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## Cognitive Behavioral Therapy for Pathological Gambling: Cultural Considerations

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Gambling activities are present in almost every culture (1). Although most individuals who gamble do not develop gambling-related problems, 1–3% of the adult population and even higher proportions of adolescents develop pathological gambling. This disorder is characterized by a progressive and maladaptive pattern of gambling behavior that leads to loss of significant relationships, job, educational or career opportunities and even commission of illegal acts. Societal costs of pathological gambling are estimated at over 5 billion dollars annually (2). Individuals who meet some, but not full, criteria for pathological gambling are often considered problem gamblers (2–4), a condition that affects an additional 1.3% to 3.6% of the population and is also associated with substantial individual suffering and societal burden. Few pathological gamblers seek treatment, although about half appear to recover on their own (3,4). Gamblers Anonymous (GA) is the most popular intervention for pathological gamblers, but less than 10% of attendees become actively involved in the fellowship, and overall abstinence rates are low (2). Several medications have shown promise in the treatment of PG, but to date there are no FDA-approved medications for this disorder. Cognitive-behavioral therapy (CBT) has shown efficacy in the treatment of pathological gambling (5).

As with all psychiatric disorders, cultural factors such as the beliefs and values of one's group, its normative patterns of help-seeking behaviors and, in the case of immigrants, the process of acculturation, often play an important role in the initiation and maintenance of problem and pathological gambling (6). Furthermore, culture can powerfully influence the phenomenology of the disorder and the type of treatment acceptable for the patients (7,8). We present the case of a woman with pathological gambling whose beliefs, deeply rooted in her culture, contributed to the perpetuation of her disorder. A description of how these beliefs were also manifest in the patient's family further illustrates the role of culture in the patient's behavior. The case also serves to exemplify the use of CBT for pathological gambling and how the assessment of the patient's beliefs helped tailor the intervention to make it culturally consonant while still eliciting behavioral change.

### Cognitive-Behavioral Therapy for Pathological Gambling

We present a case of a patient with pathological gambling based on a cognitive-behavioral relapse prevention skills manual (3,5) that has shown efficacy in a large randomized trial (5).

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It consisted of 10 weekly 60-minute psychotherapy sessions. The primary treatment goal was gambling abstinence.

CBT is intended to help stop gambling behavior by helping the patient acquire specific skills using exercises introduced in each therapy session. Semi-structured homework assignments are used to facilitate practice and reinforcement of the skills learned during the week's session. Treatment provides an overall framework to facilitate lifestyle changes and restructure the environment to increase reinforcement from non-gambling behaviors.

During therapy, therapist and patients track gambling and non-gambling days, and patients are strongly encouraged to reward themselves for non-gambling days (3,5). Patients are taught to break down their gambling episodes into their precipitants (triggers), the thoughts and feelings that ensue, and the evaluation of both positive and negative consequences of their behavior. This process, called functional analysis, is one of the components of CBT. It is typically learned in the early stages of treatment and used throughout it, as needed. It consists of an analysis of the chain of thoughts, feelings and actions that lead the individual to place a bet, as well as an analysis of the advantages and disadvantages of gambling versus non-gambling. The purpose of functional analysis is to help patients realize that although the short-term consequences of gambling are pleasant (having fun or the possibility of winning some money), the long-term consequences are often very severe and include not only financial problems, but also difficulties with the family, friends, work or the law. Functional analysis helps the patient understand their gambling activities from a behavioral perspective and identify steps that can be taken to stop the process at different points, so that they can effectively reduce the probability of gambling in the future in response to similar situations (3).

Patients are also taught to brainstorm for new ways of managing both expected and unexpected triggers and to handle cravings and urges to gamble. Throughout the treatment patients are provided with tools and skills, such as engaging in alternative pleasant activities or calling a friend when experiencing cravings, to abstain from gambling. These skills help patients cope with triggers both internal (e.g., boredom, irrational beliefs) and external (e.g., turning down an offer to gamble, not entering gambling venues).

Each session concludes with a weekly tracking form to record triggers, cravings, or interpersonal difficulties and response strategies for those situations. Therapy also includes one session dedicated to addressing irrational thoughts. In the final session, the patient is encouraged to discuss possible events over the next ten years and consider how these events may affect future decisions to or not to gamble.

