intervention</th>
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<tbody>
<tr>
<td></td>
<td>• Provide cessation advice.</td>
</tr>
<tr>
<td></td>
<td>• Reduce use and risky behaviors.</td>
</tr>
<tr>
<td></td>
<td>• Reinforce options and support of teen.</td>
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<td></td>
<td>• Refer to Mental Health. Consider warm handoff to IMH SW.</td>
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Next steps
• Consider the CRAFFT for supplemental SUD risk assessment
• Explore other drug use if reported
• Encourage teen to include parent/guardian in care plan

Provider script
“I’m concerned that your use may be causing/worsening your (x). (Connect use with any known negative medical or mental health consequences, such as social anxiety or sleep problems.)”

“I’d like to introduce you to another member of our care team who works with many of my patients. They may be helpful in discussing other services that could be of interest to you. What are your thoughts?”
Management of Comorbidities

For patients with suspected or diagnosed alcohol use disorder, treatment/management of one or more comorbidities can occur either simultaneously or sequentially. There is insufficient evidence to recommend one way over the other.

Screen all patients with suspected or diagnosed health concerns related to alcohol use for the following comorbidities:

- Anxiety: Screen through clinical interview; consider using the GAD-7.
- Depression: Screen using the PHQ-9 for Adolescents (PHQ-9A), which is included in the Annual 13-17 Integrated Mental Health Screen, with the S2BI. Evidence suggests that patients with depression are less likely to be adherent to recommended management plans and less likely to be effective at self-management. See the Depression Guideline for additional guidance. Patients with major depression can be treated in Primary Care or offered a referral to MHW for counseling and/or drug therapy.

About Brief Interventions

Primary Care teams can help adolescents to modify drinking behavior and reduce the harms associated with drinking, such as driving while intoxicated or unwanted sex. All adolescents should be offered brief interventions in the form of anticipatory guidance for those who report no substance use on the S2BI (score 0) or brief interventions in the form of counseling for those who report any past year substance use (scores 1–3).

There is good evidence that brief alcohol interventions lead to significant reductions in self-reported alcohol use in adolescents (Tanner-Smith and Lipsey 2015). In young adults and college students, evidence suggests that brief interventions result in greater reductions in alcohol consumption and heavy drinking days compared with usual care (Jonas 2012).

For adolescents, the primary goals of brief interventions are to prevent or reduce alcohol use and to reduce harms.

S2BI Score 0: Anticipatory Guidance

<table>
<thead>
<tr>
<th>Table 3. Anticipatory guidance for S2BI score 0 (no past year use)</th>
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<tr>
<td><strong>Key considerations</strong></td>
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<tr>
<td><strong>Talking points</strong></td>
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</table>
### S2BI Score 1–3: Brief Counseling Interventions and Referral

| Table 4. Characteristics of brief counseling interventions |
|-----------------|-----------------|
| **Duration**    | 5 to 15 minutes |
| **Number of sessions** | 1 to 4 |
| Repeated sessions are more effective than a one-time intervention. Use clinical judgment to determine the appropriate follow-up interval. |
| **Clinicians**  | Primary Care physicians, nurses, medical assistants, health educators |
| **Target population** | Adolescents who report any substance use in the past year (S2BI scores 1–3). |
| **Goal**        | Increase patient readiness for referral to MHW |

