

# Culture and Medicine

## Screening patients for alcohol, tobacco, and other drug misuse: the role of brief interventions

Dealing with patients who misuse tobacco, alcohol, and other drugs often seems frustrating and unrewarding. Physicians feel powerless when patients with alcoholic cirrhosis continue drinking or when patients with chronic obstructive airways disease continue smoking despite being on continuous oxygen therapy. Notwithstanding what may seem like a futile exercise, research is beginning to show that medical professionals can make a difference in patients who misuse alcohol, tobacco, and other drugs. Several studies indicate that brief interventional techniques can identify patients at risk of misusing these substances, markedly reduce tobacco and alcohol consumption, lead to positive changes in health behaviors, and even improve recovery after treatment.<sup>1-4</sup>

### THE NEED FOR ROUTINE SCREENING

An estimated 17% to 27% of the US population will misuse alcohol, tobacco, or other drugs in their lifetime.<sup>5</sup> Studies also report that 10% to 50% of hospitalized patients suffer from a disorder related to substance misuse.<sup>6-9</sup> Likewise, more than 20% of adults seen by primary care physicians have a current or past alcohol, tobacco, or other drug misuse disorder.<sup>10</sup>

About 539,000 deaths in the United States each year are attributable to alcohol, tobacco, and other drug misuse, with an aggregate societal cost that exceeds \$238 billion.<sup>11</sup> Clearly, these ailments are too common to be dealt with only by specialists; yet, they are poorly diagnosed and treated by most physicians.<sup>12</sup>

### BARRIERS TO IDENTIFICATION AND TREATMENT

Several obstacles keep physicians from assisting substance abusing patients. Such barriers include physician pessimism about the effectiveness of intervention and treatment, a moralistic approach to substance misuse, and a perceived lack of time and training necessary to participate in successful interventions.<sup>11,13,14</sup>

Several predictive patterns are also evident in the management of patients who misuse alcohol, tobacco, and other drugs.<sup>15</sup> Many physicians simply refer patients with addictive diseases to psychiatric or social services, thereby jeopardizing continuity of care. Others scold patients, and some even administer intravenous ethanol to hospitalized alcoholic patients to prevent withdrawals, but fail to address the disease formally.<sup>16</sup>

Many health care professionals simply ignore the diagnosis, failing to recognize these conditions as chronic psychiatric diseases characterized by relapses and remissions. Like a patient with untreated hypertension, those who are substance misusers will continue to use health care services heavily until their underlying disease is addressed.<sup>6</sup>

### ADDRESSING THE PROBLEM THROUGH BRIEF INTERVENTIONS

For the past two decades, evidence has accumulated that supports the effectiveness of brief interventions for patients suffering from substance misuse. The literature contains nearly 40 controlled studies on brief interventions targeting drinking behavior. These studies included more than 6,000 problem drinkers in various clinical settings and across 14 nations. Brief interventions were consistently found to be effective in reducing alcohol consumption and facilitating treatment referral.<sup>17</sup> The World Health Organization directed the largest randomized study in which 1,655 patients had either one 20-minute interview (control); an interview and 5 minutes of advice; or an interview, 5 minutes of advice, 15 minutes of counseling, and a self-help manual. The results showed significant and similar decreases in alcohol consumption in the experimental groups, regardless of the length of the intervention.<sup>18</sup>

A Canadian randomized study evaluating three brief interventional methods in 159 adults showed a reduction in the frequency and quantity of drinking of 66% for men and 74% for women. There was no difference in the length of the intervention or whether the advice was given by the patient's own physician, an assigned physician, or a nurse.<sup>19</sup> A meta-analysis of 12 randomized controlled trials showed that those receiving brief interventions were twice as likely to have moderated their drinking at 6 to 12

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#### Summary points

- Most physicians think it is fruitless to assist patients with alcohol, tobacco, and other drug misuse
- Studies have shown, however, that brief interventional techniques can identify patients at risk, and reduce tobacco and alcohol consumption
- Brief interventional techniques can also lead to improved health behavior and bolster recovery after treatment

months' follow-up as those who received no intervention. This was consistent across sex, intensity of intervention, or type of clinical setting.<sup>20</sup>