## Case Presentation

Ms. A was a 51-year-old Haitian woman who immigrated to the United States with her family when she was 25 years old. She married soon after her arrival, settled in a large city in the East Coast, and had two daughters. At the time of treatment, Ms. A had been working as a secretary for a business office for over 20 years.

Ms. A started gambling in Haiti at an early age, occasionally betting small amounts of money on domino games and local lotteries. Initially, her gambling behavior did not have any immediate adverse consequences although, paralleling the effects of early substance use, it may have predisposed her for pathological gambling in adulthood (9). At the age of 30, five years after her arrival in the United States, Ms. A began to gamble periodically in hopes of improving her financial situation. Over the next ten years, she began to lose increasing amounts of money playing slot machines at casinos. By age 40, Ms. A would often spend the entire weekend sitting at the slot machines without sleeping, and eating only snacks. After a few years of intense gambling activity, she was able to stop on her own without treatment. However, at

age 45, she relapsed, a common experience among pathological gamblers (10), into playing lottery tickets.

The relapse occurred after having very vivid dreams that she interpreted as depicting number combinations she should play in the lottery. Growing up in Haiti, she had learned to look for symbols in her dreams since, in her culture, dreams were believed to convey important life messages often represented by numbers. As a teenager in her country, books about dreams and numbers were very popular, and she read them fervently. She would also frequently gather with her family members to discuss her dreams and their meanings, and agree on the numbers the dreams suggested should be played on the lottery. These conversations about dreams and numbers among her family members continued to be an important topic in their almost daily conversations after immigrating to the US.

As the duration of her relapse lengthened, Ms. A gambled greater amounts of money and more frequently. She became increasingly preoccupied with thoughts about gambling and number combinations. Her continuous efforts to reduce or stop gambling resulted in irritability and restlessness. Although she was aware that she was losing more money than she was winning, she would often gamble the day after losing money in hopes of winning back (“chasing”) her losses. She concealed the extent of her gambling and her financial situation from her family. Occasionally, she had suicidal ideation, but never made any suicide attempts, which are common among pathological gamblers (11).

As a result of her gambling behavior, Ms. A. began to experience financial problems. One of Ms. A’s primary motivations to seek treatment was the constant arguments with her husband about the monetary constraints caused by her gambling activities. She also felt ashamed and guilty about the money spent gambling over the years. Although she experienced financial difficulties due to the gambling behavior, Ms. A did not commit any illegal acts to finance her gambling activities, nor did she rely on others to bail her out of financial difficulties.

Ms. A reported that her gambling did not interfere with her work and household chores because it only took her a few minutes during the day to purchase tickets at convenience stores located close to her workplace and home. She never missed days at work and performed her work well. She only noted mild difficulties concentrating at work during the minutes prior to the lottery deadline. She did, however, note the impact of gambling on her social activities. She reported being more socially withdrawn, spending less time with her daughters, and increasing conflict with family members due to her overall irritability.

Although comorbidity is common among pathological gamblers (12–14), Ms. A did not meet full criteria for any other psychiatric disorder. She did, however, report experiencing several depressive symptoms over the past few weeks, including little interest or pleasure in doing things, feeling guilty, and becoming easily annoyed or irritable. Thus, the patient met the following DSM-IV criteria for pathological gambling: 1) increased preoccupation with gambling; 2) having the need to gamble increasing amounts of money to achieve excitement; 3) unsuccessful efforts to stop gambling; 4) restlessness and irritability when trying to stop gambling, 5) after losing money gambling, returning another day in order to get even (“chasing” her losses); 6) hiding the extent of her gambling from her family; and, 7) feeling she was jeopardizing her relationship with her husband as a result of her gambling. Although Ms. A did not report: 1) gambling as a way to escape from problems or in order to relieve a dysphoric mood; 2) committing any illegal acts to finance her gambling; or, 3) relying on others to provide money to relieve her financial situation, overall Ms. A manifested a persistent and recurrent maladaptive gambling behavior that met 7 of 10 DSM-IV diagnostic criteria for pathological gambling (five or more are needed for a diagnosis of pathological gambling), and was not accounted for by a manic episode.

## Treatment

Since the initial treatment contact, Ms. A clearly stated her main goals were to abstain from gambling and improve her financial situation and her relationship problems. One of her main concerns was that although she had been able to abstain from gambling in the past, she found herself unable to do so after her last relapse. At the initial evaluation, Ms. A scored 20 on the Yale Brown Obsessive Compulsive Scale adapted for Pathological Gambling (PG-YBOCS), a valid and reliable measure of pathological gambling severity (with range 0–40).

