

Alcohol Use Disorder

Amy E. Williams, Youngstown State University

DESCRIPTION OF ALCOHOL USE DISORDER

Definition

Alcohol use disorder occurs, “when the recurrent use of alcohol...causes clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school, or home” (Substance Abuse and Mental Health Services Administration [SAMHSA], 2015, p.22).

The *Diagnostic and Statistical Manual for Mental Disorders* (DSM-5) provides specific criteria for diagnosis of alcohol use disorder. These criteria include drinking more or for longer than intended; considering or unsuccessfully attempting to cut down on alcohol use; spending more time drinking or recovering from alcohol’s effects; experiencing cravings; experiencing negative impacts on work, family, or school functioning; continuing alcohol use despite conflict with friends or family stemming from use; cutting back or ending participation in activities that were once important to spend more time drinking; experiencing risk of harm due to alcohol use (e.g., driving while intoxicated, using heavy machinery, engaging in unsafe sex); continuing alcohol use despite mental health or medical consequences; experiencing increased tolerance; and experiencing symptoms of withdrawal (APA, 2013). The DSM-5 describes alcohol use disorder on a spectrum from mild to moderate to severe. Mild alcohol use disorder is diagnosed when an individual endorses two or three identified criteria, moderate alcohol use disorder is diagnosed when four or five criteria are endorsed, and severe alcohol use disorder is indicated by the presence of six or more of the diagnostic criteria.

Prevalence

According to data obtained from the 2014 National Survey on Drug Use and Health (NSDUH), 6.4% of the American population age 12 and older—or 17 million Americans—met the criteria for alcohol use disorder based upon criteria identified in the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition, Text Revision (DSM-IV-TR; SAMHSA, 2015). However, results from the 2012-13 National Epidemiologic Survey on Alcohol and Related Conditions identified lifetime prevalence rates for alcohol use disorder as defined by the DSM-5 at 29.1%, while a 12-month prevalence rate of 13.9% was observed for alcohol use disorder in the same study (Grant et al., 2015).

Resources:

National Institute on Alcohol Abuse and Alcoholism: (2015). *Alcohol facts and statistics*. Retrieved from <http://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/alcohol-facts-and-statistics>

National Institute on Alcohol Abuse and Alcoholism. (2015). *Alcohol use disorder: A comparison between DSM-IV and DSM-5*. Retrieved from <http://pubs.niaaa.nih.gov/publications/dsmfactsheet/dsmfact.htm>
SAMHSA. (2015). *Behavioral health trends in the United States: Results from the 2014 national survey on drug use and health*. Retrieved from <http://www.samhsa.gov/data/sites/default/files/NSDUH-FRR1-2014/NSDUH-FRR1-2014.pdf>

IDENTIFICATION/ASSESSMENT STRATEGIES

National Institute of Alcohol Abuse and Alcoholism (NIAAA) Alcohol Screening Questions

The NIAAA (NIAAA, 2015) identified three screening questions for problematic alcohol use: frequency of alcohol use in the past 12 months, quantity of alcohol use on a typical drinking day, and history of binge drinking within the previous 12 months. This third question regarding binge alcohol use is recommended by the United States Preventive Services Task Force as a reliable screening tool for assessing alcohol misuse (Moyer, 2013). The NIAAA Alcohol screening questions are intended to provide the practitioner with more information on the client's alcohol consumption patterns and are not intended to diagnose alcohol use disorder (NIAAA, 2015). As a result, additional assessment is recommended if an individual endorses problematic alcohol use when responding to the screening tool.

Alcohol Use Disorders Identification Test

The Alcohol Use Disorders Identification Test (AUDIT; Babor, Higgins-Biddle, Saunders, & Monteiro, 2001) is used to screen for alcohol use patterns that may put individuals at risk of negative alcohol-related consequences and alcohol-related health risks. The AUDIT contains 10 questions that address three issues salient to problematic alcohol use: hazardous alcohol use, harmful alcohol use, and dependence symptoms. AUDIT questions focus on frequency and quantity of use, loss of control over use, increased use, guilt, blackouts and injuries, and concern from others related to the individual's alcohol use patterns (Babor et al., 2001). The AUDIT is a recommended screening tool identified by the United States Preventive Services Task Force (Moyer, 2013). Strengths of the AUDIT include ease of administration and scoring, adequate reliability and validity for screening purposes, and item content congruent with symptoms of alcohol use disorder. In addition, the AUDIT is freely available to practitioners from the World Health Organization. Because the AUDIT is a screening tool, it is not sufficient or appropriate for use as a stand-alone diagnostic tool for alcohol use disorder.