<p>| Table 5. Brief counseling interventions for S2BI scores 1–3 |
|-----------------|---------------------------------------------------------|
| <strong>Express concern</strong> | Review the S2BI score with patient. |
| Discuss with the patient in an empathetic, patient-centered manner that—based on the screen—you are concerned about their use of alcohol. |
| ▪ “Young people who have this score may be drinking in a way that could cause problems at home or at school, or with the law.” |
| ▪ “I’m concerned that you are drinking enough to cause other serious problems in your life.” |
| Acknowledge that alcohol use has pros and cons for the patient. Ask what they like most—and least—about drinking. |
| When the parent is also in the room, ask if they have any concerns about the adolescent’s moods, school, friends, or alcohol use in general (with no disclosure of the actual patient conversation). |
| <strong>Provide feedback linking drinking to safety</strong> | Describe how the drinking might impact the patient’s health and safety: |
| ▪ “Mixing alcohol and drugs or mixing different drugs is dangerous.” |
| ▪ “Unwanted sex (and sexual abuse) is more likely to happen after drinking alcohol or using drugs.” |
| ▪ “Alcohol affects healthy brain development, which continues into your 20s.” |
| ▪ “Drinking from an early age increases the risk for serious alcohol problems later in life.” |
| ▪ “Alcohol directly affects your brain and your ability to think clearly.” |
| ▪ “Teens sometimes make decisions or do things when they are drinking/using that they later regret.” |
| <strong>Offer advice</strong> | Advise the patient: |
| ▪ “Do not drink and drive. Do not ride in a car driven by someone who has been drinking. Make a plan for safe transportation.” |
| ▪ “Plan how to say no if you are offered alcohol or drugs.” |</p>
<table>
<thead>
<tr>
<th>Elicit response, assess readiness to change, and support goal setting, if ready</th>
<th>Support the patient in selecting a goal (e.g., monitoring drinking or filling out a drinking diary, decreasing drinking, or identifying triggers). The NIAAA Rethinking Drinking website can be useful: rethinkingdrinking.niaaa.nih.gov. For adolescents who drink, the ideal goal is abstinence, but patients should be engaged in thinking about their drinking even if they are interested only in reducing their drinking or if they are not interested in making changes now.</th>
</tr>
</thead>
</table>
| Encourage referral | Tell the patient:  
- “I would hate to see alcohol get in the way of your future and the things you care about [refer to patient’s goals]. I would like you to consider talking to someone who could help you explore your use of alcohol and help you decide whether or not it is a problem. If it is, you could work together to come up with a plan to deal with it. Are you willing to go?”  
Offer warm handoff to IMH SW or refer to Mental Health unless the patient is reluctant to see another provider.  
- Offer to make a real-time connection with an IMH WS or refer the patient to a behavioral health professional for assessment of alcohol use and/or other potential mental health comorbidities, or for treatment of alcohol use disorder. Mental Health is also able to process authorization for drug and alcohol assessment and treatment with providers in the community who specialize in working with teens.  
- The Adolescent Center is an option for patients with intersecting mental health and medical diagnoses. |

### Gauging patient response to one or more brief interventions

Although referral to Mental Health is preferred, some patients may not be willing to see another provider. For these patients, continue to offer regular brief interventions. At the beginning of each visit, gauge patient response to the brief interventions.

If adolescents are responding positively to brief interventions by increasing their readiness to change drinking behavior and/or reducing drinking:
- Reinforce the patient’s progress and congratulate on changes to drinking behavior.  
- Continue with brief interventions as needed.  
- Rescreen annually with the S2BI through age 17.

If adolescents are not responding to brief interventions, consider assessing them for alcohol use disorder (see Assessment, p. 10).

If patient meets AUD criteria,
- Explain the diagnosis, and  
- Refer to a chemical dependency program through Mental Health.

If patient does not meet AUD criteria,
- Continue with brief interventions, and  
- Refer to Mental Health.
Resources for Changing Alcohol Use

Teen Link Help Line
https://www.teenlink.org/category/substance-use-prevention-resources/resources-for-youth-substance-use-prevention-resources/
Confidential and anonymous, available nightly from 6 to 10 p.m.
Toll-free: 1-866-TEENLINK (833-6546)

Resource guides:
  Where to Turn for Teens https://www.teenlink.org/resources/
  Not a Moment Wasted https://notamomentwasted.org/#slide-0

Washington Recovery Help Line
http://www.warecoveryhelpline.org
Confidential and anonymous. Available 24 hours. Support and resources for youth struggling with substance abuse, problem gambling, and/or mental health.
Toll-free: 1-866-789-1511

Greater Seattle Alanon/Alateen
http://www.seattle-al-anon.org
Support groups for youth struggling with addiction in King, Pierce, Snohomish and Kitsap counties.
24-Hour hotline: 206-625-0000
Assessment for Alcohol Use Disorder

For most adolescents, assessment for alcohol use disorder (AUD) will be done by MHW. For patients who are unwilling to be referred, assessment for AUD can be done by the Primary Care provider.