Early in treatment, Ms. A soon identified her dreams and visions as her main triggers for gambling. She described two types of dreams. In one type of dream, either Ms. A actually “saw” numbers, or one or more characters in the dream disclosed “winning” numbers. These dreams were very vivid and constituted very strong triggers to gamble. The other type of dream, to which she referred as visions, was more common and happened throughout the day. Those dreams contained images and actions of different individuals she knew, including family members, friends, coworkers, and neighbors. For these visions, Ms. A had predetermined number conventions derived from Haitian culture and conversations with her family. That is, the images and actions she saw conveyed number combinations. As an example, she would describe a dream in which she saw an unknown little girl talking to her uncle. Ms. A said that dreaming about children meant the number 32, while dreaming about a male family member represented the number five, leading her to create different sets of numbers with these three digits. In other dreams, the numbers were more obvious, such as in a dream in which she saw herself walking on a street and seeing a license plate with a certain number. Ms. A typically woke up everyday and started attributing numbers to the images that appeared in her dreams and visions. She would write down the numbers and generate a list of different combinations to buy a series of lottery tickets that day. Depending on the results of the first drawings, she would generate a new series of combinations for the next drawing. Ms. A. also reported other triggers for gambling (15), including her wish to solve her financial problems, her family’s constant involvement in gambling activities, and the sight of gambling advertisements or convenience stores that sold lottery tickets.

Having identified a variety of triggers, Ms. A. began to address them to minimize the possibility that they would result in gambling. For example, she started making the conscious effort to avoid recalling her dreams. This was difficult due to her longstanding habit of recalling them, but was effective in controlling her gambling behavior. She also stopped carrying with her the list of numbers generated in the morning, and later replaced generating the list with doing her weekly therapy homework assignments. During treatment, therapist and patient maintained a tracking graph on a grid of gambling and non-gambling days. Graphing all gambling and non-gambling days together onto a sheet, the patient was able to visualize her progress. After the third session, the patient was able to notice that she had decreased the amount of money spent on gambling and bought lottery tickets every other day rather than daily.

The patient also started to actively avoid some other gambling triggers. She avoided the convenience store close to work, and stopped watching gambling T.V. shows and advertisements, including the lottery results. She contacted the customer service at the casinos she used to visit, requesting that they stop sending her their invitations and publicity. She purposely kept busy during the hour prior to the lottery deadline, to avoid buying lottery tickets for the next drawing.

For Ms. A, the most effective strategy to abstain from gambling was to conduct functional analyses every time she experienced urges to gamble. Describing her gambling activities, the patient talked about the anxiety she experienced before buying lottery tickets and the frustration, shame, and guilt she felt once the results were published and she was confronted

by the amount of money lost that day. Conducting functional analyses allowed the patient to see how, despite a few wins, the overall result was always monetary loss and greater debt. The patient gradually started to feel less excited about thoughts of winning. Eventually, even winning became an anxiety-provoking situation.

The patient experienced intense frustration on one particular occasion when she had a dream about the winning number, but did not feel the dream with enough strength. She hedged her bets, rather than put all her money on the winning number. This experience filled her with doubt on her abilities. She started to experience her ability to foresee the future in visions and dreams as an unpleasant responsibility. In the past, stressful familial events had also appeared in her dreams before they happened, but she had been unable to influence those events, a very painful experience. She realized now that, similarly, “knowing” the correct number did not lead her to win. As a result, her gambling activities were making her financial situation worse. At that time, around the midpoint of the treatment, the patient’s PG-YBOCS scores had decreased to 11. Tracking the number of gambling days revealed the patient was now gambling once or twice a week.

The therapist conceptualized the knowledge acquired through her dreams as a special type of erroneous belief. Erroneous beliefs are commonly found in gamblers and often manifest as beliefs in “lucky days” and “lucky streaks”. They can also include ignorance of the true probabilities of winning and failure to understand the independence of events (“I lost three times on this slot machine, so I should win soon”).

In CBT, at least an entire session is generally devoted to understanding and challenging erroneous beliefs. The purpose is to help the patient identify their thinking errors regarding their odds of winning. However, in this case, given the strong family and cultural support for the patient’s cognitions, the therapist’s approach was to subtly question Ms. A’s beliefs, without confronting them directly. The therapist focused on having the patient recognize that the dreams and visions did not consistently provide her with winning numbers, rather than challenging the irrationality of the belief. This approach, and the patient’s progressive perception of her dreams and visions as a burden, strengthened the patient’s decision to ignore her dreams and visions related to gambling. In so doing, a main trigger of her gambling was removed.

