

COMMENTARY

Behavioural addictions: common features and treatment implications

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Abstract

Marks' editorial is welcome in that it suggests common treatment approaches for chemical and behavioural addictions, namely, exposure and relapse prevention. There are other common features of addictive substances or activities which may explain their addictive potential: they act as operant reinforcers and as Pavlovian unconditioned stimuli, tolerance develops, an initial positive mood is followed by dysphoria and addictions are stimulated by common states (arousal, stress, pain). Most of Marks' features are not unique to addictions but apply to primary drive states (normal eating, sleeping, elimination, sex) and many apply to normal goal-orientated behaviour. Normal repetitive behaviour is more flexible than addictive behaviour, in allowing satisfactory substitution of alternatives. The restrictive range of activities which are satisfactory for the addict suggest that building up the behavioural repertoire may help in prevention and rehabilitation. Tics and Tourettes syndrome should not be regarded as addictions, since they involve simple, involuntary and non-goal-directed behavioural sequences. Considering addictions as goal-directed is important: addicts are often ambivalent about whether they want to give up or continue. This often underlies dropout and relapse. Treatment must address this issue.

Professor Marks suggests a number of addiction features which allow similarities and differences between chemical and behavioural addictions to be compared. This perspective is to be welcomed in that it stresses common approaches to the understanding and treatment of a variety of addictive problems. Psychological approaches, whether behavioural, cognitive or social learning views, have tended to emphasize the common features of addictive behaviours, whether they involve drugs or not (e.g. Orford, 1985). It is helpful to identify some of these common features, and Marks' analysis concentrates on those which stem from behavioural formulations. It seems especially useful to identify those features which have implications for treatment, such as external cues, secondary conditioning,

and habituation of craving and withdrawal by cue exposure. Moreover, worthwhile areas for future research are suggested by the question marks in Marks' Table 1.

The factor common to all the conditions referred to as behavioural addictions is that they consist of repetitive sequences of behaviours and that they are maladaptive. I am surprised that the table of behavioural addictions is not larger. Problem gambling, exercise addiction, workaholism, and 'compulsive' playing of computer games might all qualify.

Other features may be added: Donegan *et al.* (1983) outlined six properties which, they argued, addictive substances or activities have in common (they included food and gambling under the term 'substance'). These properties comprised:

(1) Ability of the substance to act as an instrumental reinforcer.

(2) Acquired tolerance—repeated use can result in reduced effectiveness of the substance.

(3) Development of dependence with repeated use. Repeated use produces withdrawal effects that motivate further use.

(4) Affective contrast. The substance tends to produce an initial affective state (euphoria) which is then followed by an opposing state (dysphoria).

(5) Ability of the substance to act as an effective Pavlovian unconditioned stimulus.

(6) Ability of various states (general arousal, stress, pain) to influence substance use.

Some of these properties suggest why such substances or activities have abuse potential and why they are so often refractory to treatment. Both lists of features suggest behavioural treatments of addictive behaviours.

Most of the features identified by Marks would not appear to apply specifically to addictive behaviour, whether behavioural or chemical. With the exception of the term 'counterproductive', most features apply to normal behaviours associated with primary drive states such as normal eating, drinking non-alcoholic beverages, elimination, sleeping and normal sexual behaviour. Moreover, most of these features would appear to be associated with motivated or goal-orientated action in general. It is interesting to note that Donegan *et al.* (1983) draw a parallel between addictions and affiliative behaviour. Specifically, they indicate common features between addictions and imprinting in animals, namely, tolerance, withdrawal, conditioning effects and effects of stress.

