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REVIEW

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Managing Problem Drinking: Screening Tools and Brief Interventions for Primary Care Physicians

Abstract: *A high percentage of patients seen in primary care clinics partake in excessive alcohol consumption. It leads to numerous health problems and remains one of the leading risk factors for chronic disease. Despite the health concerns, screening for and intervening in patients' alcohol misuse has yet to become standard practice in many primary care settings. There is well-established empirical evidence that brief doctor-patient interactions reduce alcohol consumption among excessive drinkers in primary care settings. This article draws on randomized controlled trials and literature on screening techniques, motivational interviewing, the transtheoretical model of behavior change, and medication-assisted treatments to enhance brief intervention methodology. Through this review, evidence-based practical strategies are presented to primary care doctors that reduce alcohol consumption in patients screened as problem drinkers. Referral*

information for those individuals with severe drinking problems is included. We propose that short, multicomponent interventions are most effective when they include interventions that utilize the lifestyle medicine philosophy, a nonjudgmental therapeutic alliance, and account for patient concerns more directly.

Introduction

Lifestyle medicine seeks to accomplish more than the prevention and treatment of illnesses; it beckons lifelong learning and growth—in mind, body, and spirit. The process involves, among other things, developing healthy habits around moving, sleeping, eating, and drinking alcohol. For the latter, there is no way to

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soft-pedal the facts. In the United States, approximately 69% of Americans partake in alcohol consumption, 25% abuse the substance, and 8% have a diagnosable

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alcohol use disorder (AUD).^{1,2} Excessive drinking is a common, challenging problem and one of the top 3 leading causes of death, in terms of the actual behavior that leads to mortality. Although most medical schools spend a significant amount of time discussing the damage that alcohol causes to the liver, the heart, and the brain, there is relatively little time spent teaching medical students how to effectively counsel patients on how to reduce their harmful alcohol use.³

Binge drinking—defined as alcohol consumption that exceeds the National Institute on Alcohol Abuse and Alcoholism's (NIAAA) guidelines of no more than 4 drinks per day for men and no more than 3 drinks per day for women⁴—does not in and of itself constitute an AUD, the serious medical condition that often necessitates referral to an addiction specialist.^{5,6} Given that two-thirds of problem drinkers are not suffering from this addictive disorder, general practitioners are on the frontlines of combating at-risk drinking. However, according to a national survey, only 20% of primary care physicians feel “very prepared” to identify their patients’ risky alcohol use, which is a significantly lower amount than the doctors who report feeling “very prepared” to detect diabetes (82%) or hypertension (83%).⁷

Lack of training is one of the reasons for the lack of preparedness, which causes some primary care doctors to feel uncomfortable or hesitant discussing their patient’s at-risk drinking. Compounding the problem is the fact that clinics do not routinely screen for alcohol use. A national survey of 18- to 39-year-old at-risk drinkers discovered that only about half of the respondents were questioned about drinking habits during doctor visits.⁸ Of those individuals who were asked about binge drinking, only 21% received feedback or counseling. These data point to a gap in medical care, which means that there is an opportunity to enhance and improve current counseling practices.

A brief conversation that incorporates motivational interviewing principles to address at-risk drinking, often called

“brief interventions,” is immensely beneficial and superior to many other techniques. This was the conclusion of *The Handbook of Alcoholism Treatment Approaches*, a book widely considered to offer the most comprehensive comparisons of treatment approaches available to problem drinkers.⁹ The authors found brief interventions to be associated with the best treatment outcomes among 48 scientifically reviewed treatment options. As a caveat, brief interventions are not intended to treat patients with severe forms of AUD, but rather to help at-risk drinkers moderate their drinking. When conducted with the appropriate patients, this counseling method reduces a broad range of negative health consequences and can be successfully performed after relatively limited training.^{3,10} These interactions are short, lasting from 5 minutes of brief advice to 15 to 30 minutes of brief counseling. They are designed to motivate patients to change personal behavior by helping them understand why their excessive drinking puts them at risk and help them develop healthy habits that align with lifestyle medicine principles.