Alcohol Dependence Scale

The Alcohol Dependence Scale (ADS; Skinner & Horn, 1984) measures alcohol dependence described by the World Health Organization's criteria for alcoholism when the instrument was initially developed (Skinner & Allen, 1982). The ADS contains 25 items that measure elements associated with alcohol dependence, including withdrawal, loss of control over alcohol use, compulsive alcohol use, tolerance, and craving. The ADS has demonstrated reliability and validity appropriate for diagnostic use and yields results consistent with other alcohol use disorder measurements (Doyle & Donovan, 2009). Strengths of the ADS include its ease of administration and scoring, applicability to diagnosing alcohol use disorder, and cost effectiveness. Limitations include lack of research related to the applicability of the ADS to the diagnostic criteria identified in the DSM-5.

Form 90

Form 90 (Miller, 1996) is a structured interview protocol that was initially developed for use with Project MATCH, a study measuring the effectiveness of three separate treatment interventions for alcohol use disorder. Form 90 uses a time span of 90 days prior to the assessment date as a reference point for considering alcohol use patterns and employs a calendar tracking tool to collect data related to alcohol use throughout the 90-day period. Form 90 is a complex instrument that yields a variety of data relevant to assessing and diagnosing alcohol use disorder. Data collected include frequency and quantity of alcohol use, frequency of abstinence from alcohol, degree of intoxication, and trends in these areas over a 90-day time span. Other elements contained in the Form 90 instrument include medical and substance use disorder treatment use, 12-step meeting attendance, employment/academic attendance, other drug use, and medication use (Miller, 1996). Strengths of the Form 90 include its cost effectiveness, utility as a diagnostic tool, and strong empirical support. The major limitation of the Form 90 is the complex administration and scoring procedure required.

Clinical Institute of Withdrawal Assessment of Alcohol Scale, Revised

The Clinical Institute of Withdrawal Assessment of Alcohol Scale, Revised (CIWA-Ar; Sullivan, Sykora, Schneiderman, Naranjo, & Sellers, 1989) is a 10-item scale used to assess the severity of alcohol withdrawal symptoms. The CIWA-Ar includes items on physical and psychological symptoms typically associated with alcohol withdrawal, and provides clinicians with data reflective of the severity of withdrawal symptoms. Strengths of this assessment include its brevity, the reliability and utility of assessment data, and availability of versions online in both printable and online fillable form formats. The major limitations of this assessment are the need for practitioners to measure pulse and blood pressure and to administer the CIWA-Ar on a regular schedule, both which are better suited to inpatient settings who have medically-trained staff who are able to fully and regularly assess clients.

Resources:

Alcohol Dependence Scale. Retrieved from: http://www.emcdda.europa.eu/attachements.cfm/att_4075_EN_tads.pdf

Alcohol Use Disorders Identification Test (AUDIT). Retrieved from http://www.talkingalcohol.com/files/pdfs/WHO_audit.pdf

Form 90. Retrieved from <http://pubs.niaaa.nih.gov/publications/ProjectMatch/match05.pdf>

NIAAA Alcohol Screening Questions. Retrieved from <http://www.niaaa.nih.gov/research/guidelines-and-resources/recommended-alcohol-questions>

Clinical Institute Withdrawal Assessment for Alcohol Scale, Revised (CIWA-Ar): https://umem.org/files/uploads/1104212257_CIWA-Ar.pdf

INTERVENTION STRATEGIES

The biopsychosocial-spiritual model attends to the interrelated elements of biological, psychological, social and spiritual functioning and serves as the contemporary medical model for conceptualizing functioning across domains (Hatala, 2013). This model is particularly appropriate for conceptualizing and treating alcohol use disorders, as problematic alcohol use impacts each of these domains and treatment often integrates biological, psychological, social, and spiritual components. Specific criteria for placement in treatment have been developed by the American

Society of Addiction Medicine (ASAM), and these placement guidelines take into account these multidimensional factors in considering the best setting for treatment given the limitations and strengths of each individual client (ASAM, 2013).

