

Compulsive gambling

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Outline

- Prevalence
- DSM IV
- Theoretical assumptions
- Treatment
- An example

Screening and diagnosis

- South Oaks Gambling Screen
 - a 20-question instrument for evaluating pathologic gambling in patients
- Officially recognized in 1980 with the publication of the DSM III and classified as an impulsive control disorder (Sylvain, Ladouceur, & Boisvert, 1997).
- The inability to tolerate long delays to the reinforcer presentation, or preference for smaller immediate rewards over larger but more delayed rewards (Logue, 1995).

Criteria for pathological gambling according to DSM-IV (312.31):

- A. Persistent and recurrent maladaptive gambling behavior as indicated by five (or more) of the following:
 - (1) is preoccupied with gambling (e.g., preoccupied with reliving past gambling experiences, handicapping or planning the next venture, or thinking of ways to get money with which to gamble)
 - (2) needs to gamble with increasing amounts of money in order to achieve the desired excitement
 - (3) has repeated unsuccessful efforts to control, cut back, or stop gambling
 - (4) is restless or irritable when attempting to cut down or stop gambling
 - (5) gambles as a way of escaping from problems or of relieving a dysphoric mood (e.g., feelings of helplessness, guilt, anxiety, depression)
 - (6) after losing money gambling, often returns another day to get even ("chasing" one's losses)
 - (7) lies to family members, therapist, or others to conceal the extent of involvement with gambling
 - (8) has committed illegal acts such as forgery, fraud, theft, or embezzlement to finance gambling
 - (9) has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling
 - (10) relies on others to provide money to relieve a desperate financial situation caused by gambling
- B. The gambling behavior is not better accounted for by a Manic Episode.

Continuum of gambling

Petry (2005) has used a continuum of gambling, that is, Level 0 – 3. Anyone characterized at Level 0 gambling have not gambled at all. Level 1 gambling is characterized by gambling which not make any significant problems, while both Level 2 and 3 results in significant problems for the individual gambler and his or her family. Labels often used for Level 2 gambling are such as at-risk gambling and problem gambling, and Level 3 gambling is called compulsive gambling. Anyone characterized as Level 3 gamblers do engage in gambling in a way that impedes daily functioning (for details see American Psychiatric Association, 1994).

Prevalence

- It is calculated that 84 to 92% of adults take part in different types of games (Volberg, 1994).
- Thus, in the US those prevalence studies have shown that 0.1 – 1.9 % are Level 3 gamblers and the lifetime percent is 0.8- 4.0%. For Level 2 gamblers it is from 0.4 to 3.6 % and the lifetime percent is varying from 1.3 to 7.5.
- In Scandinavia, and countries like Sweden and Norway, the rates for Sweden are 0.6 for the current prevalence percent and 1.2 the for lifetime rate, Level 3 gambling respectively (Volberg, Abbott, Ronnberg, & Munck, 2001). In Norway the current percent of Level 3 gambling is 0.15, while lifetime rates is not stated (Gotestam & Johansson, 2003).

Comorbidity

- There is a correlation between substance user problems and gambling behavior compared with the general population (Petry, 2005).
- Studies have shown that psychiatric comorbidity is common among pathological gamblers and is associated with greater severity if other clinical problems (Crockford & el-Guebaly, 1998; Ibáñez et al., 2001).

Effect of treatment

- Studies which have compared compulsive gambling and addiction conclude that the results are more successful in the treatment of compulsive gambling than addiction, even if the costs of treatment are lesser (Lopez Viets & Miller, 1997).
- It has been argued that this could be connected to the fact that compulsive gambling is a more limited problem (Fekjar, 2001).

Prevalence vs. Access to gambling

- Prevalence has been shown to increase as a function of the opportunities for gambling (Pasternak & Fleming, 1999). Thus, it has been shown that, in the US, there is an increased density of organizations for anonymous gamblers in states where there are legal casinos (Lester, 1994). It has also been found that, in different states in the US, the prevalence of gambling increased after casinos were opened (Pasternak & Fleming, 1999).

Early diagnosis and outcome

- It has been argued that an early diagnosis leads to better outcomes, but generally there has been little international research on treatment of compulsive gambling (Pasternak & Fleming, 1999).
- In Norway, the treatment offered has been minimal, even though in this country the number of people involved in gambling per capita is much higher than in neighboring countries (Fekjar, 2001).