Since a number of the features identified in the editorial are shared by normal goal-orientated behaviour, it may be helpful to draw out aspects which these behaviours have in common. This allows us to avoid mystifying addictions by treating them as being qualitatively different from normal behaviour. This should enable us to apply knowledge about normal drive states and about motivated action to help us to understand addictions. Marks gives examples of this. The behavioural sequence is subject to operant reinforcement principles in that performing the sequence results in positive reinforcement (achieving the goal, euphoria, excitement) or negative reinforcement (reduction of discomfort). External cues, particularly those previously associated with the relevant behaviour, can cue the behavioural sequence. Classical conditioning

provides a theory for this, in that such cues act as setting conditions (discriminative stimuli) or as conditioned stimuli which take on some of the properties of the unconditioned stimuli and motivate action.

Both classical and operant learning theories provide explanations for the role of unreinforced cue exposure which results in extinction of the behavioural sequence. Of course in the case of primary drive states, extinction does not occur or is only very short term (habituation).

Marks considers similarities between addictions and normal repetitive routines such as jogging, gardening, being with friends. As he suggests, one difference is that such behaviour is not generally maladaptive. Another difference concerns the degree to which other substances or activities can be substituted (Donegan *et al.*, 1983). If one usually plays golf on Saturdays, then rain on that day is unwelcome but one can usually substitute a range of alternative activities. Typically, those who are addicted have a restricted range of substances or activities which will satisfactorily take the place of the addictive substance or activity. This perspective has implications for prevention and rehabilitation. Broadening one's behavioural repertoire so that reinforcement may be obtained from many sources may act as a protection from addiction and in a comprehensive treatment setting one needs to encourage participation in alternative satisfying activities.

I am not convinced that some of the conditions discussed by Marks in Table 1 are appropriately viewed as behavioural addictions. For example, tics and Tourette's syndrome fulfil relatively few of the criteria set out in Table 1. These behaviours differ from the others in that they are not goal-orientated actions but consist of relatively simple behavioural sequences. The term 'addiction' usually refers to indulgence in voluntary behaviours (or which were once voluntary). Tics and Tourettes are exceptions to this. All addictions are repetitive behaviours but not all repetitive behaviours are addictions.

This is not just a semantic quibble. If addictions concern action directed at obtaining certain goals then certain types of treatments are indicated. For example, getting the addict to decide that the goal is not a valid or desirable option would constitute an important part of therapy with many alcohol and drug misusers, problem gamblers and paedophiles. This is not so for trichotillomania, tics or Tourettes syndrome.

Encouraging addicts to view their goals as unhelpful is not just one aspect of treatment; it can be a primary and critically important aspect. Prochasta & DiClemente (1984) underlined this by referring to the phases of precontemplation and contemplation (before and during phases where the addict is not committed to giving up the problem behaviour, or where it is not viewed as a problem). Our work on relapse in opiate abusers (Bradley *et al.*, 1989) suggested that many addicts appeared to plan their own relapse by deciding that they would try drugs again, often because they had persuaded themselves that they could now control the habit. Moreover, addicts would often describe using again in an explicit or planned attempt to do something exciting or to lift a state of boredom or tension. At this stage, prior to becoming re-addicted, they tend to see drug use as voluntary behaviour. On becoming regular daily users, their perspective alters and a sense of compulsion emerges, associated with escape from the aversive state of withdrawal.

This focus on the value that the addict attaches to the object of the addiction is recognized by approaches such as Marlatt's Relapse Prevention and Miller's motivational interviewing. Both approaches use cognitive interventions in an attempt to get the addict to change the motivational valence of the object of the addiction. Moreover, approaches such as Therapeutic Communities, AA and NA, pay considerable attention to the addict's value system and use group pressure, persuasion and support to encourage the addict to view the addiction as a non-legitimate goal. It is unwise to assume that addicts

who say that they want to give up, and who engage in treatment, mean that they simply wish to get rid of this unwanted habit. It would be foolish to neglect this stage of treatment. Commonly, chemical addicts in treatment are in conflict, and their goals fluctuate between wanting the drug and wanting to be free of it. I would imagine that this is likely to be true of behavioural addicts who have positive hedonic tone associated with their addiction. Trichotillomania, tics and Tourettes would again appear to be exceptions here.

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