

Treatment of adolescent gambling problems: More art than science?

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Despite adolescent problem gamblers' relatively high prevalence rates, most go untreated. Estimates are that only 10% of adults with gambling problems and even fewer adolescents seek help for a gambling problem. Adolescents do not present in the same manner as adults; they don't lose their wives, husbands or children (they are generally unmarried), don't lose a home (they typically live with their parents), haven't lost a job (most often they are students) and their accumulated debts, while impactful for them, tend not to be at the same level as those of adults. Yet, the negative social, psychological, familial, mental health, and often legal consequences resulting from their excessive gambling can be pervasive. This chapter explores the possibility of different treatment approaches for adolescent problem gamblers and presents the model employed at the International Centre for Youth Gambling Problems and High-Risk Behaviors as a model for helping these youth.

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INTRODUCTION

The fact there have been no universal empirically validated treatment programs established for problem gamblers has not deterred clinicians from employing a wide diversity of treatment approaches. These paradigms, explained more fully by Gupta and Derevensky (1), Petry (2), National Research Council (3), McCown and Howatt (4) and Shaffer and LaPlante (5), suggest that most clinicians adopt either one or more of the following approaches in treating adult pathological gamblers; psychoanalytic/psychodynamic, behavioral, cognitive, cognitive-behavioral, psychopharmacological, physiological, self-help or addiction-based models. Several of these approaches have specific time frames and more or less standardized approaches and goals for each session (these are typically the cognitive or behavioral interventions), others are more dependent upon the individuals' concomitant psychological or mental health problems as assessed by the therapist, while others advocate for self-help strategies (these can be accomplished through tutorials, workbooks or support group meetings). A number of these models are more fully explained throughout this book.

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There has been an abundant amount of research conducted during the past thirty years clearly suggesting that problem gamblers are not a homogenous group, rather they not only differ on the basis of their gender, age, types of gambling activities preferred, length of proposed treatment plan but on critical bio-psycho-social individual aspects. This conceptualization and understanding has suggested that rather than incorporating a rather restrictive approach suitable for all pathological gamblers, a more tailored approach has merit. This is not to suggest that one's theoretical ordination must be altered but rather the therapist must be cognizant of the individual's underlying problems, cognitive distortions, co-occurring mental health disorders, gambling availability and accessibility, triggers prompting one to gamble, one's support system as well as the individuals gambling habits, preferences, and associated gambling-related problems.

The mechanism of addiction not only involves direct physiological effects but involves a cascade of events, cognitions, and consequences that lead to short-term pleasurable and rewarding experiences, but typically results in both short and long-term harm. Precipitating events or emotions, erroneous beliefs, cognitive distortions, and intermittent reinforcement schedules work together to make gambling a potentially highly addictive activity for some individuals. Given this, psychological treatment and intervention for individuals with a gambling addiction must address all steps of the mechanism underlying the addiction in order to achieve meaningful and lasting change.

Given the paucity of research examining the efficacy of treatment programs and outcomes in general, and for adolescents in particular, with respect to problem and pathological gambling, it is not surprising that there currently exists no Best Practices. This is likely a result of the lack of systematic examination, the diversity of approaches, the heterogeneity of individuals seeking help, the small numbers of youth seen in treatment programs, and the limited research community examining this issue. Walker, Schellink and Anjoul (6) highlight the notion that human gambling is an enigma. How to best understand motivation for gambling where individuals are willing to wager on the outcome of unpredictable events when the expected return is less than initial stake, may be difficult to explain if the central premise of gambling focuses on the notion of winning money. If, however, one assumes that other concomitant reasons for engaging in this behavior include enjoyment, excitement, as well as social aspects, winning money then becomes only one of a number of important reasons for engaging in this behavior. If one further assumes that the major motivation is the need to relieve some form of mental issue/disorder or dysregulation, coupled with erroneous beliefs and cognitions, then it is possible to better understand why some individuals continue to gamble in spite of repeated losses and their desire to stop. Do cognitions become distorted and erroneous beliefs overtake common sense? Does the need for an exhilarating experience, a desire for an adrenalin rush or the impulse to satisfy a craving urge trump rational thought? Understanding the underlying reasons why individuals gamble and develop excessive gambling problems will undoubtedly help in the treatment of problem gamblers.

There is clear evidence that most adults and adolescents learn from their mistakes and while they sometimes exceed their preset gambling limits, both in terms of time and/or money, and may suffer some short-term consequences, most eventually refrain from excessive gambling; some may

stop while others retake control of their wagering behavior. Yet for some individuals, their physiological needs, perceived skill and erroneous cognitions, and/or need for escape from daily stressors leads them to increase the frequency and intensity of their gambling in spite of the fact that they realize that their odds of winning are indeed limited. Where else can one find large numbers of intelligent people who leave their intelligence outside the door when they enter a casino? Can it be that most individuals think they are smarter than the owners of casinos who have invested hundreds of millions and billions of dollars?

Adolescents in many ways are in fact no different from adults when it comes to the underlying reasons for their gambling although it has been argued that brain maturation is not completed until approximately age 24. Yet, the developmental period of adolescence is marked by distinct beliefs, physiological and psychological changes, concerns and challenges. As such, most therapists typically would agree that an understanding of the psychology of adolescence would be extremely important in the treatment of most disorders.

While there is no empirically-validated treatment protocol specifically designed for adolescents with a gambling disorder, a limited number of treatment studies have been reported in the psychological and psychiatric literature. These studies however, have typically been predicated on very small samples of treatment-seeking adolescents (7) and have been criticized for not upholding rigorous scientific standards (3,8-10). For a description and overview of the adult studies the reader is referred to Petry (2), Shaffer and LaPlante (5), Toneatto and Ladouceur (11), and Zangeneh, Blaszczynski and Turner (12). The limitations of these studies, in particular for adolescents, are illustrated in a study by Ladouceur and his colleagues (7) which provided one of the earliest studies examining a cognitive-behavioral approach in treating four adolescent male pathological gamblers. Their treatment paradigm included five components: (a) general information about gambling, (b) cognitive interventions and strategies, (c) problem-solving training, (d) relapse prevention, and (e) social skills training. Cognitive therapy was provided individually to these youth for approximately 3 months (a mean number of 17 sessions). Ladouceur and his colleagues (7) reported clinically significant gains resulting from treatment, with three of the four adolescents remaining abstinent between three and six months following treatment. They further concluded that the treatment duration necessary for adolescents with severe gambling problems was relatively short compared to that required for adults, and that cognitive therapy represents a promising new paradigm for treatment of adolescent pathological gamblers. Although treatment effects based on this study were promising, the limited sample (four adolescents) is not sufficiently representative to draw firm conclusions. It is also important to note that these adolescents reportedly had no co-occurring mental health or addictive disorders. Understanding erroneous cognitions and beliefs remained a central focus. Their premise was that adolescents, like their adult counterparts, will continue to gamble in spite of repeated losses as they maintain the unrealistic perception and belief that ultimately they are able to recoup their losses (chasing behavior). Ladouceur and his colleagues (7) contend that it is the desire to recoup losses and win money that provides the primary motivation to gamble. In a number of studies we have found that for most adolescent gamblers the primary reasons for gambling are for the enjoyment, excitement as well as to make money, with 50% of all

