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Alcohol Use Disorder: Clinical Case Evidence for the Continuity Hypothesis

Joanne Cohen Hamilton


Hamilton, Joanne C., is an Associate Professor of Counseling and Student Affairs and coordinator of the MA program in Couples, Marital and Family Therapy at Kutztown University in Pennsylvania. She is a licensed psychologist, a licensed marriage and family therapist, and a national certified counselor specializing in trauma, addiction, and family therapy.

Diagnosis is a disguised prescription for change.
—Robert Lindner, 1976, p. iv

Problems With Categorical Diagnosis

The Diagnostic and Statistical Manual of Mental Disorders (4th ed., text rev.; DSM-IV-TR; American Psychiatric Association, 2000) has been criticized for using categorical diagnosis of psychiatric disorders despite considerable clinical evidence to the contrary (First, 2008). Although yes-no categories appear valid when diagnosing some conditions (e.g., Down Syndrome; Alzheimer’s disease), boundaries between mental health disorders (e.g., schizophrenia and bipolar disorder) and between disorders and normality (e.g., depression) more often exist on a continuum (Arnaout & Petrakis, 2008; First, 2008; Saha, Chou, & Grant, 2006). Client defiance of categorical diagnosis supports the idea that psychiatric diagnosis is a form of rhetoric (Kirk & Kutchens, 1992). DSM developers had hoped that empirically-based diagnostic categories would lead to discovering causes and treatments for disorders (cf. Regier, Narrow, Kuhl, & Kupfer, 2009), but research over the past 30 years has not provided the degree of categorical specificity originally hoped for.

The Continuity Solution to the Problem of Categorical Diagnosis

scrutiny. The proposed DSM-V Alcohol Use Disorder (AUD) represents a merger of the abuse and dependence axes, plus the additional symptom of cravings.

The continuity hypothesis predicts that eliminating the biaxial structure will yield more valid, reliable, and useful diagnosis. The continuous AUD measure is expected to reduce clinical assumptions about the way AUD criteria are organized, experienced, and expressed by clients. It will encourage more fluid assessments of symptom organization according to client phase of addiction, level of motivation to change, and stage of change. Continuous diagnosis may better accommodate to symptom shifting over the course of addiction remission, relapse, and recovery, and may better facilitate observations of symptoms cycles, as in a couple fighting (Abuse criteria A.4.) before sobriety, and then months later when the honeymoon is over. The continuous AUD measure eliminates forcing client experiences into abuse-dependence categories (First, 2008; Regier et. al., 2009).

**A Walk Down Memory Lane: Alcoholism in the DSM I and DSM II**

Psychiatry has long been attacked from within its own ranks for creating self-serving fictions (Cooper, 1967; Szasz, 1961), and for perpetuating the moral model view of alcoholism as a characterological weakness (Bayer, 1981). The symptoms of alcoholism in DSM-I and DSM-II, including sociopathic behavior, homosexuality, and failure to self-control (Skodol, 1997), reflected the psychoanalytic view that alcoholism is caused by early developmental arrest and inadequate caretaking (Babor, 1992; Oldham, 2005). These stigmas persist today.

Alcoholics Anonymous challenged the moral view of alcoholism as early as 1935. Alcoholics Anonymous maintains that alcoholism is not caused by a lack of willpower, but rather, is a disease of powerlessness over alcohol (General Service Office of Alcoholics Anonymous, 1956). The big book showed that all types of people develop and recover from alcoholism (Alcoholics Anonymous, 2001). Tiebout (1953) showed that sobriety may be achieved by admitting to powerlessness and surrendering to a higher power.

**Thirty Years of Alcohol Abuse and Dependence Bi-Axial Diagnosis**

**Inauguration of the Bi-Axial System**

Alcoholism was removed from the list of personality disorders and classified as an Axis I disorder in DSM-III (American Psychiatric Association, 1980). The content of the alcohol disorder diagnosis was based largely on the groundbreaking research of E. M. Jellinek (1942; 1960), whose research participants were substantially clients in AA. Jellinek provided evidence of alcohol disorder phases and subtypes roughly differentiated according to degree of physical, psychological, social, and occupational impairment (Jellinek, 1942; 1960). His findings influenced the DSM III (APA, 1980) alcohol disorder symptoms: functional impairment, tolerance, and inability to control (Johnson, 2010) (symptoms that have appeared in all DSM versions since). Jellinek’s alcoholic subtypes also appear in the International Classification of Disorders, to which Jellinek served as consultant (World Health Organization, 1967). The ICD 8 diagnosis alcohol disorder
symptoms include: episodic excessive drinking, habitual excessive drinking, compulsion and withdrawal (Babor, 1992).