Cognitive-Behavioral Therapy

Cognitive-behavioral therapy (CBT) is an evidence-based practice for treating alcohol use disorders and preventing relapse (Hendershot, Witkiewitz, George, & Marlatt, 2011; McGovern & Carroll, 2003; Miller & Wilbourne, 2002). CBT during active alcohol use focuses upon supporting development of cognitive and behavioral processes and skills that can be used to address problematic drinking patterns. Specific attention is paid to building and reinforcing coping skills and managing stressors to reduce problematic alcohol use in response to stress (McGovern & Carroll, 2003). CBT for relapse prevention addresses thoughts and behaviors that predispose individuals to relapse and encourages development of coping skills that support sobriety (Hendershot et al., 2011).

Motivational Enhancement Interventions

Motivational enhancement interventions, which typically are brief interventions that use motivational interviewing to support clients in resolving ambivalence and raising awareness of the negative consequences experienced due to alcohol use, are considered an effective intervention for alcohol use disorder (Miller & Rollnick, 2013; Miller & Wilbourne, 2002). Motivational enhancement interventions include screening, brief intervention, and referral to treatment (SBIRT) as well as the use of motivational interviewing to facilitate conversations about change. Interventions are used in primary care and mental health treatment settings to support individuals whose alcohol use places them at risk of negative consequences (Azari et al., 2015; Miller & Rollnick, 2013). Motivational enhancement interventions allow the client to set goals related to abstinence or harm reduction, making these interventions particularly useful with clients who are unwilling to abstain completely from alcohol use (Azari et al., 2015; Miller & Rollnick, 2013).

Alcoholics Anonymous and Al-Anon

Alcoholics Anonymous (AA) is a peer support group based on the 12-step model. AA encourages abstinence from alcohol use through peer support in a self-help format. Regular attendance at AA meetings, engagement with a sponsor, and completion of step work help are encouraged to help an individual remain abstinent and develop knowledge, awareness, and skills that may support long-term sobriety. A post-hoc analysis of data collected during the Project MATCH study found increased rates of abstinence in individuals who attended AA compared with their non-AA attending counterparts (Magura, Cleland, & Tonigan, 2013). Expert consensus supports the use of AA and other self-help groups as a treatment modality that may be integrated with other effective treatments as a cost-effective and widely available tool to support recovery from alcohol use disorder (Humphreys et al., 2004).

Couple and Family Therapy

Couple and family therapy is used to help the family system encourage their loved one to engage in treatment, to provide systemic interventions during and after the individual seeks treatment, and

to support the family system when an individual is unwilling to engage in treatment for alcohol use disorder. The community reinforcement and family training (CRAFT) model has empirical support as a family-based intervention tool that supports the family's encouragement of the individual's initiation of treatment for alcohol use disorder (O'Farrell & Clements, 2012). Family and couple coping-skills training are effective interventions for helping family members to develop effective coping skills, both related to and independent of their loved one's alcohol use (O'Farrell & Clements, 2012). For couples where active treatment engagement is present, behavioral couples therapy has demonstrated effectiveness in helping the couple develop new interactional patterns to support the couple in making and maintaining changes that also promote abstinence from alcohol for the individual actively engaged in treatment (O'Farrell & Clements, 2012). Al-Anon, a 12-step peer-support group for individuals impacted by a loved one's alcohol use is an additional support mechanism available for family members (O'Farrell & Clements, 2012).

Alcohol Withdrawal Management

The risks associated with acute alcohol withdrawal may vary from mild tremors and anxiety to more serious complications including seizures and delirium tremens, a potentially fatal condition indicated by altered consciousness and delirium (Bayard, McIntyre, Hill, & Woodside, 2004). The ASAM Criteria are useful in determining where an individual should be supported through the alcohol withdrawal process, which may take place in either an inpatient or outpatient setting depending on the severity and risks presented by the client (ASAM, 2013).

Pharmacological management of alcohol withdrawal is recommended by the World Health Organization (WHO, 2012). These recommendations include the use of benzodiazepines to help the client withdrawal safely and relatively comfortably from alcohol; the WHO also recommends benzodiazepines as a first-line medication for seizure control. In addition, the WHO recommends that all patients being treated for alcohol withdrawal receive regular doses of the vitamin thiamine. The WHO also recommends that individuals at high risk for complications from alcohol withdrawal be treated in an inpatient setting (WHO, 2012).