During subsequent sessions, the therapist coached Ms. A on assertiveness and gambling refusal skills. It was difficult for the patient to control her urges to buy lottery tickets after participating in “number conversations” with her family members or coworkers. She decided during one of these sessions to tell her mother and sisters about her wish to abstain from gambling. However, after two weeks of abstinence, Ms. A lapsed one day. She bought a lottery ticket after one of her sisters told her a very vivid dream that she believed to be the winning number for the next drawing. Using the gambling tracking chart, the patient was able to see that weekends, when she spent longer hours with her family members, represented a risk.

This lapse led Ms. A to identify family members and conversations about numbers as additional triggers to gamble. Ms. A had to reiterate to her family members to avoid discussing numbers, dreams, or visions when she was present. This was difficult initially, as her family would pressure her to continue gambling, given its importance in family life and beliefs. However, Ms. A eventually prevailed and found it helpful to avoid these conversations. Having the strength to voice her opinions and wishes also raised her self-esteem and self-efficacy. Around that time, she learned that one of her brothers had a gambling problem when they were living in Haiti. This knowledge increased her motivation to remain abstinent, as she remembered the financial struggle her brother experienced before immigrating to the United States.

The last two sessions served to solidify Ms. A’s gains and refine her skills. The patient had already achieved abstinence and felt strong and confident. Her urges were mild. The patient

spent more time in alternative pleasant activities, such as physical exercise, going out with friends or to church, helping organize holiday festivities, and participating in other community activities. She also spent more time with her husband and daughters during the weekdays and attended social gatherings with them.

Although Ms. A. had initially reported that her gambling activities never affected her work, toward the end of treatment, she noticed an improvement in her ability to concentrate and complete tasks more efficiently. Her abstinence helped improve her relationship with her husband, with whom she now argued less. She was also excited about being able to buy more things for her home as a result of not spending money on gambling. At the end of the tenth session the patient's PG-YBOCS gambling scores had decreased to 2, within the normal range. The gambling tracking chart now was an upright line, since she had not gambled for a month on a row. The process of tracking non-gambling days increased Ms. A's perception of control of her gambling behavior, and she reported it became a strong motivation to remain abstinent.

After completing the 10 weekly sessions, Ms. A continued to come to therapy for monthly follow-up sessions. At follow-up, 10 months later, Ms. A continued to abstain from gambling. During these sessions, the therapist and patient continued working on strengthening the skills learned during the acute treatment and brainstorming alternatives to gambling. The patient was also referred to a therapy group for women who want to remain abstinent from gambling, which Ms. A found helpful. It is likely that Ms. A will require continuous treatment and follow-up for pathological gambling. If the patient's preferences or situation change, other therapeutic alternatives, such as medication for other psychiatric symptoms, motivational interviewing, or Gamblers' Anonymous, could also be considered.

## Case Discussion

Pathological gambling is a common disorder with severe consequences for patients and their families. At present, the treatment with best empirical support is CBT. This case describes its general principles, and provides an example of how CBT techniques can be adapted depending on the characteristics of each patient. In particular, the case of Ms. A illustrates the contribution of beliefs, especially those part of a cultural system, to the perpetuation of a patient's disorder; the influence of family members' attitudes, moved by their cultural beliefs and values, in shaping behavior; and the consideration of these issues to guide specific interventions, such as challenging irrational thoughts or helping patients devise strategies to change their behavior in a culturally-congruent manner.

Irrational beliefs are important factors in the initiation and maintenance of many psychiatric disorders, including pathological gambling. Identifying them, pointing out their consequences, and progressively challenging them are key aspects of CBT. For example, special dates, playing numbers encountered during the day, or lucky days, create in some patients a sense of possessing a special knowledge that putatively increases their chances of winning. Those beliefs can be powerful triggers to gamble even after long periods of abstinence, and often trigger a relapse. It is not uncommon to find pathological gamblers who act on the numbers they see in their dreams. For Ms. A, however, dream and numbers interpretation were particularly important because they had been part of her belief system since her childhood, long before she developed a gambling problem. Furthermore, in her case, the belief that dreams foretold the numbers to play on a given day was supported by her family and her culture.