adolescents problem gamblers reporting doing so as a means of escaping stressors in their life, be they academic, social, familial, interpersonal, legal, etc. (13). However, the desire to recoup losses, while important, is typically not the underlying reason driving their gambling behavior. Yet, when discussing this issue with adolescent problem gamblers it is frequently reported that all they want to do is “get even” and recoup previous losses given their excessive debts. Having adolescents realize the underlying reason motivating their gambling behavior becomes central to long-term changes and has become the focus of our treatment paradigm. As previously noted in the chapters within this book by Gupta and Derevensky (14), and Shead, Derevensky and Gupta (15), understanding the etiology and risk factors for the individual remain central to developing an effective treatment strategy.

Treating youth: The McGill treatment approach

It is important to preface the section describing the McGill treatment program by acknowledging that like many other addictive behaviors, there is evidence that a number of individuals with gambling disorders have likely modified their behaviors without formal psychotherapeutic or psychopharmacological treatment (5, 16), with a number of individuals electing self-help or support group recovery programs. Shaffer and LaPlante (5) have argued that if gambling disorders are similar to substance abuse disorders then it is plausible that many individuals recover through a process of natural recovery at a similar rate as other addictive disorders (17). Given that very few adolescents present for treatment (adolescents tend not to present themselves for counseling or therapy for most psychological disorders), and the general prevalence rates for disordered gambling among adults are significantly less than for adolescents, it would appear that most teens go through a process of natural recovery sometime during these transitional years. However, it is essential to note that there remain long-term, sometimes life-altering negative consequences, resulting from their pathological gambling (personal, interpersonal, familial, school, legal and financial consequences).

For the past 15 years, we have been providing treatment for youth (adolescents and young adults) experiencing gambling and gambling-related problems. The treatment facility is housed within McGill University’s International Centre for Youth Gambling and High Risk Behaviors. Our understanding of risk and protective factors associated with youth experiencing gambling problems during this period has grown exponentially. At the same time, we have witnessed a distinct shift in the gambling activities in which young people engage. While sports wagering is still commonplace, many young people are now becoming excessively involved in poker (Texas Hold’em being the game of choice) and Internet wagering (poker playing, sports wagering, casino games are also quite popular). Much of this poker playing has been instigated by the pop up messages and advertisements received by adolescents on their personal computers, the heavy advertising on television, radio and in the print media, and the phenomenal success of televised poker tournaments (strongly endorsed by multiple Internet gambling sites) (18, 19). The fact that a number of celebrities, well known by these young people, and that past winners of the World Series of Poker have been quite young (early 20’s), winning millions of dollars, has strengthened its appeal. Still further, a

recent study conducted by McBride and Derevensky (20) among college students found that a primary reason for Internet wagering was to relieve boredom. As also noted by Griffiths, Parke and Derevensky in this volume (21), a growing number of adolescents and young adults are using Internet wagering as their preferred venue due to its convenience, easy accessibility, less restrictive and lax enforcement of age requirements.

While no formal evaluation of the treatment outcome has occurred due to the diversity of our clientele and the need to individualize and match clients with our clinical intervention, a great deal of knowledge and information has been acquired into the strategies that promote gambling abstinence, techniques to help youths' overall improvement of their psychological well-being, and the importance of relapse prevention.

There is some controversy among clinicians and academics concerning whether abstinence or controlled gambling is acceptable for adults with severe gambling problems (22-26). Our clinical experience with adolescents and young adults suggests that abstinence remains a desired goal given that this age group of individuals have difficulty not in setting time and/or money goals but rather in maintaining and adhering to these limits. In spite of the large percentage of adolescents and young adults preferring a controlled gambling approach ("Just teach me to gamble in moderation so I can enjoy myself"), our research and clinical experience suggest that while controlled gambling can be an interim goal, abstinence is necessary in order to prevent increased levels of gambling and relapse. Ultimately our goal is to have these youth resume a healthy lifestyle, ensure that no other risky behavior replaces their gambling, and abstinence is achieved.

Similar to adolescents with other mental health issues, adolescents with gambling problems typically do not present themselves for treatment in the absence of some type of outside (typically parental or peer) pressure or influence. A number of reasons have been suggested including: (a) fear of being identified; (b) the belief that they can control or stop their gambling without support; (c) self-perceptions of invincibility and invulnerability to future negative consequences; (d) negative views of therapy; (e) guilt associated with their gambling problems; (f) a lack of recognition and acceptance that they have a gambling problem despite scoring high on gambling severity screens or associated gambling problems; (g) they are not ready to stop their gambling in spite of the negative consequences; and (h) their inherent belief in natural recovery and self-control (for a more detailed explanation see Derevensky & Gupta and Derevensky, Gupta & Winters (27, 28). DiClemente, Story and Murray (29), adopting the basic elements of the process of intentional behavior change model originally outlined in the Stages of Change from the Transtheoretical Model (30), have argued that the motivational aspects for change are indeed crucial. Thus, while "strongly encouraged" to seek help, the individual must in fact desire to ultimately change his/her behavior. Movement from the Precontemplation stage (not considering initiating or lack of real desire to change the behavior) to Preparation (commitment and planning) to Action (engaged in actual behavioral change) and finally to the Maintenance (sustaining behavioral changes) stage sets an optimal framework for working with youth who are either unmotivated to change or possibly who have modified their behavior but are concerned about relapse (a number of adolescents and young adults have entered our treatment program already being abstinent but are concerned about relapse).

Referrals from parents, friends, teachers, the court system, and the local Help/Referral Line are the primary sources through which we acquire our treatment population. As part of our outreach prevention/intervention program, posters and brochures are distributed to schools, media exposure and media campaigns are frequent, and workshops are provided for school psychologists, guidance counselors, social workers, teachers, and directly to children and adolescents to raise awareness about issues related to youth gambling. As a result of this outreach program, we receive calls from a number of adolescents and family members directly requesting assistance. The Centre's Internet site has also generated several inquiries for online help and assistance.