Effectiveness

Numerous studies provide support that brief interventions are effective. Of these studies, randomized controlled trials (RCTs) are broadly viewed as the gold standard for evaluating interventions because of their ability to ascertain a cause-effect relationship between a treatment and its outcome.¹¹ Two independent meta-analyses of brief intervention RCTs occurred in 2007 and 2012, respectively.^{12,13} Both meta-analyses concluded that brief interventions reduce alcohol consumption compared with control conditions. One primary care RCT noted a 24% decline in heavy drinking.¹⁴ Another RCT found that a 30-minute brief intervention, compared with the control group that received standard care, led to a 50% reduction in the number of driving under the influence (DUI) arrests during the following 3

years.¹⁵ Results from several other studies indicate brief interventions for at-risk alcohol use in clinical settings are overwhelmingly positive.¹⁶⁻²⁰

The diverse and compelling scientific evidence supporting the use of brief interventions has prompted several national medical societies to endorse this approach, including (a) the American Academy of Pediatrics, which recommends regular screening for alcohol consumption and utilizing non-judgmental conversations; (b) the American Society of Addiction Medicine, which contends that screening and brief interventions are effective methods for identifying alcohol-related problems early and preventing the development of AUD; and (c) the American Medical Association, which advises primary care physicians in their Guidelines for Adolescent Preventive Services to ask adolescent patients annually about alcohol consumption.²¹⁻²³ Integrating the 2 simple measures of screening and intervening into routine medical check-ups has widespread support and proactively reduces risky drinking prior to negative consequences, such as DUIs and the development of AUD.^{3,24}

Screening

There are several simple screening tools available to detect at-risk drinking. Screening began in the 1930s and provides a means for physicians to identify patients who would benefit from a brief intervention as well as those who need a referral to specialty addiction treatment.^{25,26} The NIAAA advocates the use of a single question screening test that simply asks, “How many times in the past year has a man consumed five or more drinks in one day, or four or more drinks in a day for women?”²⁷ Any answer other than 0 is considered to be a positive screen.²⁸ A second straightforward screening tool that can identify alcohol-dependent adolescent, adult, and elderly drinkers is the CAGE Questionnaire.^{29,30} Developed in 1984, this 4-item alcohol screening tool received its acronym from the questions it asks about:

1. Have you ever felt you should Cut down on your drinking?
2. Have people Annoyed you by criticizing your drinking?
3. Have you ever felt bad or Guilty about your drinking?
4. Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover (Eye-opener)?

Answering yes to one or more questions suggests that the patient may have an AUD, and further diagnostic assessment to determine an appropriate course of action is warranted.^{26,28}

Transtheoretical Model

The transtheoretical model of behavior change is a helpful conceptual model to utilize during patient-doctor interactions. It was developed by James Prochaska, John Norcross, and Carlo DiClemente.³¹ At the heart of this model are the 6 stages of change: (a) precontemplation, (b) contemplation, (c) preparation, (d) action, (e) maintenance, and (f) termination. A patient in precontemplation is not ready, willing, or able to consider changing their consumption of alcohol. In this stage, the practitioner can ask the patient what they know about drinking, provide healthy guidelines, and give information on how alcohol affects his or her body, brain, and behavior. Asking if the patient knows about how alcohol impairs judgment and how much alcohol it takes to dampen people's reflexes are 2 questions that could get the precontemplator thinking. A contemplator is someone who is already thinking about quitting drinking but has not made specific plans to quit within the next 6 months or so. People can remain in contemplation for months or even years. Considering the pros and cons of quitting or cutting down on drinking would be useful for someone in this stage. Someone in preparation is ready and is planning to quit or cut down. They usually need a solid plan. In this instance, discussing the various available social supports such as family, friends, or Alcoholics Anonymous and

Moderation Management support groups may be useful.