**Solidification of the Bi-Axial System**

The *DSM-III* was designed to be research-based, descriptive, and non-theoretical (Oldham, 2005). Scientific guidelines used to structure it were the Feigner criteria and the Research Diagnostic Criteria (RDC; Feighner et al., 1972; Kendler, Rodrigo, & Murphy, 2009). Lead author and director of the *DSM-III* Robert Spitzer had become an expert in the RDC method of evaluating physiological-behavioral indicators of mental health disorders in a manner “compatible with international trends and guidelines for diagnosis and prescription” (Spitzer, Endicott, & Robins, 1975, p. 34). Applying the Feigner and RDC criteria to data on alcohol problems yielded two factors: 1) problems with control (Spitzer, Williams, & Skodol, 1980), and 2) physiological dependency (Edwards & Gross, 1976), and the bi-axial system of abuse and dependence was born.

**Reconfigurations of the Bi-Axial System**

Edwards and Gross’ (1976) dependency syndrome heavily influenced the *DSM-III-R* (American Psychiatric Association, 1987) to remove tolerance and withdrawal symptoms out of the *DSM III* abuse axis and into dependence. This made abuse more of a residual diagnosis (Edwards,1986; Hasin, Grant, & Endicott, 1990). The *DSM-IV* (American Psychiatric Association, 1994) then made abuse and dependence completely non-overlapping axes (i.e., Abuse Criterion B., abuse cannot be diagnosed if dependent). Abuse remained a residual diagnosis for clients reporting one or more specific problems due to alcohol use (e.g., fighting with spouse over drinking, legal trouble cause by a DUI, chronic lateness on job due to drinking). The *DSM IV* dependence subtypes “with or without withdrawal” (Schuckit, 1994) were also added.

A significant achievement of the *DSM-IV-TR* (American Psychiatric Association, 2000) alcohol related disorders pertains to additional text discussion on epidemiological and neuro-scientific research on alcohol disorders (McGue, 1999). The *DSM-IV-TR* contains reports on such statistically significant alcohol abuse correlates and processes as family history, early use, metabolic differences between genders, and the physiology of cravings. In fact cravings have been added to the proposed *DSM-V* criteria for AUD (criterion B.11). Recent evidence has emerged to support the use of opiate antagonists (naltrexone, nalmefene), and over-the-counter supplements like NaC and GaBa (Tsuang, Bar, Harley, & Lyon, 2001) for cravings, and acamprosate both for cravings and for lowering toxicity during early withdrawal (Miller & Wilbourne, 2002).

**Evidence for the Continuity Hypothesis as the Basis for the Proposed DSM-V Alcohol Use Disorder**

In refining the biaxial system over the past 30 years, categorical differences between and among individuals with different stages and types of alcohol use have been found (Grant & Harford, 1988-1989), and abuse-dependence thresholds have been met (Grove, McBride, & Slade, 2009). In addition, the two-factor biaxial model of abuse and dependence has been shown to be a better fit for existing data than a one dimensional continuity model. Nevertheless, the two factors are highly correlated (Grant, Harford,
Muthen, Yi, Hasin, & Stinson, 2007; Harford & Muthen, 2001), and categorical diagnosis has not stood up to test-retest reliability studies on the abuse axis (Hasin et al., 2006). Arbitrary diagnostic thresholds lead to high rates of sub-threshold and not otherwise specified diagnoses, and to high rates of diagnostic comorbidity (Helzer, Kraemer, & Krueger, 2006). They leave too many outliers who report one or two dependence symptoms but do not meet diagnostic criteria (Degenhardt, Lynskey, Coffey, & Patton, 2002). The weight of evidence supports a more fluid and continuous assessment of alcohol use symptoms than the biaxial system allows (Hasin & Beseler, 2009; Hasin, Liu, Alderson, & Grant, 2006; Saha et al., 2006).