Research and our clinical experience suggest that adolescent problem gamblers develop a social network consisting of other peers with gambling problems (13, 31). This results in clients recommending their friends for treatment. Once the adolescent accepts and realizes that he/she has a serious gambling problem, they typically become more acutely aware of gambling problems amongst their friends. Eventually, some successfully convince their peers to seek help as well.

Since adolescents with gambling problems have limited access to discretionary funds and many initially seek treatment without parental knowledge, treatment is provided without cost. This is obviously not practical for treatment providers in independent practice. However, State, Provincial, and/or National funding (or support by insurance providers where available) is crucial for the establishment and maintenance of treatment centers for adolescents with a gambling addiction.

The location of the treatment facility plays an important role in successfully working with young gamblers. Concerns about being seen entering an addiction treatment facility, mental health centre or hospital may discourage some youth from seeking treatment. Accessibility by public transportation is essential as most young clients do not own cars or have money for taxi fare. Although our clinic is adjacent to a University counseling centre, it operates as a self-contained facility exclusively for work with youth experiencing gambling problems. The Centre is located centrally in a large urban setting.

The McGill Treatment Approach

The treatment approach has been developed and is predicated upon recent research findings and our clinical work with adolescents and young adult problem gamblers. It is important to reiterate that the treatment philosophy is predicated upon the assumption that sustained abstinence is ultimately necessary for youth to recover from gambling and gambling-related problems, to reduce the likelihood of relapse, and that many life areas and mental health issues must be concomitantly addressed (e.g., social networks, coping skills, cognitive distortions, attention deficit hyperactive disorders, depression). We have observed a large percentage of youth in treatment whose initial goal is "controlled gambling." There has been some debate between clinicians about whether complete abstinence or controlled use should be the final goal for addictions therapy among adults. Our clinical work suggests that while controlled gambling (ability to respect self-imposed limits) can be an interim goal for adolescents, abstinence is eventually necessary. Accepting that adolescents set initial goals to decrease their gambling (controlled gambling) instead of becoming abstinent, allows us time to develop strong working alliances with clients before introducing the need for sustained abstinence. It is our clinical judgment that if we initially encouraged adolescents towards total abstinence as a prerequisite

for treatment, we would risk losing a large number of adolescents due to their sense of failure or disconnect between their objective and that of the treatment provider.

In our clinic, attempts are made to closely monitor these youth for at least one-year post treatment, with long-term follow-up often being difficult. Several youth call periodically beyond the one-year follow-up period to report their progress, but we remain acutely aware that youth who may have relapsed may be unwilling to contact the treatment centre again unless they are prepared to re-enter treatment. There is also some evidence with adults that pathological gamblers who have successfully completed treatment and who have relapsed often fail to return to the same treatment centre for assistance but are more likely to seek treatment elsewhere given their belief that they do not want to disappoint their original therapists (32).

Steps of treatment

1. Intake interviews

Intake interviews typically take place over several sessions. The primary goals of the intake sessions include diagnosis of gambling severity, identifying mental health issues, the completion of a functional assessment, understanding the individual's motivation and readiness for change, establishment of a good working alliance marked by mutual respect, and preliminary work on fostering motivation if the client's motivation appears tenuous. Each of these goals are discussed separately below.

Diagnosis. The intake procedure includes a semi-structured interview using the DSM-IV-MR-J or DSM-IV criteria (depending upon the individual's age) for pathological gambling as well as the identification of relevant gambling behaviors (e.g., preferred activities, frequency, wagering patterns, history of gambling, accumulated losses, financial and legal issues, etc.). It must be underlined that although the diagnostic instruments have utility in research settings, within the clinical setting, adopting a dichotomous view of a gambling addiction can be too simplistic. The trained and specialized clinician should feel comfortable to incorporate clinical judgment when diagnosing presence and particularly severity of gambling problems. The fact that the individual has presented himself/herself for treatment of a gambling problem is in itself strong evidence of a gambling disorder. As previously noted, a number of youth enter our treatment program having already abstained from gambling but are seeking assistance concerning maintenance and are acutely aware of relapse. Many of these youth have had gambling-free periods but have eventually relapsed.

Functional assessment. The functional assessment is a vital component when planning any therapeutic intervention. The functional assessment includes information gathering in a number of areas including triggers for problematic gambling, cognitions, behaviors, emotions before and during gambling episodes, and consequences following gambling episodes. Triggers can include specific places (casinos, bars with electronic gambling machines, Internet pop-up messages, televised or radio advertisements, poker parties etc.), people (socializing with friends who gamble), activities (going to a party, excessive consumption of alcohol), or dysregulation of emotional states (e.g., anxiety, loneliness, sense of loss, depression). While initially many individuals are unaware of their specific triggers, they can be identified through discussions of prior experiences or

by examining the client's written journals (a component within the therapeutic process). Cognitions and cognitive distortions that follow from exposure to triggers must also be identified and made explicit (e.g., "If I gamble now, I will be more relaxed for the party tonight and I will have a better time"), as well as emotions that might follow from the cognitions or interpretations of events. Finally, consequences following excessive, out-of-control or binge gambling episodes should be explored.

Assessing and fostering motivation for change. It has been suggested that those individuals who present themselves for treatment are distinct, representing a minority of young pathological gamblers. It is important to note that while those individuals seeking help voluntarily come for treatment, a number may be less than motivated to initially participate. A considerable number attend as a result of parental pressure, mandatory referrals from the judicial system, or are strongly encouraged by significant others (i.e., boyfriends, girlfriends) and comply for fear of losing relationships. One youth who was brought in by his parents commented on the DSM-IV list of items on a poster in our waiting room. He reported that while he endorsed every item on the gambling screen he did not have a gambling problem in spite of the fact that his parents, relatives, friends and girlfriend thought he had a gambling problem.