Pharmacological Treatments

Two medications, Naltrexone and Acamprosate, demonstrated efficacy in clinical trials as pharmaceutical treatments for alcohol use disorder (SAMHSA, 2015). Naltrexone, an opioid antagonist used primarily with individuals dependent on opiates, reduced alcohol consumption and cravings for alcohol. In this trial, naltrexone also extended the time before relapse onset and reduced the duration of relapse in individuals who returned to drinking (McGovern & Carroll, 2003; SAMHSA, 2015). Acamprosate, a medication used for the treatment of alcohol use disorder, is effective at reducing alcohol use and cravings. Researchers observed increased rates of abstinence from alcohol during follow-up periods among those receiving the medication in clinical trials (McGovern & Carroll, 2003; SAMHSA, 2015).

Resources:

The ASAM Criteria: <http://www.asam.org/quality-practice/guidelines-and-consensus-documents/the-asam-criteria/about>

University of Washington Evidence-Based Treatment Matrix for Substance Use Disorders: <http://ada.washington.edu/ebp/matrix.pdf>

National Institute on Alcohol Abuse and Alcoholism: Treatment for Alcohol Problems: Finding and Getting Help <http://pubs.niaaa.nih.gov/publications/treatment/treatment.htm>

Motivational Interviewing Network of Trainers Website: <http://www.motivationalinterviewing.org/>

Treatment of Alcohol Withdrawal: http://www.who.int/mental_health/mhgap/evidence/alcohol/q2/en/

Alcohol Withdrawal Syndrome (includes Clinical Institute Withdrawal Assessment for Alcohol (CIWA-Ar) Scale: <http://www.aafp.org/afp/2004/0315/p1443.pdf>

Substance Abuse and Mental Health Services Administration. (2015). *Medication for the treatment of alcohol use disorder: A brief guide*. Retrieved from <http://store.samhsa.gov/shin/content/SMA15-4907/SMA15-4907.pdf>

National Institute on Drug Abuse Principles of Drug Addiction Treatment Guide: <https://www.drugabuse.gov/publications/principles-drug-addiction-treatment-research-based-guide-third-edition/acknowledgments>

National Institute on Drug Abuse Principles of Drug Addiction Treatment Guide for Adolescents: <https://www.drugabuse.gov/publications/principles-adolescent-substance-use-disorder-treatment-research-based-guide/evidence-based-approaches-to-treating-adolescent-substance-use-disorders>