Research furthermore suggests that substance use does not follow a single predictable course (Saha et al., 2006). The AUD diagnosis is expected to allow clinicians to view people more holistically, to accommodate to individual differences in phase, and to use diagnoses to serve clients rather than the other way around (First & Westen, 2007). Diagnostic continuity will hopefully encourage clinical flexibility to practice a recovery-oriented system of care (ROSC). The ROSC is recognized as a Substance Abuse and Mental Health Services Administration evidence-based practice that focuses on symptoms that are open for change and that are sensitive to client level of motivation and stage of change (Center for Substance Abuse Treatment, 2007).

**Alcohol-Related Legal Trouble Cut From Criteria**

Some clinicians are concerned that the *DSM IV-TR* abuse symptom *legal trouble* has been excluded from the proposed *DSM-V* AUD diagnosis. For many clients, this is the criterion that brought them into counseling. The variable legal trouble has not been found to significantly discriminate either abuse or dependence (Shmulewitz, Keyes, Beseler, Aharonovich, Aivadyan, Spivak, & Hasin, 2010). Removing the legal trouble criterion will not affect diagnosing severe cases of AUD, but it will reduce severity in some cases. Removing the legal criterion may altogether eliminate some diagnosis of AUD, such as individuals mandated to counseling due to a single alcohol-related incident (e.g., a case of underage drinking or public drunkenness).

**Accounting for Severity in AUD Diagnosis**

Cutoff scores for the AUD severity index were the result of discriminant, power, and error analysis of data from several large scale studies of abuse and dependence. Straight-forward symptom counts of severity were empirically determined to work as well as other weighted systems. Gelhorn et al. (2008) report that compared to the bi-axial model, straight-forward criterion counts yielded more homogeneous groups and better concordance rates for making an AUD diagnosis without the need for weightings. Muthén and Asparouhov’s (2006) hybrid model, which combines discrete binary coding of symptoms (you have it or you do not have it) with a continuous dimension of severity is close to what the *DSM-V* is proposing (APA, 2011). In the proposed *DSM-V* system, AUD may be mild (2-3 criteria), moderate (4-5 criteria), or severe (6+ criteria) (American Psychiatric Association, 2011).
Clinical Case Evidence for the Continuity Hypothesis

The case of James R. provides evidence that AUD is a more continuous and fluid process of making a diagnosis than is the bi-axial DSM-IV-TR system (American Psychiatric Association, 2000).

The Case of James R.

Nineteen year-old James R. was a college freshman attending a state system university on a wrestling scholarship. James was a star player at his small rural high-school. Like several of his freshman peers, James was recruited for his future potential as much as his current ability. He was benched in the second week of his first year. By the fourth week of classes he was struggling to make C’s.

James was a “B” student in high-school, but his real passion was wrestling. He told his counselor about the trophies and medals that lined the shelves of his bedroom at home, and he talked enthusiastically about a match that won him the state medal in overtime and that probably clinched his college scholarship. His family would be so disappointed if they knew he was benched. James swore.

James’ hometown was a place where everyone knew pretty much everyone. The diversity of the people on campus overwhelmed James, and he considered himself an outcast and a failure in his dreams of being part of the team. He felt humiliated, ashamed, alone, depressed, and angry. He told no one he was benched before he told his counselor.

James’ family knew only what he told them. He said things were going okay in school, but that the coach was a real jerk. He said he might think about quitting the team. He lied in order to keep his family from attending a match, saying that the coach had a rule about freshman not inviting visitors; some stupid rule, James said, because there might not be enough tickets for the seniors or some such nonsense. His dad became angry, threatening to call whomever was “in charge,” but his mom rescued him, to his relief, saying, “don’t make waves.”

James went to a keg party. Then he went to another, and then a few more. He found that he drank quite a bit, but handled it pretty well. Other people liked him better, it seemed, and he had more fun after he drank a few. Girls flirted with him.

By the time he was referred for counseling, James had been getting drunk several times a week for a few weeks. He bragged about his skill at beer pong, and about being able to drink most of his friends under the table. He was beginning to miss morning classes. When the coach saw James’ midterm grades, he encouraged him to get counseling in order to stay on the team.

Applying the DSM-IV-TR Criteria to James R.