Any type of psychological therapy for addiction is a very arduous process that demands significant effort and focus on the part of the client. For this reason, before beginning therapy, it is important to assess the client's readiness for change as well as motivation for change and work to foster motivation as needed (29). Client motivation can be encouraged by several techniques and practices which are incorporated into the motivational interviewing style of therapy (see Miller & Rollnick (33) and Hodgins & Diskin (34)). The general tenets of this approach include the belief that motivation to change must come from the client (i.e., can not be imposed by others), that while the therapist can be directive, it is ultimately the client's task to articulate and resolve ambivalence, and that the therapeutic relationship is a collaborative partnership. Further, Miller and Rollnick (33) contend that motivation is not a stable client trait, but rather may fluctuate throughout treatment. Some important therapeutic elements included in motivational interviewing with individuals experiencing gambling problems include: (a) providing personalized and specific feedback relevant to the individual's situation (reality check); (b) shifting responsibility for treatment to the client; (c) allowing clients to engage in a "decisional balance" exercise where they can weigh the hypothetical costs and benefits of continuing versus quitting gambling; (d) providing several options and objective advice; (e) and the encouragement of the client's self-efficacy. Of course, the provision of a safe place to share experiences and challenges as well as empathic listening are key components of the therapeutic alliance and should be given special attention when trying to foster client motivation. The use of these techniques with adult problem gamblers has been shown to have a positive impact (34, 35). It is likely that such techniques would also greatly benefit adolescent problem gamblers.

Allowing individuals to receive help with the primary notion of controlled gambling is essential while working toward an abstinence approach. For many of these individuals, gambling becomes the ultimate form of escape from problems, a way of coping with depressive symptomatology, an exhilarating activity which gives them much pleasure. Over time, they come to realize the short-term and long-term harms

associated with their excessive gambling. For many, stopping gambling is analogous to losing their best friend. Therapists have a tendency to focus solely on the negative aspects and consequences associated with gambling without addressing the positive aspects. Both perspectives need to be addressed.

2. Therapy

General therapeutic environment. A staff psychologist provides individual therapy at the Centre. It should be noted that on occasion, peers with similar gambling problems, family members and/or significant others are often requested to participate. Our past experience is that group therapy has been extremely difficult to coordinate due to multiple clients' differing timetables. Therapy is typically provided weekly, however if the therapist deems more frequent sessions are required, appropriate accommodations are made on a short-term basis. The overall number of sessions varies significantly based upon the level of motivation, degree and length of gambling severity, and severity of co-morbid disorders. Typically, treatment lasts between 20 and 50 sessions.

For adolescents experiencing gambling problems, total honesty during therapy is emphasized and a non-judgmental relationship is provided. This is fundamental in terms of creating an environment in which the adolescent does not fear reactions of disappointment or condemnation if weekly personal goals are not successfully achieved.

Mutual respect is a top priority and adolescents are held to a high standard of personal responsibility in this area. Treatment is provided at no cost, but clients are required to respect the therapist's time. This involves calling ahead to cancel and reschedule appointments, punctual attendance at sessions, and a commitment to complete assignments between sessions.

Goal setting. Overarching goals for therapy are set at the beginning of treatment and are revised several times during the therapeutic process. Smaller, objective and measurable weekly goals are also a crucial part of creating a space where clients can feel supported, motivated and can track progress through their healing process. It is important that goals be tailored to the client's priorities, gambling severity and comorbid disorders. For example, a client with comorbid personality or anxiety disorder is not approached in the same way as a client with gambling addiction without depressive symptomatology. In most cases, multiple therapeutic goals are addressed simultaneously over many sessions, while tailoring the time allocated to each goal to the needs of the client.

Environmental changes and triggers. Once triggers are identified as part of the functional assessment, it becomes possible to proactively address them during the therapeutic process. For example, one of the most common triggers for gamblers is the handling of large sums of money. In this case, adolescents would be helped to adopt strategies to minimizing carrying large sums of money and limiting their access to cash withdrawals from bank machines. In one case, a parent who was financially supporting his son made daily deposits into his account rather than weekly deposits. Other examples of triggers include gambling advertisements or landmarks, personal anxiety or depressed feelings, interpersonal difficulties, enticement of peers, stressful academic or work-related situations, and the need to acquire money quickly. Sometimes, merely having the awareness of one's triggers provides the individual with a better ability to deal with gambling urges. Individuals with a machine gambling addiction (e.g., slots, VLTs,

Pokies) are urged not to spend time in establishments housing these machines. While it is likely not possible to eliminate all triggers (e.g., pop-up messages, lottery tickets on checkout counters in convenience stores, etc.) it is possible to help individuals understand the importance of triggers in prompting them to gamble. Additional research is needed to better understand the relationship between triggers and mechanisms of self-control.

Understanding motivations for gambling. Adolescents experiencing serious gambling problems frequently continue gambling in the face of repeated losses and serious negative consequences as result of their need to dissociate and escape from daily stressors. Many youth with gambling problems report that when they are gambling they enter a “different world,” a world without problems and stresses. They report that while gambling, they feel invigorated and alive, they are admired and respected, that time passes quickly, and all their problems are forgotten - be they psychological, financial, social, familial, academic, work-related, or legal. As such, for a large number of youth experiencing gambling problems their gambling becomes the ultimate escape, albeit for a short period of time. From their perspective, a good day for these youth is when their gambling money lasts all day; a bad day is when there money runs out in an hour.

Adolescents are asked to write a short essay on why it is they feel the need to gamble - “What gambling does for me.” Gambling can be both positively and negatively reinforcing to players; providing intermittent pleasurable feelings or escape from negative situations or emotions. This is at least partly responsible for the fact that adolescents with gambling problems continue playing despite potentially serious negative longer-term consequences. A recent study by Gillespie, Derevensky and Gupta (36) revealed that most adolescent problem gamblers perceive both the risks, and benefits associated with gambling. What appears to differentiate problem gamblers from their non-problem gambling peers is that problem gamblers view the risks and negative consequences associated with excessive gambling to occur at a much later time and by then they believe they will have stopped gambling. Writing about what gambling provides for the adolescent is important for several reasons. First, it enables the therapist to have a better understanding of the individual’s perceptions of the reasons underlying why they are gambling excessively. Second, and more importantly, it enables the individual to articulate and understand the underlying reasons for gambling. The following are excerpts from several clients’ writings. The first highlights difficulties with interpersonal relationships and poor coping/adaptive skills, while the second illustrates an individual’s gambling to alleviate a depressed state and psychological escape.

“I always had trouble making friends, and never had a girlfriend. Gambling has now become my best friend and my one true love. I can turn to her in good times and bad and she’ll always be there for me.” (Male, age 18)

“Gambling, well, it’s strange to talk about the positive side because of how upside down it has turned my life, but I guess the pull of it is how it makes me feel so alive, so happy, and so much like I belong, but only when I am gambling. The low I feel after I realize what I did, and how much I have lost, is worse than anything I can explain.