Several medication-assisted treatments are available to aid patients with AUD during, and beyond, the preparation stage of change. Current Food and Drug Administration–approved pharmacotherapies include acamprosate, disulfiram, and naltrexone.³² Additionally, long-acting injectable naltrexone was approved in 2006 to treat the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) fourth edition disorder of alcohol dependence.³³ In RCTs, long-acting naltrexone was well tolerated by patients and led to a 25% to 37% decrease in heavy drinking days compared with placebos.^{34,35} Furthermore, long-acting naltrexone was found to be compatible with both counseling and support groups.³⁶ To learn more about medication-assisted treatments, the March 2015 publication *Medication for the Treatment of Alcohol Use Disorder: A Brief Guide* is available free of charge from the Substance Abuse and Mental Health Services Administration's website. Investigating what the patient has tried in the past (eg, social supports or pharmacotherapies) and what he or she thinks will work best now, in his or her current situation, is imperative for a person to progress beyond the preparation stage.

A patient in the action stage of change has already started to cut down on or quit his or her drinking all together. They often respond to positive feedback. Perhaps looking at liver function tests or body weight might help reinforce a patient's decision to reduce or quit his or her drinking. Asking the patient what they notice and what they like about not drinking is also an effective way to facilitate and sustain changed behavior. People in maintenance have been recovered for 6 months or more. They do well with reinforcement. Collaborating with them and discussing how they think they can sustain their abstinence is a useful conversation for someone in this stage. The termination stage means that there is no longer a problem. However, many people feel that with alcohol, as well as other

addictive activities, there is no real termination stage and people are in maintenance throughout their lives because the pull to drink or the temptation to go back to old habits can be strong.³¹ The transtheoretical model of change is a useful tool that complements brief interventions.

Brief Interventions

For those patients screening positive for the type of excessive drinking that does not constitute a serious AUD, a 5- to 30-minute brief intervention is a cost-effective approach to reducing risky use.^{3,9} Although a variety of methods exist, one particular approach suggests 6 elements that are critical to an effective brief intervention and are all verified through empirical research.^{3,37,38} The acronym FRAMES was coined to summarize these components:

1. Feedback is given to the individual about personal risk or impairment.
2. Responsibility for change is placed on the participant.
3. Advice to change is given by the lifestyle medicine physicians.
4. Menu of alternative self-help or treatment options is offered to the patient.
5. Empathic style is used during counseling sessions.
6. Self-efficacy or optimistic empowerment is generated within the counseled individual.

A brief intervention consists of 5 basic steps that incorporate FRAMES, and they remain consistent regardless of the number of sessions or the length of the intervention²⁸:

1. introducing the issues in the context of the client's health.
2. screening, evaluating, and assessing;
3. providing feedback;
4. talking about change and setting goals; and
5. summarizing and reaching closure.

Brief interventions administered in an empathetic counseling style that includes

active listening are more effective than those that rely on coercion or confrontation.³⁹

A complementary approach to brief interventions is motivational interviewing, which has strong empirical support in helping people with alcohol problems, addictions, and a wide range of target behaviors.^{40,41} William Miller and Stephen Rollnick developed this interviewing style when working with patients with addictive behaviors. There are some basic principles that lifestyle medicine practitioners can utilize when conducting a brief intervention on problem drinkers. One of the main tenets is to encourage the patient to talk about the positive aspects of quitting or cutting down on his or her drinking—known as “change talk.” The patient may also be encouraged to argue against drinking to himself, out loud. This can be accomplished by asking open-ended questions such as, “How would your life be different if you quit drinking?” Another skill is to affirm any change talk or positive statements made by the patient (eg, when you are sober, your work is creative, and you are more productive).

Reflective listening is a noteworthy skill that can help clinicians demonstrate empathy to patients and help evoke more change talk from their patients. For example, a reflection might sound like this, “I heard you say that you are not happy when you are drinking a six pack a night because you do not sleep well and you wake up in the middle of the night.” The overall motivational interviewing spirit is one of partnership, acceptance, evocation, and compassion.