Diagnosing James on the Abuse Axis. One or more symptoms of four are required to make a DSM-IV-TR diagnosis of alcohol abuse, as long as criteria for dependence are not met. Regarding abuse, it was questionable whether James’ alcohol use interfered with his schooling (Abuse criterion A.1.), because James’ apathy and poor school performance preceded his drinking. Furthermore, James did not use alcohol in physically hazardous situations (Abuse criterion A.2.), and he had no alcohol-related legal problems (Abuse criterion A.3.). Finally, the interpersonal problems James had with
his family (Abuse criterion A.4.) had to do with lying about wrestling, not about alcohol use (although he also concealed his alcohol use from them). For purposes of diagnosis, the counselor would need to look more closely at the extent of alcohol use interference with James’ schooling (Abuse criterion A.1.) and family relationships (Abuse criterion A.4.) only if James did not meet the criteria for alcohol dependence (Abuse criteria B.).

**Diagnosing James on the Dependence Axis.** Three or more symptoms of seven are required for a *DSM-IV-TR* diagnosis of alcohol dependence. The first of these is tolerance. Tolerance is defined in both *DSM-IV-TR* Alcohol Dependence Disorder and *DSM-V* Alcohol Use Disorder as either or both: “A need for markedly increased amounts of alcohol to achieve intoxication or desired effect,” and/or “Markedly diminished effect with continued use of the same amount of the substance.” Tolerance did not apply to James (Dependence criterion 1.). Although he might be heading in that direction, James drank the same large amount on each occasion.

Regarding withdrawal, when James entered counseling it was the seventh week of the semester and his three weeks of binging-- consisting of about eight to twelve 12-16 ounce cups of beer almost nightly-- suggested that James might go through withdrawal if he attempted to stop drinking. James admitted feeling “sort of shaky” if he did not drink. Withdrawal was a possibility (Dependence criterion 2.).

James did not drink a larger amount or for longer than he intended (Dependence criterion 3.). Rather, he intended to drink a large amount almost every night! He had not tried cutting down (Dependence criterion 4.). He had not given up social, occupational, or recreational activities for use (Dependence criteria 5.). To the contrary, this was his social life (and while thinking of quitting the team, he still attended every practice). It was reasonable to say that James was spending a lot of time drinking (Dependence criterion 6.), and when James was discovered to have a medical condition (Dependence criterion 7.) that placed his health upon use and withdrawal at very high risk, the counselor added the criteria of withdrawal (Dependence criterion 2.) and diagnosed James with Alcohol Dependence on the basis of time spent (D.6), physical condition (D.7), and withdrawal (D.2.). (James was admitted into a detoxification and dual diagnosis rehabilitation center where he received services for nearly a month).

**Applying the Proposed DSM-V AUD Criteria to James R.**

The same basic approach to *DSM-IV-TR* criterion evaluation applies to proposed *DSM-V* criterion evaluation except that with the *DSM-V*, the counselor is unencumbered by the axes and can also evaluate cravings. Thus James will not meet AUD criteria: B.1. (larger amounts than intended); B.2. (attempts to cut down); B.6. (important events given up); B.7. (physically hazardous use- e.g., machinery, driving), and B.9. (tolerance), but he will meet Criteria B.3. (time spent using) and B.8. (physical problem exacerbated by use). It was seen that together, B.3. and B.8. did not meet criteria for *DSM-IV-TR* dependence (3 criteria are required), but would meet criteria for mild AUD.

Some clinicians fear that the new AUD will result in many more people being diagnosed due to catching outliers, as the above example suggests. For James, however, assessing withdrawal solidified his dependence diagnosis, but will not alter his diagnosis of mild (2-3 criteria) AUD (“with withdrawal” still being specified).
James’ AUD Severity Index Assessment

Clinically speaking, even though all of James’ AUD symptoms come from the dependence axis, a DSM-V diagnosis of mild AUD (with withdrawal) seems more apropos than DSM-IV-TR diagnosis of alcohol dependence (with withdrawal). The proposed DSM-V diagnosis eliminates some of the stigma and hyperbole of the dependence diagnosis. Moreover, James’ DSM-V AUD severity can increase based on determinations regarding criteria B.4. (failure to fulfill obligations), B.5. (interpersonal problems), and B.11 (cravings). These symptoms can make a critical difference in James’ DSM-V severity rating, whereas they have no diagnostic impact using the DSM-IV-TR, since abuse axis criteria are dismissed once dependence is met. If one or two (abuse axis) criteria are assigned, James’ AUD will change from mild to moderate (4-5), and if all three are included, his case will be considered severe.