I guess I just need to feel good from time to time, it lets me escape the black hole that is my life.” (Male, age 17)

Analysis of gambling episodes. Gaining awareness and achieving acceptance of gambling triggers, psychological, emotional and behavioral reactions to those triggers as well as the consequences that follow from this sequence is important. This type of understanding and critical analysis can have an empowering impact upon adolescents and can encourage them to make long-term changes in their behaviors. It is essential that the individual does not attribute the repeated losses to either an external event (e.g., bad luck, or as one client noted “my parents are on my back all the time and I was unable to concentrate and review all the statistics needed to pick the winning team”). Problem gamblers are in some ways like alcoholics. Many alcoholics have a favorite drink but if one removes their favorite drink they will switch to another. One youth who was an excessive gambler at the casino playing blackjack had told us that individuals who played the electronic gambling machines were “stupid” as there was no skill involved. After we managed to keep him out of the casino he became a machine gambler until eventually he stopped gambling.

The importance of identifying and dealing with triggers has already been discussed in this chapter. However, it is also important to understand the times in a client’s day when he/she does not seem to have the urge to gamble. Identifying the circumstances, time of day, their emotional state, activity levels, physical proximity to gambling venues, etc. is essential. By understanding the circumstances under which the urge to gamble is less or absent, helps provides a set of guidelines by which the therapist can help recreate similar situations at other times in the day. For example, we have noted that many of the young gamblers undergoing treatment often report that when actively engaged in playing sports with friends, bicycling, physical activity (e.g., gym, bicycling, skiing) they feel better and had their minds clear of their gambling desires both during and after the activity. As a result, for these youth, when helping them to structure and organize their week, attempts are made to include similar types of activities on a daily basis.

Establishing a baseline of gambling behavior and encouraging a decrease in gambling. Once the motivations for gambling are understood and an analysis of gambling patterns has been made, efforts are focused on making changes to the adolescent’s gambling behavior. In order to set goals and measure improvements, we find it useful and important to initially establish a baseline of gambling behavior. Adolescents are required to record their gambling behaviors in terms of frequency, duration, time of day, type of gambling activity, amount of money spent, losses and wins. When establishing goals for a decrease in gambling participation, adolescents are guided to establish reasonable goals for themselves. Some elect to target multiple indices such as frequency, duration and amount spent simultaneously, while others may focus on one aspect of gambling (e.g., frequency or duration). For these individuals, we encourage a decrease in frequency or duration of each gambling episode versus initially focusing on amount wagered. Some meet their goals immediately at which point we generally support decisions to maintain this decrease for a short period before establishing new goals immediately. Others struggle to meet their goals at which point goals can be modified and amended.

Cognitive therapy and cognitive distortions. It has been well established that individuals with gambling problems experience multiple cognitive distortions (37, 38). They are prone to have an illusion of control, perceive that they can control the outcome of random events, underestimate the amount of money lost and over-estimate the amount won, fail to utilize their knowledge of the laws of independence of events, and believe that if they persist at gambling they will likely win regain all money lost. Addressing these cognitive distortions remains an important treatment goal. In particular, male adolescents externalize their losses (e.g., bad luck, bad dealer) whereas females internalize their behavior (e.g., "I should have known the odds, I made a poor decision"). Furthermore, an analysis of their gambling behavior typically reveals the rationalizations they make to justify their gambling behavior. These rationalizations need to be directly addressed, as they too represent distortions of reality. One such example is, "By gambling now, the urge will be out of my system and I'll be more able to focus on studying for my exam." The overarching goal is to ensure that the individual comprehends that the gambling episode will likely result in a bad mood if they were to lose money, and an inability to focus on studying for an exam. Ultimately, the goal of addressing many of the cognitive distortions is to highlight how one's thinking can be self-deceptive, to provide examples and pertinent information about randomness, to encourage a realization that gamblers are incapable of controlling outcomes of random events and games, payout rates, etc.

In addition to examining constructs such as the illusion of control, laws of independence of events, and randomness, we have tried to incorporate specific examples for both sports gamblers and poker players. For sports gamblers, we discuss the results of several large studies conducted by the National Collegiate Athletic Association in the United States (approximately 20,000 college athletes in each study) (39, 40). The results of these studies suggest that there is a small but identifiable number of college athletes try to manipulate the outcome of games as a result of their personal gambling. We challenge adolescents' perceptions of selecting winning teams, in spite of their extensive knowledge about the sport, if the outcome of the game may be altered by a player.

The identification of specific cognitive distortions particular to each client forms a critical component of therapy. Erroneous cognitions are addressed throughout the therapeutic process. There is evidence that such erroneous cognitions and beliefs can be altered and modified (41).

Establishing the underlying causes of stress, anxiety, depression and other mental health disorders. In light of empirical research (13, 42-44) and clinical findings it becomes essential to identify and address any underlying problems that result in increased stress, anxiety and depression. For some, the financial losses and delinquent behaviors associated with their excessive gambling result in increased anxiety, stress, and/or depression. Yet for others these mental health issues are the reason for gambling. As most winnings and losses are intermittent, individuals experience both benefits and consequences associated with their playing behavior. Our clients have presented with a wide diversity of mental health issues; poor self-image, depression, anxiety disorders, attention deficit disorders, conduct disorders, oppositional defiant disorders, suicide ideation, and social and interpersonal issues. As well, it is not uncommon for them to be experiencing academic, work-related and/or legal issues. Psychopharmacological treatment in

conjunction with traditional forms of therapy is provided in collaboration with consulting psychiatrists when necessary.

Evaluating and improving coping abilities. Once underlying anxieties or affective states that contribute to the adolescents desire to gamble have been identified, another therapeutic goal is to assist the adolescent in the acquisition of new positive and prosocial coping strategies. Recent research has pointed to the importance of resilience as a protective factor in helping individuals refrain from excessive gambling (45). Problematic and excessive gambling as a need to escape one's problems usually occurs more frequently among individuals who have poor coping and adaptive skills (46). Using gambling or other addictive activities to deal with daily stressors, anxiety or depression represents a form of maladaptive coping. Recent research efforts have confirmed these clinical observations, where adolescents who meet the criteria for pathological gambling demonstrated poor coping skills and depression compared to same age peers without a gambling problem (47, 48).

Given this information, building and expanding the individual's repertoire of coping abilities remains important in enabling adolescents to be resilient in light of adversity. As adolescents begin to acquire more sophisticated adaptive strategies and their repertoire of coping responses expands, they are more apt to apply these skills in their daily lives. Examples of healthy coping skills include effective communication with others, enhanced social support seeking behavior, and the ability to differentially respond to situations based upon risks and benefits. Also included in the discussions and role-playing exercises are ways to improve social skills (e.g., learning to communicate with peers, developing healthy friendships, being considerate of others, and developing trust).

