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COMMENTARY

The definition of dependence and behavioural addictions

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Abstract

DSM-III-R and ICD-10 have incorporated a much broader definition of chemical dependence than was included in DSM-III. This broader definition no longer requires the presence of tolerance and withdrawal, and places greater emphasis on aspects of compulsive use. Using this broader definition, a number of behavioral syndromes, especially compulsive and impulse disorders, appear to share descriptive similarities with chemical dependence. Although these similarities in overt presentation may reflect underlying similarities in pathogenesis and treatment response, such a non-specific definition may also obscure important differences. Given the available knowledge, it is unclear if it is more useful to highlight the similarities among chemical dependencies and other behavioral syndromes or to maintain their distinction.

Dr Mark's thought-provoking editorial, *Behavioural (Non-chemical) Addictions*, has heuristic value for discussions of the definition and classification of the addictions. Based on similarities in phenomenological presentation, pathogenesis and treatment techniques, Dr Marks makes the case that behavioral and chemical addictions might be considered near neighbors. We will discuss Dr Mark's comments in the context of the American Psychiatric Association's (APA) Diagnostic and Statistical Manual of Mental Disorders (DSM-III: APA, 1980), the revision of DSM-III (DSM-III-R: APA, 1987), the proposed 10th revision of the International Classification of Diseases (ICD-10; World Health Organization, 1990), and our ongoing work on DSM-IV. The major point we will make is that Dr Marks has used a very broad definition of the dependence syndrome, and it is not clear whether the resulting relationship he finds between behavioral and chemical dependence will provide useful information on etiology or treatment.

Dr Marks begins his editorial by positing a remarkably inclusive definition of addictions that encompasses many commonplace biological functions and social activities. He initially describes what he calls the normal 'addictions', and includes in this rubric even the life-sustaining processes of breathing, eating, drinking, defecation, micturition and sex. He also includes within his broad definition of addictions other less immediately life-sustaining, but nonetheless rewarding, routines (e.g. "being with family and friends, jogging, gambling, gardening"). Marks points out that these rewarding behaviors may result in some discomfort (withdrawal) if one is unable to enage in a activity. With a concept of 'addiction' that is so broad, it is not surprising that Marks finds many otherwise distinct clinical entities to be related to one another.

In his third paragraph, Dr Marks returns to a somewhat more restrictive, but still quite broad, definition when he notes that behavioral and chemical addictions are characterized by a frequency and

intensity which lead to a handicap in overall functioning. Within these contexts, Dr Marks points out many similarities between chemical addictions and a broad array of mental disorders and behaviors, including obsessive–compulsive disorder (OCD), compulsive spending and gambling, overeating, hypersexuality, kleptomania, trichotillomania, tics and Tourette's Syndrome. Dr Marks argues that each of these behavioral syndromes meets Edward's (1986) definition of a dependence syndrome, quoted by Marks as:

(1) repeated urges to engage in a particular behavioral sequence known to be counterproductive,
(2) mounting tension until the sequence is completed,
(3) rapid but temporary switching off of the tension by completing the sequence (a 'quick fix'),
(4) gradual return of the urge over hours, days or weeks,
(5) external cues for the urge unique to the particular addictive syndrome,
(6) secondary conditioning of the urge to both environmental and internal cues,
(7) similar strategies for relapse prevention: (a) training in impulse control by prolonged cue exposure in order to habituate cue-evoked craving and withdrawal and (b) stimulus control (environmental management).

Dr Marks emphasizes the parallel between a 'behavioral addict's' urge to perform the behavior and discomfort if prevented and the addict's craving for a substance and withdrawal if it is unavailable. It should be realized that it is only on the basis of Edwards' broad definition of the dependence syndrome that Dr Marks can assert that behavioral syndromes represent types of dependence.

The different definitions of dependence suggested during the past 10 years have had differing levels of inclusiveness. The DSM-III definition of dependence was much narrower than the one that was suggested by Edwards and that has been used as a standard by Marks. DSM-III required the presence of "physiological dependence, evidenced by tolerance or withdrawal" (APA, 1980, p. 165). The patient's pattern of use is not sufficient by itself (i.e. without the presence of tolerance or withdrawal) for the diagnosis of dependence. Influenced by Edwards (1986) and others who felt that the DSM-III definition of dependence was too narrow (Rounsaville, Spitzer & Williams, 1986; Rounsaville, 1987), the DSM-III-R and the ICD-10 definitions of dependence have been broadened by eliminating the requirement that physical symptoms be present, and by increasing the emphasis on aspects of compulsive use with defining such items as inability to control substance use, taking more of the substance than was intended, continued use of a substance despite knowledge of harmful consequences and interference with social or occupational functioning.