*Note: Use the Alcohol Symptom Checklist (Table 6)—not CRAFFT scores—for diagnosing alcohol use disorders.*

The DSM-5 lists 11 symptoms as criteria for diagnosing alcohol use disorder. The severity of the alcohol use disorder is defined as:

- **Mild:** 2–3 symptoms present
- **Moderate:** 4–5 symptoms present
- **Severe:** 6 or more symptoms present

<table>
<thead>
<tr>
<th>Table 6. Alcohol Symptom Checklist (also available as KP HealthConnect flow sheet) Based on DSM-5 criteria. 2 or more “yes” responses are diagnostic of AUD.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Did drinking the same amount have less effect than it used to? Or did you have to drink more alcohol to feel the effect you wanted? Please answer “yes” if either is true for you.</td>
</tr>
<tr>
<td>2. Did you have an upset stomach or get sweaty or nervous when you weren’t drinking or tried to cut down? Did you drink alcohol or take something to help you feel better? Please answer “yes” if either is true for you.</td>
</tr>
<tr>
<td>3. Did you have times when you drank more or for longer than you wanted to?</td>
</tr>
<tr>
<td>4. Did you want to cut back or stop drinking alcohol, but couldn’t?</td>
</tr>
<tr>
<td>5. Do you spend a lot of time getting alcohol, drinking, or feeling hungover?</td>
</tr>
<tr>
<td>6. Did you continue to drink even though you thought it might be causing physical or mental problems—or making them worse?</td>
</tr>
<tr>
<td>7. Did drinking make it harder for you to keep up with your responsibilities at work, school, or home?</td>
</tr>
<tr>
<td>8. Did you do dangerous things more than once after drinking—like drive a car or operate machinery?</td>
</tr>
<tr>
<td>9. Did you drink alcohol even though you thought it might be causing problems with your family or other people?</td>
</tr>
<tr>
<td>10. Did you have strong desires or cravings for alcohol?</td>
</tr>
<tr>
<td>11. Did you spend less time working, enjoying hobbies, or being with others because of your drinking?</td>
</tr>
</tbody>
</table>

If you are unsure of the diagnosis, consider an E-Consult with Mental Health.

Management of Alcohol Use Disorder

Explain the diagnosis and refer the patient to a substance use disorder program by having them call MHAC. Encourage the patient to make an appointment as soon as possible, and make a follow-up appointment with the patient to confirm that he or she engaged with the specialist. The follow-up can be by phone or in person. Let the patient know what to expect: weekly sessions (individual and/or group) for at least 3 months.

There is insufficient evidence on the efficacy and safety of pharmacotherapy in treating alcohol use disorder in adolescents.
Evidence Summary

The Alcohol Use in Adolescents Screening and Intervention Guideline was developed using an evidence-based process, including systematic literature search, critical appraisal, and evidence synthesis.

As part of our improvement process, the Kaiser Permanente Washington guideline team is working towards developing new clinical guidelines and updating the current guidelines regularly. To achieve this goal, we are adapting evidence-based recommendations from high-quality national and international external guidelines, if available and appropriate. The external guidelines should meet several quality standards to be considered for adaptation. They must: be developed by a multidisciplinary team with no or minimal conflicts of interest; be evidence-based; address a population that is reasonably similar to our population; and be transparent about the frequency of updates and the date the current version was completed.

In addition to identifying the recently published guidelines that meet the above standards, a literature search was conducted to identify studies relevant to the key questions that are not addressed by the external guidelines.