In Spain, a multicenter randomized controlled trial with a follow-up of 12 months evaluated brief interventions in 229 patients. It showed that a 15-minute physician intervention led to 67% of patients reaching their target to reduce alcohol consumption compared with 44% of patients who were given only 5 minutes of physician advice.<sup>21</sup>

In the United States, a randomized controlled clinical trial with a follow-up of a year looked at the efficacy of brief physician interventions in 723 problem drinkers. The intervention consisted of two 10 to 15 minute counseling visits delivered by physicians using a scripted workbook that included advice and education. On follow-up, a significant reduction was found in the mean number of weekly drinks, episodes of binge drinking, frequency of excessive drinking, and length of hospital stays.<sup>4</sup>

This study was repeated in 146 older adults, and at follow-up, the intervention group showed a 34% reduction in the average number of drinks per week and a 74% reduction in the average number of bingeing episodes. The sample was too small to analyze the use of health care.<sup>22</sup>

A British study of 263 heavy drinkers admitted to surgical and orthopedic hospital wards showed that 52 of 84 study patients (62%) accepted referral to treatment following a brief intervention. Self-reported alcohol problems were significantly reduced and abstinence periods and work performance were significantly improved during the 1-year follow-up.<sup>23</sup>

A meta-analysis of 39 controlled trials on smoking cessation also showed higher success rates at 6 and 12 months associated with a brief intervention by a health care professional.<sup>24</sup>

Two studies in the United States addressed the efficacy of physician-delivered brief smoking interventions in 2,547 adults observed for 12 months. Smoking intervention by physicians was well received by patients and substantially increased long-term cessation. Interventions were augmented with the prescription of nicotine replacement. Telephone counseling during the follow-up was found not to contribute significantly to changes in smoking behavior.<sup>25,26</sup>

### BRIEF INTERVENTION MODEL

A brief intervention is generally characterized by the following components (see box).<sup>2,24</sup>

The use of five words beginning with the letter "A," based on a model from the National Cancer Institute to help patients stop smoking, can help clinicians remember the components of a brief intervention<sup>27</sup>:

### Characteristics of a brief intervention

- Full assessment of the patient's medical status by a health care professional
- Feedback about the health consequences of the assessment findings
- Opportunity for reflection by the patient, with an emphasis on his or her responsibility to change
- Clear recommendations on making changes, including contracting toward specific goals
- Follow-up care to monitor progress toward recovery

### Ask

Health care professionals must inquire about substance misuse at every visit. The CAGE questionnaire (see box) screens for alcohol and drug misuse.<sup>1</sup>

The questionnaire has a 91% sensitivity and a 77% specificity for alcohol misuse. The probability of alcoholism increases with each positive response: 1 = 50%, 2 = 70%, 3 = 90%, and 4 = 99% or more. Similar sensitivities and specificities are found when the CAGE questionnaire is used to screen for other drugs.<sup>1</sup>

Patients should be asked for details about the type, quantity, and frequency of substance misuse. They should be considered at risk for substance misuse if their alcohol consumption is more than 14 drinks per week or 4 drinks per occasion for men or more than 7 drinks per week or 3 drinks per occasion for women.<sup>3,11</sup> They should also be considered to be at risk for substance misuse if they currently use illegal drugs; regularly use tobacco; have any maladaptive pattern of prescription or over-the-counter drug use; or have any evidence of use resulting in physical, legal, or social consequences.<sup>2</sup>

### Advice

All patients should be educated about the health hazards of tobacco, alcohol, and other drugs, along with their potential for addiction.

### CAGE questionnaire

- Have you ever felt you should Cut down on your drinking/drug use?
- Have people Annoyed you by criticizing your drinking/drug use?
- Have you ever felt bad or Guilty about your drinking or drug use?
- Have you ever taken a drink or used drugs first thing in the morning (Eye-opener) to steady your nerves or get rid of a hangover?