Conclusion

Providing brief interventions is a relatively easy and straightforward process. When conducted through the joint lenses of lifestyle medicine and motivational counseling, the process can be life changing for patients, and even lifesaving. Patients begin to recognize the harm caused through their alcohol misuse, become inspired to change, and

feel empowered to act. This powerful technique always begins through detection. The easiest technique is for clinicians to use the CAGE questionnaire, or simply ask, “How many times in the past year have you consumed four or more drinks at a time?” to men, and “How many times in the past year have you consumed three or more drinks at a time?” to women. These straightforward screening methods allow quick interaction if a drinking problem is apparent. When performed in a nonjudgmental, empathic manner, these assessments often elicit honest responses that open up opportunities for healing. When possible alcohol problems are detected, short interventions that utilize the transtheoretical model, the FRAMES elements, and motivational interviewing principles are recommended by medical societies and robustly supported through scientific research. Each interaction with a problem drinker should be individualized depending on patient needs and desires. The key to helping patients achieve personal growth and optimal health through the brief intervention process is via empowerment—not to fight past problems, but instead to pioneer a new course of healthy lifestyles, leading the way to productivity, creativity, and thriving in the workplace and at home.

Referral Options

When AUD is suspected, referral is recommended. The DSM-V refers to AUD as a “problematic pattern of alcohol use leading to clinically significant impairment or distress.”⁴² Two or more of the following criteria must have occurred within a 12-month period for an AUD diagnosis:

1. Consuming more alcohol, or drinking for a longer duration, than intended
 2. Fruitless attempts, or a sustained desire, to moderate consumption
 3. Preoccupation with seeking or consuming alcohol or recuperating from its effects
 4. The experience of cravings to consume alcohol
 5. Reoccurring consumption that causes work, school, or home problems
 6. Continued consumption in spite of social problems caused or worsened through alcohol use
 7. Discontinuing or reducing social, work, school, or home activities as a result of alcohol use
 8. Reoccurring alcohol use during physically dangerous circumstances
 9. Continued consumption in spite of physical or psychological problems, presumably caused or worsened through alcohol use
 10. Tolerance, increased amounts needed to achieve intoxication or a diminished effect when a similar amount of alcohol is consumed
 11. An experience of alcohol-induced withdrawal syndrome
- For individuals showing signs of AUD, providing a referral to an addiction specialist is critical to manage the disorder and prevent further health and social consequences.⁴³ Substance Abuse and Mental Health Services Administration (SAMHSA) offers a treatment locator service via phone: 1-800-662-HELP or online (<http://www.findtreatment.samhsa.gov>). Physicians certified in addiction medicine can be located on the American Society of Addiction Medicine website (community.asam.org/search). Psychiatrists specializing in addiction medicine are accessible through the Patient Referral Program on the American Academy of Addiction Psychiatry website (<http://www.aaap.org>). Finally, psychiatrists specializing in adolescent addiction medicine can be located through the Child and Adolescent Psychiatrist Finder on the American Academy of Child and Adolescent Psychiatry website (<http://www.aacap.org>).
- Moderation management (<http://www.moderation.org>) is an online support group for people concerned with reducing their alcohol consumption. A complementary online intervention is moderate drinking (<http://www.moderatedrinking.com>), which is a web-based behavioral self-control skills program that trains individuals to trim

down on their drinking. Only 1 controlled study has been conducted on these interventions, which found that individuals who used either intervention significantly reduced their drinking based on these variables: (a) alcohol-related problems, (b) blood alcohol concentration per drinking day, (c) standard drinks per week, and (d) percentage of days abstinent.^{44,45} Both the moderation management and moderate drinking programs are on Substance Abuse and Mental Health Services Administration's National Register of Evidence-based Programs and Practices because of the programs' efficacy.⁴⁶

Alcoholics Anonymous (<http://www.aa.org>) is an abstinence-focused support group with an estimated 2 million or more members.⁴⁷ Meetings are free and widely accessible, with a reported 114 000 individual group meetings held throughout the world.⁴⁸ Alcoholics Anonymous and its spirituality-based 12-step approach have been found to be effective in helping individuals quit their drinking.^{49,50}

Authors' Note

Elizabeth Frates' husband is employed by Alkermes, the pharmaceutical manufacturing company that developed the long-acting formulation of naltrexone.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article. **AJLM**

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