External guidelines eligible for adapting
2018 United States Preventive Services Task Force (USPSTF) Unhealthy Alcohol Use in Adolescents and Adults: Screening and Behavioral Counseling Interventions
2021 VA/DoD Clinical Practice Guidelines for the Management of Substance Use Disorders
2021 Australian Guidelines to Reduce Health Risks from Drinking Alcohol
2020 ASAM Clinical Practice Guideline on Alcohol Withdrawal Management

Key questions addressed in the KPWA evidence review

1. **What is the performance of the screening to brief intervention (S2BI) in adolescents?**
   A study (Levy 2021) assessed S2BI’s sensitivity and specificity for identifying alcohol and cannabis use disorders (AUD and CUD) in adolescents presenting for primary care. Participants (N=517) aged 14–18 years were included and completed S2BI. They also completed the Composite International Diagnostic Interview (CIDI), and anxiety and depression screens.

   Of the participants, 2.9% had AUD and few had severe AUD (0.8%). For the detection of any AUD, the sensitivity was 53.3%, specificity 94.2%, PPV 21.6%, and NPV 98.5%. The S2BI had 100% sensitivity and 93.6% specificity for identifying moderate/severe AUD, and 90.0% sensitivity and 89.0% specificity for identifying moderate/severe CUD. The S2BI had 81.4% sensitivity and 92.0% specificity for identifying any CUD (PPV = 47.9%; NPV = 98.2%).

2. **How effective are electronic brief interventions (eBIs) (mobile apps and web-based interventions) in reducing alcohol consumption among adolescents?**
   Low-quality evidence from three systematic reviews suggest that mobile apps and web-based interventions may reduce hazardous alcohol consumption and promote behavior change among adolescents. The main findings of the systematic reviews are reported below.

   **de Sousa et al., 2022** aimed to explore the efficacy of web-based interventions among adolescents regarding physical activity, eating habits, tobacco and alcohol use, sexual behavior, and quality of sleep. Fourteen studies were included. Thirteen of them suggested that web-based interventions are effective in promoting health behavior change among adolescents. However, according to the authors, the evidence is of low quality owing to small sample sizes and short length of follow-up.

   Specifically, four studies assessed alcohol consumption. All of them showed that web-based interventions may decrease hazardous alcohol consumption. However, the studies were of low quality.

   The objective of **Kazemi et al., 2021** was to evaluate the efficacy of app-based interventions delivered by mobile devices (smartphones) on substance abuse in adolescents and adults. Most interventions targeted alcohol reduction. Seventeen studies were included. The studies demonstrated that there is some
evidence of efficacy in decreasing substance use. However, high-quality studies are still needed to confirm the findings.

**Hutton et al., 2020** investigated the effectiveness of mHealth technology use in influencing alcohol-related behaviors of young people (aged 12–26 years) without known alcohol addiction. mHealth included social networking sites, SMS and mobile phone applications already included in the previous study (Kazemi 2021). Eight studies focused on web-based interventions and two studies targeted app interventions. Eighteen studies were included, with half reporting a reduction in alcohol consumption. The findings should be interpreted with caution due to power issues and short length of follow-up.

**References**


Guideline Development Process and Team

Development process
The guideline team developed the Alcohol Use in Adolescents Screening and Intervention Guideline using an evidence-based process, including systematic literature search, critical appraisal, and evidence synthesis.

This edition of the guideline was approved for publication by the Guideline Oversight Group in October 2023.

Team
The Alcohol Use in Adolescents Screening and Intervention Guideline development team included representatives from the following specialties: Adolescent Health, Addiction and Recovery Services, Family Medicine, Kaiser Permanente Washington Health Research Institute, Mental Health and Wellness, Ob/Gyn and Midwifery, Patient Safety, Pediatrics, Pharmacy, and Urgent Care.

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Guideline coordinator: **Avra Cohen, RN, MN**, Clinical Improvement & Prevention

Said Adjao, MD, MPH, Clinical Epidemiologist, Clinical Improvement & Prevention
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