**Assess**

Ask the patient, “Are you ready to quit?” or “Are you ready for a change in your life?” If the answer is yes, proceed to the next step. If the answer is no, remind the patient of the health hazards of continued use and reassess the patient’s readiness for change at each follow-up visit.

**Assist**

Discuss setting a quit date and address the patient’s plans to deal with “triggers” or cravings. Exploring the patient’s family and social support networks. Consider referral to psychiatric or social services, an addiction medicine specialist, a 12-step program, or other social support groups. Clinicians should contact their hospital’s social services or psychiatry departments to get a complete list of resources.

**Arrange**

Follow-up visits are important to assess progress. Patients should be reminded that relapses are common and that the medical team will be there to help as long as they still want to change. When relapses occur, the patient should be encouraged to explore triggers, and plans to deal with cravings should be updated. Patients should be encouraged to participate in a 12-step program.<sup>28</sup>

**12-STEP PROGRAMS AS IMPORTANT ADJUNCTS**

Twelve-step programs have proved to be highly effective and predictive for maintaining sobriety.<sup>28</sup> All programs



Natasha Lane/AP

Gambling can be enjoyable but also addictive

are modeled after Alcoholics Anonymous (AA), which was founded in 1935 by two “hopeless alcoholics”—Bill W. and Dr Bob, a surgeon—who wanted desperately to keep from taking another drink. The third member of AA was Bill D., who was a patient at a local hospital.<sup>29</sup> Membership is free, the only requirement being a desire to stop drinking or using drugs (not abstinence). The steps are a prescription for personal growth and development. Other 12-step programs include Nicotine Anonymous, Narcotics Anonymous, Cocaine Anonymous, Adult Children of Alcoholics, and Al-Anon. Alanon, Adult Children of Alcoholics (ACA) and Alateen are 12-step programs for family members of alcoholics and addicts. Their goal is to heal the family by having its members explore and address the dysfunction created by the substance misuser. As stated below, physicians should refer family members to these groups, even if the substance misuser is not interested in

Table Stages of change, patient level of motivation and appropriate physician interventional tasks

Stage of behavioral change	Patient level of motivation	Motivational task by physician
Precontemplation	Denial	Educate, create doubt, ask patient to think about their substance use behavior and keep a diary.
Contemplation	Ambivalence	Risk and benefit analysis, raise consciousness, consider trial of abstinence, provide pamphlets.
Determination	Motivated to change	Assist in determining course of action, explore treatment resources, review family and social supports, set goals and a quit date.
Action	Engaged in change	Support and follow-up. Explore patient concerns and stressors.
Maintenance	Maintaining change	Identify and use strategies to prevent relapse, discuss “triggers” and “cravings,” reassess support system.
Relapse	Ambivalent or motivated	Help renew process of change, understand relapse as a component of ATODA, reassess goals and support system, consider more aggressive treatment, explore “triggers” and “cravings.”

From Prochaska and DiClemente<sup>31</sup>

sobriety. These groups empower family members and may even be the trigger necessary to force the patient into sobriety.

Members hold meetings or visit nearly every hospital in the nation. Health care professionals are encouraged to take motivated patients to a meeting or to arrange for a bedside visit by an AA member for patients wishing one. Clinicians and their patients can get a schedule of meetings or obtain informational pamphlets at the local AA central office for a small donation. Like any group interaction, 12-step meetings assume the personality of the participants, so patients should attend several until they find a group they like. Families can attend a support group, such as Al-Anon, regardless of whether the patient seeks help. The telephone number for AA is listed in the white pages of any phone book in the world. AA can assist physicians in contacting other 12-step programs.

### THE ROLE OF THE HEALTH PROFESSIONAL

Health care professionals may become frustrated when dealing with substance misusers because there is no “antibiotic” to cure their illnesses.<sup>30</sup> Clinicians must make an effort to identify those who are emotionally ready to change their lives.