The DSM-IV Substance Use Disorders Work Group is studying the advantages and disadvantages of returning to a somewhat narrower definition of dependence, more compatible with the one suggested in DSM-III. This definition would again *require* the presence of either tolerance or withdrawal in addition to evidence of either compulsive use or the problematic consequences of substance use. This work group is also exploring the relationship between dependence and abuse, and has suggested a somewhat broader definition of abuse. The ongoing work of this group is following the three-stage process being used in the development of DSM-IV (Frances, Widiger & Pincus, 1989): comprehensive reviews of the literature, re-analyses of existing data sets and field trials. Changes in DSM-IV will require a high threshold of empirical evidence.

It is clear that the degree to which one regards behavioral and chemical addiction as similar will depend on the breadth of one's definition of dependence. More inclusive definitions of chemical dependence, such as the one suggested by Edwards and used by Dr Marks, will necessarily highlight the similarities among the chemical or behavioral 'addictions'. The more inclusive the definition of addictions, the less clear becomes the boundary between addictive, compulsive and impulsive behavior (and as Dr Marks suggests, breathing, micturating, eating, etc.) and the easier it is to conceive of these syndromes within the same rubric.

In contrast to the approach presented by Dr Marks, DSM-III-R makes distinctions among dependence, compulsions, and impulsive behavior. The definition of dependence has already been discussed. Compulsions are defined as:

> repetitive and seemingly purposeful behavior that is . . . performed according to certain rules or in a stereotyped fashion. The behavior is not an end to itself, but is designed to produce or prevent some future state of affairs; the activity, however, either is not connected in a realistic way with the state of affairs it is designed to produce or

> prevent, or may be clearly excessive. The act is performed with a sense of subjective compulsion coupled with a desire to resist it (at lease initially); performing the particular act is not pleasurable, although it may afford some relief of tension (APA, 1987, p. 393).

Disorders of impulse control are defined as:

> failure to resist an impulse, drive, or temptation to perform some act that is harmful to the person or others. There may or may not be conscious resistance to the impulse. The act may or may not be premeditated or planned. [There is an] increasing sense of tension or arousal before committing the act [and an] experience of either pleasure, gratification, or release at the time of committing the act. The act is ego-syntonic in that it is consonant with the immediate conscious wish of the individual. Immediately following the act there may or may not be genuine regret, self-reproach, or guilt. (APA, 1987, p. 321)

While these definitions highlight conceptual differences, in actual clinical settings the boundaries between the constructs of compulsive and impulsive behavior are much less clear. This commonality is reflected in the colloquial use of the word 'compulsive' for behaviors which are usually considered impulsive, such as 'compulsive' gambling, 'compulsive' overeating, 'compulsive' spending, etc. As point out by Dr Marks, these behaviors have many common features. Both are repetitious, difficult for the person to resist despite knowledge of potential adverse consequences, and may be triggered by both internal and external cues. The difference between impulsive and compulsive behavior is the underlying motivation that initially drives the behavior and the degree to which that behavior is egosyntonic. Initially, the goal of the impulsive behavior is to experience pleasure, whereas the motive underlying compulsive behavior is to prevent anxiety and feelings of subjective discomfort. However, as the compulsive or impulsive behavior escalates in frequency, the boundary between them increasingly becomes more blurred. As the impulsive behavior occurs more frequently, the individual may develop the feeling that he or she is no longer in control of the behavior, resulting in the impulsion becoming less pleasurable or even ego-dystonic. On the other hand, compulsive behavior initially is driven by the goal of alleviating anxiety and may eventually become more ego-syntonic and acceptable to the individual. Given the tendency for impulsive and compulsive behavior to overlap considerably, they may be difficult to differentiate clinically and conceptually. As Dr Marks points out, many individuals with chemical dependencies initially have characteristics more in line with our definition of impulsive behavior (e.g. pleasure driven) and then proceed to develop features resembling compulsions (e.g. compulsive use of a substance to prevent withdrawal and dysphoric states).

It may be that these distinctions between chemical dependence and behavioral compulsions and impulsions will fade as we learn more about underlying similarities in pathogeneses and common treatment responses. Given our current level of knowledge, and until more is known about them, it is probably wise in the official nomenclature to maintain the distinctions that attempt, albiet with difficulty, to separate these three concepts. Dr Marks' editorial is an excellent conceptual step in the pursuit of the needed new knowledge and data that will help to inform future systems.

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