Theoretical issues

- Reinforcement schedules
 - Intermittent reinforcement schedules
- Immediacy of reinforcement
- The role of verbal behavior
 - Self-generated rules
 - Failure to understand independence of turns

Treatment

- Ongoing discussion on best practice for treating pathological gambling, whilst one have to take in account that it is a new area of research (Petry, 2005).
- Early treatments for pathological gambling were psychoanalytical in nature, short-term behavioral interventions have been more common (Toneatto & Sobell, 1990).
- Thus, most of the efficacy research has focused on cognitive therapy, cognitive behavior therapy and behavior therapy (Lopez Viets & Miller, 1997).
- Specific techniques which have been used are
 - aversive techniques (Barker & Miller, 1966, 1968; Cotler, 1971; Goorney, 1968; Seager, Pokorny, & Black, 1966),
 - stimulus satiation (Peck & Ashcroft as cited in Dickerson & Weeks, 1979),
 - changing stimulus control and response prevention (Echeburúa, Fernandez-Montalvo, & Baez, 2000),
 - imaginal desensitization therapy (McConaghy, Blaszczyński, & Allcock, 1991)
 - or imaginal relaxation (McConaghy, Armstrong, Blaszczyński, & Allcock, 1988).

Rationale

- Within behavior analysis some of the differential reinforcement procedures are examples of such a strategy.
 - Differential reinforcement procedures as
 - DRI (differential reinforcement of incompatible behavior) and DRA (differential reinforcement of alternative behavior) have been showed to be effective for various behavior problems.
 - For example have DRA procedures been used to reduce aggression by increasing alternative types of behavior (Roane, Fisher, Sgro, Falcomata, & Pabico, 2004), decrease problem behavior (escape from demands) and increase compliance behavior (Reed, Ringdahl, Wacker, Barretto, & Andelman, 2005) or increase alternatively self-self restrictive behavior and reduce self-injurious behavior (Lerman, Iwata, Smith, & Vollmer, 1994).
 - Likewise, DRI have been used in reducing excessive alcohol consumption (Glindemann, Ehrhart, Drake, & Geller, 2007), reducing maladaptive behavior (Spira, Koven, & Edlestein, 2004), self-injurious behavior (Tarpley & Schroeder, 1979), or increasing appropriate verbal behavior (Arntzen, Ro Tonnessen, & Brouwer, 2006; Dixon et al., 2004).
- As far as we know, such procedures have not been used in treating gambling behavior.

Purpose

- The purpose of the current study was to have the participant to be engaged in other activities and to establish some new types of behavior that could compete with the gambling behavior by using procedures as differential reinforcement of incompatible and alternative behavior. We also want to include a measure of pulse.

Participant

- 27-year-old man, teacher.
- Responded in accord with description of Level 3 gambling and the DSM IV criteria for pathological gambling.
- His debt because of gambling was about 420.000 kroner

Apparatus

- A Polar s 610 watch was used to measure pulse in settings that from experience had often led to gambling

Procedure

- *Self-monitoring*
- *Restriction of access to money beyond a certain amount*
- *Incompatible and alternative behavior*
- *Relapse prevention*
- *Pulse measures*

Method cont.

- *Test probes*
 - the participant was given access to a certain amount of money, on average 3900 dollars, a couple of days every month (ordinary pay days)
- *Treatment integrity*
 - The participant self-monitored gambling behavior, the work out and the study-group sessions during the current study and the recordings of these activities showed us if and when actually self-monitored
- *Design*
 - *AB-design*

Results

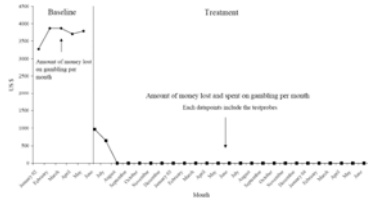


Figure 1. The Figure shows amount lost on gambling per month during baseline and the amount of money spent or lost on gambling during the treatment.

Conclusion

- In conclusion, the procedure used in the current study has proved to be effective in reducing compulsive gambling in a 27-year-old male. The results have also shown maintained treatment effects nearly two years after the start of the treatment.