For these reasons, it was anticipated that engaging Ms. A in viewing this belief as irrational would be difficult. Subtly and progressively questioning her beliefs, as was done in this case, was an adjustment of a CBT technique to the patient's culture, since standard treatment usually challenges cognitive distortions more directly. Challenging her belief directly would have

probably appeared to be minimizing the patient's and her family's cultural norms. This could have led the patient to argue for the "truth" of symbolism in dreams, make her refuse to use CBT techniques and possibly cause her to leave treatment prematurely, feeling misunderstood or misjudged. Because the patient had come to treatment due to her gambling losses, it was believed that focusing instead on the less central belief of the ability of dreams to provide winning numbers would be much more effective with her.

By doing so, the patient was able to distance herself from her gambling behavior, as she started to perceive throughout treatment that her number system was unreliable. For example, as the therapist explored the triggering effect of dreams, she asked the patient about her experience with the dreams, their accuracy at predicting winning numbers, and her feelings about her failure to win despite playing the numbers suggested by the dreams. These questions helped create discrepancy between the patient's beliefs (and wishes) and reality. Building the challenge to these beliefs, the therapist was able to engage the patient in treatment and help her begin avoiding external and internal triggers.

Knowledge about the role of these beliefs in the lives of the patient and her family was also crucial in this case. Following a period of abstinence, the patient suffered a lapse to gambling when her sister urged her to play certain numbers that she had interpreted from a dream. Contrary to relapses, where the patient returns to the addictive behavior for an extended period of time, brief lapses such as what occurred with this patient can be very useful to the treatment of addictive disorders. Although much of the relapse prevention treatment approach focuses on helping the patient build skills to avoid relapse, lapses can help the therapist and the patient identify situations for which the patient needs more help. These lapses can be best used therapeutically if they occur while the patient is still in treatment, because then the patient and therapist can quickly analyze the lapse and incorporate the lessons learned into the treatment. The lapse that occurred during Ms. A's treatment helped her to identify her family discussions about dreams and numbers as triggers to gamble, and allowed the therapist and the patient to explore ways of dealing with them.

The lapse was also instrumental in helping the patient set limits with her family in conversations on gambling, numbers, and dreams. Solely pursuing an approach focused on setting limits could conflict with her cultural norms of family interactions, which valued harmony among family members, and fail to elicit from her family's support. Given the familial endorsement of these beliefs about dreams and numbers, however, finding an acceptable way of setting limits was a key aspect of achieving and maintaining abstinence from gambling. Rather than readily teaching the patient feedback and assertiveness approaches often used in mainstream American culture, eliciting from Ms. A how limits could be set within her family and culture made it easier for her discuss her difficulties with her family and enlist their support in not having those conversations in her presence (had this approach not worked, Ms A and the therapist would have considered alternative strategies and developed additional skills to be more assertive if necessary).

Ms. A's approach also exemplifies the broader aspects of how family or other support systems can be helpful in stopping gambling. Although the family was a trigger to gambling, it also provided an important image for Ms. A that strengthened her resolve to remain abstinent from gambling-- her brother's experience. This fact was particularly important given that several studies suggested that pathological gambling may have a familial component. Consistent with those studies, associations have been reported between pathological gamblers and allele variants of polymorphisms at dopamine receptor genes, the serotonin transporter gene, and the monoamine-oxidase A gene (16–18). Twin studies have also suggested a genetic component in the etiology of problem and pathological gambling (19).

## Conclusion

We have presented the case of a Haitian woman that illustrated the role of culture in the phenomenology and treatment of pathological gambling. The case showed how cultural beliefs can contribute to the etiology of psychiatric disorders, how the manifestation of symptoms can vary by culture, and how CBT can be integrated within belief systems of different cultures.

Cultural perceptions related to psychiatric disorders may also influence treatment-seeking behaviors. For cultures with highly permissive beliefs towards gambling, it might be difficult to label certain gambling behaviors as a psychiatric disorder, which could consequently reduce the likelihood that individuals in need will seek services.

The advantages of learning about the patient's culture to provide appropriate and efficacious treatment have been well established (20). Those benefits include the ability to build trust, to demonstrate openness and interest by recognizing cultural belief systems and the role they play in the initiation and maintenance of a patient's condition, and to **adapt** the treatment to use those beliefs as help rather than barriers to treatment.

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