Rebuilding healthy interpersonal relationships. A common consequence of a serious gambling problem involves impaired and damaged relationships with friends, peers and family members. Helping adolescents rebuilding these crucial relationships constitutes an important therapeutic goal. Often through lies, manipulative and antisocial behaviors stemming from their gambling problem, friends and family members become alienated, leaving unresolved negative feelings and disrupted relationships. Once a youth has been identified as being a liar or thief, it becomes difficult to regain the trust of others and to resume healthy relationships. This becomes one of the more difficult situations faced by the problem gambler. They have typically lied numerous times about having quit gambling, however once they actually stop their gambling they want to be trusted almost immediately. While on a cognitive level they understand the lack of trust by significant others, they have great difficulty being repeatedly questioned as to their daily activities. We often remind youth that it took quite some time to destroy the trust and will likely take even longer to rebuild it. One parent asked his son to bring receipts for all expenses to help account for his money. This proved both embarrassing and difficult to ask friends for receipts when purchasing a coffee for him. This type of situation requires some intervention on behalf of the therapist. One needs to explain to family members and friends that these deceptive actions are part of the constellation of problematic behaviors exhibited by individuals who cannot control their gambling. Consequently, once the gambling is under control, family members and friends can anticipate being treated with honesty and respect.

Family members, peers, and significant others become important support personnel to help ensure abstinence and can take an active role in relapse prevention. Youth with gambling problems are likely to be happier and more apt to abstain from gambling if they feel they belong to a peer group and are supported by family and friends. As a result, the periodic inclusion of family members and friends in therapy sessions has proven to be very beneficial. Nevertheless, the process of rebuilding relationships can be long, arduous and is often met with only partial success. While highly dependent upon circumstances, some friends or family members may not be willing to forgive the problem gambler or re-establish contact.

Restructuring free time. Adolescents struggling to overcome a gambling problem experience more positive outcomes when not faced with large amounts of unstructured time. Some adolescents in treatment are still in school and/or have a job, and as such their free time consists mainly of evenings and weekends. Others have dropped-out of school and may have a part-time job, while others are not working. For these youth, structuring their time becomes paramount as they initially find it exceedingly difficult to resist urges to gamble when they are bored. We frequently ask adolescents to carry a notepad to keep track of their daily schedule. Spending time with friends, family, school or work related activities are beneficial. Other suggested activities involve participating in organized sports activities, engaging in a hobby, watching movies, and performing volunteer work. The success of their week is evaluated on how well they achieve the weekly goals agreed upon, with their gambling-related goals (reduction or abstinence) being one part of the program. Thus, if an individual fails to meet their goals surrounding their gambling behavior, they still may achieve success in other areas. This approach tends to keep the clients from being discouraged, motivates them to attain a balanced lifestyle and to continue treatment.

Fostering effective money management skills. These skills are typically lacking in adolescents who have a gambling problem. Therapeutic goals involve educating them as to the value of money (as they tend to lose perspective after gambling large sums), building money management skills, and helping them develop and maintain a reasonable debt repayment plan. Interestingly, problem gamblers often view purchases in line with their gambling behaviors. When asked how one teenager travelled to the casino, he replied "half a hand." He went on further to explain that he typically waged \$25 per hand on blackjack and taxi fare to the casino was only \$13. Having youth carry less money, in small denominations (large bills enhances their stature and self image as the "big shot") is also important.

3. Preparation for cessation of treatment and relapse prevention

As previously noted, our clinical work suggests that abstinence from gambling is the optimal goal. Abstinence among our clinical sample has improved the likelihood of relapse of gambling problems. It should be noted that small, occasional relapses (we tend to refer to them as "slips" with our clients) throughout the treatment process are to be expected. However, once gambling has ceased for an extended period of time (i.e., 6 months), an effective relapse prevention program should help these individuals remain free of gambling.

Given that gambling treatment usually goes on over an extended period of time, it is important to phase therapy out gradually. This allows the adolescent to get accustomed to having longer stretches without

therapeutic support during which he/she must take control of maintenance of therapeutic gains autonomously. Difficulties encountered during this phasing-out process provide useful information and can be dealt with while the adolescent is still actively engaged in therapy.

Relapse prevention post termination includes continued access to their primary therapist for “booster” sessions, the existence of a good social support network, engagement in either school or work, the practice of a healthy lifestyle, and avoidance of powerful triggers. Youth are contacted periodically via telephone, text messages or e-mail for one year post treatment to ensure they are maintaining their abstinence and doing well in general. Additional support is offered when required.

Enhancing a social responsibility perspective

A major part of the Centre's mission is to promote a social responsibility perspective to policy-makers, parents and youth. For most adolescents as well as adults gambling is generally done in moderation without enduring serious social, economic, and personal costs. Yet, the fact that many youth, parents and educators remain unaware of the negative consequences associated with adolescent gambling is problematic. Gambling has become glamorized and normalized in our society. We take the widespread popularity of poker playing among adolescents as one prime example.

As previously noted, there are a growing number of adolescents and young adults whose gambling problems are related to their poker playing. This increase is likely due to widespread advertising, Internet gambling opportunities, televised tournaments, celebrity endorsements, its normalization and the changing face of tournament winners. No longer is the winner the elderly gentleman from Texas wearing the large “10 gallon” hat but rather the young person, with a pierced ear, baseball cap turned backwards, with the wrap around sunglasses. These new champions of the World Series of Poker allow the adolescent to more closely identify with the tournament winners. As a result, we often share an excerpt of an e-mail sent to us from a professional poker player in response to an editorial that appeared in multiple newspapers warning youth not to think of themselves as the next winner:

I am a very, solid player and have finished 97th place out of over 3000 players at a WSOP [World Series of Poker] event and do well especially at limit poker. I've ranked at one point in the top 300 of over one million online players. But I have been taught by people that are exceptional players prior to playing money games and have read many books to the point where I know my hands odds at any point during the betting process as if it were like breathing and most importantly what my opponent will do most of the time prior to betting.

Without the top calibre tutelage and in-depth study of the game prior to playing, I would have lost a lot of money. But I and especially a select few like Jonathan Duhamel [the 2010 winner of the World Series of Poker] and minute others are probably the exception as we learn that bank roll management skills amongst other rules is above and beyond the most important rule....which most players lack. I never ever play house casino games such as blackjack, roulette etc.

But even after all this accumulated skill and knowledge it is still VERY, VERY difficult to make an income at it and I can't even imagine how someone starting out could do it without going bankrupt first.