Unencumbered by the abuse v. dependence distinction, James’ counselor will decide whether James’ interpersonal and school performance problems are caused or exacerbated by alcohol use as indicated on B.4. and B.5. This is what First (2008) meant in saying that the continuous model of alcohol use symptoms will allow clinicians to provide a dimensional indication of cross-cutting symptoms like impulsivity and lack of insight. Although Cloninger indicators of early-onset (before age 25) and high familial loading are not a part of the proposed DSM-V AUD diagnosis (Johnson, 2010), authors like Muthén and Asparouhov (2006) suggest that such risk-factors as age of first use and family history could be included in severity considerations.

Summary and Recommendations

Clinical research suggests that a continuous model for diagnosing alcohol use disorders will simplify diagnosis and accommodate to outliers (Gelhorn, et. al., 2008). A continuous model will facilitate phenomenological awareness of clients’ symptom experiences. Problem criteria can be seen as they exist for clients, unencumbered by the bi-axial dichotomy. As seen in the case of James R., clinical strain associated with forcing symptoms into artificial categories is eliminated by using the proposed DSM-V AUD diagnosis. The proposed DSM-V AUD diagnosis frees the counselor from the rhetoric of the DSM-IV-TR abuse-dependence dichotomy.

Lessons learned from the Global Assessment of Functioning (GAF) scale suggest that reliability of the DSM-V severity index will be poor without systematic training (American Psychiatric Association, 2011). As counselors have become increasingly expected to perform diagnosis, diagnostic training has correspondingly become a requirement of CACREP-accredited counselor education programs. Students benefit from exploring actual cases, such as the case of James, as the phenomenological approach would suggest. Counselor trainees can be provided with cases that require them to reflect upon AUD criteria as presented in different meaning-systems, contexts, stages, and treatment settings. Does diagnosing withdrawal in James have more profound significance than diagnosing withdrawal in a client who has binged and cut down before, and/or who has no known medical risk? With no medical risk, adding withdrawal would not have given James a DSM-IV-TR dependence diagnosis, though it will result in a diagnosis of mild AUD (with withdrawal).
A well-known source of error in psycho-diagnostic decision-making is values (Boy, 1992). Students learning DSM-V AUD diagnosis should be challenged to consider the influence of their values upon making a diagnosis. For instance, do they count occupational impairment the same way for a client whose lateness to work does not affect them financially because they are salaried, as for a client who gets docked hourly pay for lateness? Is three hours of nightly drinking at expensive restaurants with business clients equally assessed as three hours a night at the local bar? Does Sherry count the same as Bud? Students should be confronted with the possible influence of their values and differential and stereotypical attitudes affecting criterion decisions.

Counselors and future researchers will undoubtedly benefit from the freedom to observe the continuum of AUD symptoms as clients naturally organize, experience, and present with them. However one limitation of the proposed DSM-V AUD diagnosis is the absence of weighted criteria. Although the severity index provides a relative measure of the extent of AUD problems, a further-fluid approach that permits clinicians to add weight to highly problematic symptom(s) might be preferred. James, for example, should get a higher weight on B.8. (physical problem exacerbated by alcohol use) than a client assessed with criterion B.8. due to alcohol-exacerbated gastrointestinal reflux disorder. Similarly, a client who reports frequent relationship bickering over alcohol use would be assessed to meet criteria B.5. (interpersonal problems caused or exacerbated by alcohol), but a client reporting alcohol-related marital violence should be given a higher weight on B.5.

It is a disconcerting thought that James’ mild AUD might be misinterpreted by insurance providers to mean that intensive action is unwarranted. Specifying “with withdrawal” will hopefully solve this concern. Given the idiosyncratic manner in which alcohol symptoms are manifested, it is understandable that the un-weighted solution was as good a fit as several weighted ones. A more phenomenological, client-centered approach would be to allow clinicians to add weight to excessive or extreme criteria. Clinical judgment in assigning additional weights, on a case-by-case basis, would better reflect a client’s unique presentation of symptoms and needed treatment.

References


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