REFERENCES

- American Psychiatric Association [APA]. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
- American Society of Addiction Medicine. (2013). *The ASAM criteria: Treatment criteria for addictive, substance-related, and co-occurring conditions*. Carson City, NV: The Change Companies.
- Azari, S., Ratanawongsa, N., Hetteima, J., Cangelosi, C., Tierney, M., Coffa, D. . . . Lum, P. (2015). A skills-based curriculum for teaching motivational interviewing-enhances screening, brief intervention, and referral to treatment (SBIRT) to medical residents. *MedEdPORTAL Publications*. Retrieved from <https://www.mededportal.org/publication/10080>
- Babor, T. F., Higgins-Biddle, J. C., Saunders, J. B., & Monteiro, M. G. (2001). *The alcohol use disorders identification test: Guidelines for use in primary care*. Retrieved from http://www.talkingalcohol.com/files/pdfs/WHO_audit.pdf
- Baynard, M., McIntyre, J., Hill, K. R., & Woodside, J. Jr. (2004). Alcohol withdrawal syndrome. *American Family Physician*, *69*, 1443–1450.
- Doyle, S. R., & Donovan, D. M. (2009). A validation study of the alcohol dependence scale. *Journal of Studies on Alcohol and Drugs*, *70*, 689–699.
- Grant, B. F., Goldstein, R. B., Saha, T. D., Chou, S. P., Jung, J., Zhang, H. . . . Hasin, D. S. (2015). Epidemiology of DSM-5 alcohol use disorder results from the National Epidemiologic Survey on Alcohol and related Conditions III. *JAMA Psychiatry*, *72*, 757–766. doi: 10.1001/jamapsychiatry.2015.0584
- Hatala, A. R. (2013). Towards a biopsychosocial-spiritual approach in health psychology: Exploring theoretical orientations and future directions. *Journal of Spirituality in Mental Health*, *15*(4), 256–276. doi: 10.1080/19349637.2013.776448
- Hendershot, C. S., Witkiewitz, K., George, W. H., & Marlatt, A. (2011). Relapse prevention for addictive behaviors. *Substance Abuse Treatment, Prevention, and Policy*, *6*, 1–17. doi:10.1186/1747-597X-6-17
- Humphreys, K., Wing, S., McCarty, D., Chappel, J., Gallant, L., Haberle, B. . . . Weiss, R. (2004). Self-help organizations for alcohol and drug problems: Toward evidence-based practice and policy. *Journal of Substance Abuse Treatment*, *26*, 151–158. doi:10.1016/S0740-5472(03)00212-5
- Magura, S., Cleland, C. M., & Tonigan, J. S. (2013). Evaluating Alcoholics Anonymous's effect on drinking in Project MATCH using cross-lagged regression panel analysis. *Journal of Studies on Alcohol and Drugs*, *74*, 378–385.
- McGovern, M. P., & Carroll, K. M. (2003). Evidence-based practices for substance use disorders. *Psychiatric Clinics of North America*, *26*, 991–1010.
- Miller, W. R. (1996). *Form 90: A structured assessment interview for drinking and related behaviors: Test manual*. Rockville, MD: National Institute on Alcohol Abuse and Alcoholism.
- Miller, W. R., & Rollnick, S. (2013). *Motivational interviewing: Helping people change* (3rd ed.). New York, NY: Guilford Press.
- Miller, W. R., & Wilbourne, P. L. (2002). Mesa Grande: a methodological analysis of clinical trials or treatments for alcohol use disorders. *Addiction*, *97*, 265–277. doi:10.1046/j.1360-0443.2002.00019.x
- Moyer, V. A. (2013). Screening and behavioral counseling interventions in primary care to reduce alcohol misuse: U.S. preventive services task force recommendation statement. *Annals of Internal Medicine*, *159*, 210–218.
- National Institute on Alcohol Abuse and Alcoholism. (2015). *NIAAA alcohol screening questions*. Retrieved from <http://www.niaaa.nih.gov/research/guidelines-and-resources/recommended-alcohol-questions>

- O'Farrell, T. J., & Clements, K. (2012). Review of outcome research on marital and family therapy in treatment for alcoholism. *Journal of Marital and Family Therapy*, 38, 122–144. doi:10.1111/j.1752-0606.2011.00242.x
- Skinner, H. A. & Horn, J. L. (1984). *Alcohol dependence scale: User's guide*. Toronto, Canada: Addictions Research Foundation.
- Skinner, H. A., & Allen, B. A. (1982). Alcohol dependence syndrome: Measurement and validation. *Journal of Abnormal Psychology*, 91, 199–209. doi: <http://dx.doi.org/10.1037/0021-843X.91.3.199>
- Substance Abuse and Mental Health Services Administration [SAMHSA]. (2015). *Behavioral health trends in the United States: Results from the 2014 national survey on drug use and health*. Rockville, MD: Author. Retrieved from <http://www.samhsa.gov/data/sites/default/files/NSDUH-FRR1-2014/NSDUH-FRR1-2014.pdf>
- Substance Abuse and Mental Health Services Administration [SAMHSA]. (2015). *Medication for the treatment of alcohol use disorder: A brief guide*. Rockville, MD: Author. Retrieved from <http://store.samhsa.gov/shin/content/SMA15-4907/SMA15-4907.pdf>
- Sullivan, J. T., Sykora, K., Schneiderman, J., Naranjo, C. A., & Sellers, E. M. (1989). Assessment of alcohol withdrawal: The revised Clinical Institute Withdrawal Assessment for Alcohol scale (CIWA-Ar). *British Journal of Addiction*, 84, 1353–1357. doi:10.1111/j.1360-0443.1989.tb00737.x
- World Health Organization. (2012). *Management of alcohol withdrawal*. Retrieved from http://www.who.int/mental_health/mhgap/evidence/alcohol/q2/en/