After reading the article, I would have to conclude your findings, theories and hypothesis as being absolutely correct. Over 99.5% of the players do not have the discipline, focus, patience and skill to become "professional". I see this over and over again at the table, how emotion not logic causes many to lose their money by the end of the night. I know who will win and who will lose it within 20 minutes and I also know they will not walk away until they lose it all. Very sad really as it happens to many players especially within certain ethnic groups. I would not over exaggerate by saying that gambling is a "disease".

It is probably the only "sport" where someone honestly thinks that overnight after winning a small tournament they consider themselves a "professional poker player", just because I score a goal against a great goalie doesn't mean I can play in the National Hockey League.

I know of top online poker world professionals that have won over \$500,000 in online tournaments in one year and lose \$130,000 in 2 months playing almost all the events and some cash games during the WSOP. It is not for the faint of heart.

There has also been an online discussion on how many online poker sites have their tournament games "random number generators" programmed for a high rate of set up hands (AA vs KK or KK vs QQ etc) to finish a tournament quickly so that the poker site saves money on Internet bandwidth costs. For example, a popular poker site refuses to have their random number generator reviewed by a third party for fairness.

There are other things to consider such as online team collusion, bots and advanced poker software and of course those many notorious online bad beats that creates this fuel of rage, and now someone will spend whatever it takes to win the money back only to lose it all. It is like a old record player that gets stuck on repeat, it will not change without outside help. People are creatures of habits and in poker and other gambling its bad habits.

My strongest advice is that if people have [italics added] to play I think it should be mandatory at the very minimum especially online to set a low maximum deposit limit for the week or month..... The game can be fun if you set a reasonable timeframe and budget....

Concluding comments

This treatment program's efficacy has not been empirically validated using the standards necessary for a rigorous, scientifically controlled study (i.e., no random assignments to a control group matching for severity of

gambling problems and other mental health disorders, controlling for age, gender, SES, frequency and type of gambling activity preferred, etc.). As such, more clinical research is necessary before definitive conclusions can be drawn. Nevertheless, based upon clinical criteria established for success (i.e., abstinence for six months post treatment, return to school or work, no longer meeting the DSM criteria for pathological gambling, improved peer and family relationships, improved coping skills, and no marked signs of depressive symptomatology, delinquent behavior or excessive use of alcohol or drugs), the McGill University treatment program appears to have reached its objectives in successfully working with youth suffering from serious gambling problems.

The description of our treatment philosophy and approach discussed in this chapter elaborated upon to provide clinicians and treatment providers with a better understanding of the different components deemed necessary when working with young problem gamblers. Treating youth with severe gambling problems requires clinical skills, a knowledge of adolescent development, an understanding of the risk factors associated with problem gambling, and a thorough grounding in the empirical work concerning the correlates and risk factors associated with gambling problems. By no means should this chapter substitute for proper training.

While we did not elaborate upon how to treat youth with multiple addictions in this chapter, it is clear that gamblers with concomitant substance abuse problems pose a greater challenge for treatment (49). Youth with clinical levels of depression, high levels of impulsivity, and anxiety disorders are often referred to psychiatry to simultaneously undergo pharmacological treatment while undergoing our therapy. The use of serotonin re-uptake inhibitors can be effective in helping these youth manage their depression and anxiety, and preliminary research suggests that they may be useful in lowering levels of impulsivity which often underlies pathological gambling behavior (Grant & Potenza, in this volume (50) and Grant, Kim and Potenza (51).

While the incidence of severe gambling problems amongst youth remains relatively small, the devastating short-term and long-term consequences to the individual, their families, and friends are significant. One adolescent, when discussing the severity of his gambling problem responded, "It's an all-encompassing problem that invades every facet of my life. I wouldn't wish this problem on my worst enemy, for it's way too harsh a punishment."

The vast majority of the youth seen in our clinic have a wide array of problems. Merely treating the gambling problem without examining the individual's overall mental health functioning will likely result in less than optimal results. The following is a text written by a young pathological gambler from our treatment program, one year post-treatment:

Gambling is an extremely addictive activity which can get unbelievably out of control. It can lead to a very horrible reality, one in which just getting out of bed can seem unthinkable. Unfortunately, I have lived this reality. I was eighteen when I began to fight for my life back. My future did not look very good. I was severely depressed, anxious and overweight, I wanted to disappear. Thankfully, with the support of an amazing team I have managed to overcome my addiction, lose thirty pounds and continue my schooling. I feel like I am relearning how to live. This continues to

be a very long and emotionally painful process, however it does get easier with time. My memories of the gambling, the lies and unhappiness are slowly fading away... becoming part of the past. However I will never forget my struggle or how easy it was to lose control. In my gambling years I have seen and experienced first hand an incredible amount of heartache. I hope to never witness such avoidable pain again. Now at twenty years old, I am beginning a journey which holds an endless amount of opportunity. My dream to be a health-care professional seems closer than ever. Please let my story be a source of hope for anyone in a similar situation. I understand how bad life can seem, I've been there, believe me. You are not alone. Get the help you need, be true to yourself and start your own journey.

While it appears as though some adolescents who gamble problematically appear to resolve their gambling problems without traditional therapeutic intervention or support groups, providing support for those in need remains essential. Our governments, private corporations, and charitable organizations, recipients of the revenues generated from gambling, need to help address this issue by providing appropriate funding for the establishments of treatment centers and training of professionals. Problem gambling, for adults and adolescents, can have devastating short- and long-term consequences.

In spite of gains in knowledge concerning the correlates and risk factors associated with severe gambling problems amongst youth during the past fifteen years, a general lack of public and parental awareness exists (52). The fact that the prevalence rates for youth with severe gambling problems remain higher than that of adults is of significant concern. Whether maturation will result in individuals stopping their excessive gambling behavior by the time they become adults with additional responsibilities still remains an unanswered question. As we have argued elsewhere, independent of whether or not individuals with severe gambling during adolescence become more responsible 'social gamblers' as adults, the personal costs and consequences incurred along the way often are severe and remain with them.

Gambling problems among youth will continue to raise important public health and social policy issues in the 21st century. Greater emphasis on outreach, awareness and prevention programs remains essential. The search for Best Practices in the treatment of adolescent gambling problems is only beginning. Our governments must help fund more basic and applied research and be responsible for supporting and developing effective and scientifically validated prevention and treatment programs. The treatment of young problem gamblers is a complex, multidimensional process. While such an approach can take months or longer, the long-term benefits to the individual and society outweigh the immediate costs of funding such programs.

REFERENCES

1. Gupta R, Derevensky J. A treatment approach for adolescents with gambling problems. In: Zangeneh M, Blaszczynski A, Turner N, eds. In the pursuit of winning. New York: Springer, 2008.
2. Petry N. Pathological gambling: etiology, comorbidity, and treatment. Washington: American Psychological Association, 2004.