Alcoholics Anonymous teaches that people who are dependent on alcohol cannot be helped until they have hit “rock bottom”—that is, lost their health, profession, family, and friends and may be facing legal action. The concept of rock bottom can be understood through stages of change model (table).<sup>1,2,31</sup> The brief intervention process allows physicians to “raise the bottom,” or to move the patient through the stages of behavioral change, thereby reducing substance misuse, improving health behaviors, or even entering treatment before health and social supports are lost.

### CASE STUDY AND DISCUSSION

A 66-year-old man is admitted to a community hospital with resting pain in his lower left leg. His medical history includes a recent episode of pneumonia, hypertension, diabetes mellitus (controlled with diet), cardiovascular disease, and gastritis. His surgical history includes coronary artery bypass graft surgery and open-reduction internal fixation of his left ankle following a traumatic incident. The patient adds that he had also fractured his right ankle in a separate traumatic incident.

The patient is a retired business executive actively involved in community organizations. He is married and has two grown children with whom he has a strained relationship. The patient has never smoked or used illicit drugs; however, he has four to six alcoholic drinks per day. He does not think his alcohol consumption has any physical or social consequences.

The patient is pleasant, functioning well in society, but has many medical concerns. The amount of alcohol he drinks daily, coupled with his history of hypertension, gastritis, pneumonia, multiple trauma, and strained relationships, places him at risk for alcohol misuse. His primary physician reveals that the patient’s breath smelled of alcohol during previous office visits, but no intervention was attempted.

The patient’s wife is present during his admission history and physical examination. When the CAGE questionnaire is administered, the patient answers no to all four questions, but his wife nods in the affirmative after each one. When confronted with this discrepancy, the patient tries to minimize the physical and social consequences of his alcohol consumption. After being given some education on alcohol abuse and dependence, the patient is told he should stop drinking. He reacts with some animosity, but agrees to accept informational pamphlets and referrals.

The patient undergoes a successful left femoral-popliteal bypass graft revascularization. During his 5 days in the hospital, he participates in a detoxification protocol using oral chlordiazepoxide hydrochloride. Before discharge, he is given referrals to addiction medicine specialists.

Three months later, the patient is admitted to the hospital with claudication symptoms in his left leg. He says that his primary care physician is investigating his continued gastritis and that he is still drinking four to six alcoholic drinks per day. The patient is again instructed on alcohol misuse, particularly on the relationship between his continuing medical problems and his alcohol consumption. At his request, the patient is given an updated list of resources. A follow-up intervention note is recorded in his medical record.

Ultrasonography and angiography reveal that the distal portion of the patient’s femoral-popliteal graft is occluded. He undergoes thrombectomy and is discharged home the following day without complications.

One month later, the patient telephones and says he has stopped drinking. He agrees to an office visit to establish goals and develop a strategy for maintaining sobriety. Consultation with an addiction medicine specialist is arranged, along with follow-up visits to monitor the patient’s progress. The patient is highly motivated and has maintained sobriety for 6 months.

## CONCLUSIONS

Improving the lives of those who misuse alcohol, tobacco, and other drugs is one of the most rewarding experiences in medicine. While in remission, they can greatly contribute to our society, as evidenced by the success of physician and other professional diversion programs throughout the nation.

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## capsule

**Why widowers drink more** Few readers will be surprised that losing a spouse is associated with heavy drinking in older men (*Australian and New Zealand Journal of Psychiatry* 1999;33:740-747). An understandable reaction to the pain of bereavement, perhaps? Not according to one controlled study, which found that drinking was not linked to psychological distress. The authors suggest that recently widowed men drink more because their wives are no longer around to stop them.

## capsule

**Placebos for pin-pricks** An anesthesiologist from Heidelberg has developed a placebo acupuncture needle that looks and feels like the real thing but does not penetrate the skin (*Pain* 1999;83:235-241). Armed with a reliable way of blinding patients in acupuncture trials, a team from the city's university tested acupuncture against placebo in rotator cuff tendinitis. The real thing worked better, suggesting that acupuncture's effects critically depend on puncturing the skin.