3. National Research Council. Pathological gambling: A critical review. Washington, DC: National Academy Press, 1999.
4. McCown W, Howatt W. Treating gambling problems. New Jersey: John Wiley, 2007.
5. Shaffer HJ, LaPlante D. Treatment of gambling disorders. In: Marlatt G, Donovan D, editors. Relapse prevention: Maintenance strategies in the treatment of addictive behaviors. New York: Guilford, 2008.
6. Walker M, Schellink T, Anjoul F. Explaining why people gamble. In: Zangeneh M, Blaszczynski A, Turner N, editors. In the pursuit of winning. New York: Springer, 2008.
7. Ladouceur R, Boisvert J, Dumont JM. Cognitive-behavioral treatment for adolescent pathological gambling. *Behav Modif* 1994;18:230-42.
8. Blaszczynski AP, Silove D. Cognitive and behavioural therapies for pathological gambling. *J Gambl Stud* 1995;11(2):195-220.
9. National Gambling Impact Study Commission. Chicago, IL: National Opinion Research Center, 1999.
10. Nathan P. Best practices for the treatment of gambling disorders: Too soon? Paper presented at the annual Harvard-National Center for Responsible Gambling Conference Las Vegas. 2001.
11. Toneatto T, Ladouceur R. Treatment of pathological gambling: A critical review of the literature. *Psychol Addict Behav* 2003;17(4):284-92.
12. Zangeneh M, Blaszczynsky A, Turner N, editors. In the pursuit of winning: Problem gambling theory, research, and treatment. New York: Springer, 2008.
13. Derevensky J. Gambling behaviors and adolescent substance use disorders. In: Kaminer Y, Buckstein OG, eds. Adolescent substance abuse: Psychiatric comorbidity and high risk behaviors. New York: Haworth, 2008:403-33.
14. Gupta R, Derevensky J. Defining and assessing binge gambling. In: Derevensky J, Shek D, Merrick J, editors. Youth gambling problems: The hidden addiction. Berlin: De Gruyter, In press.
15. Shead NW, Derevensky J, Gupta R. Youth problem gambling: our current knowledge of risk and protective factors. In: Derevensky J, Shek D, Merrick J, editors. Youth gambling problems: The hidden addiction. Berlin: De Gruyter, In press.
16. Hodgins D, Wynne H, Makarchuk K. Pathways to recovery from gambling problems: Follow-up from a general population survey. *J Gambl Stud* 1999;15(2):93-104.
17. Wisdom J, Cavaleri M, Gogel L, Nacht M. Barriers and facilitators to adolescent drug treatment: Youth, family and staff reports. *Addict Res Theory* 2011;19:179-89.
18. Sklar A, Derevensky J, . Way to play: Analyzing gambling ads for their appeal to underage youth. *Can J Commun* 2010;35(4):533-54.
19. Derevensky J, Sklar A, Gupta R, Messerlian C. An empirical study examining the impact of gambling advertisements on adolescent gambling attitudes and behaviors. *IJMA* 2010;8:21-34.
20. McBride J, Derevensky J. Internet gambling behaviour in a sample of online gamblers. *IJMA* 2009;7:149-67.
21. Griffiths M, Parke J, Derevensky J. Remote gambling in adolescence. In: Derevensky J, Shek D, Merrick J, editors. Youth

- gambling problems: The hidden addiction. Berlin: De Gruyter; In press.
22. Blaszczynski AP, McConaghy N, Frankova A. Control versus abstinence in the treatment of pathological gambling: A two to nine year follow-up. *Br J Addict* 1991;86:299-306.
 23. Dowling N, Smith D, Thomas T. A comparison of individual and group cognitive-behavioral treatment for female pathological gambling. *Behav Res Ther* 2007;45(9):2192-202.
 24. Ladouceur R, Lachance S, Fournier P-M. Is control a viable goal in the treatment of pathological gambling? *Behav Res Ther* 2009;47(3):189-97.
 25. Ladouceur R. Controlled gambling for pathological gamblers. *J Gambl Stud* 2005;21:51-9.
 26. Slutske WS, Piasecki T, Blaszczynski A, Martin NG. Pathological gambling recovery in the absence of abstinence. *Addiction* 2010;105:2169-75.
 27. Derevensky J, Gupta R, Winters K. Prevalence rates of youth gambling problems: Are the current rates inflated? *J Gambl Stud* 2003;19(4):405-25.
 28. Derevensky J, Gupta R. Adolescents with gambling problems: A review of our current knowledge. *e-Gambling* 2004;10:119-40.
 29. DiClemente CC, Story M, Murray K. On a roll: The process of initiation and cessation of problem gambling among adolescents. *J Gambl Stud* 2000;16:289-313.
 30. DiClemente CC, Prochaska JO. Self-change and therapy change of smoking behavior: A comparison of processes of change in cessation and maintenance. *Addict Behav* 1982;7(2):133-42.
 31. Wynne H, Smith G, Jacobs DF. Adolescent gambling and problem gambling in Alberta. Prepared for the Alberta Alcohol and Drug Abuse Commission, Edmonton. 1996.
 32. Chevalier S, Geoffrion C, Audet C, Papineau É, Kimpton M-A. Évaluation du programme expérimental sur le jeu pathologique. Rapport 8-Le point de vue des usagers. Montreal: Institut nationale de sante publique du Québec, 2003.
 33. Miller W, Rollnick S. *Motivational interviewing: Preparing people to change addictive behavior*. New York: Guilford, 1991.
 34. Hodgins D, Diskin K. Motivational interviewing in the treatment of problem and pathological gambling. In: Arkowitz H, Westra W, Rollnick S, editors. *Motivational interviewing in the treatment of psychological problems*. New York: Guilford, 2008.
 35. Arkowitz H, Westra H, Miller W, Rollnick S, editors. *Motivational interviewing in the treatment of psychological problems*. New York: Guilford, 2008.
 36. Gillespie M, Derevensky J, Gupta R. The utility of outcome expectancies in the prediction of adolescent gambling behaviour. *JGI* 2007;19:69-85.
 37. Ladouceur R, Walker M. Cognitive approach to understanding and treating pathological gambling. In: Bellack AS, Hersen M, eds. *Comprehensive clinical psychology*. New York: Pergamon, 1998.
 38. Langer EJ. The illusion of control. *J Pers Soc Psychol* 1975;32(2):311-28.

39. Huang J-H, Jacobs DF, Derevensky J, Gupta R, Paskus T, Petr T. Pathological gambling amongst college athletes. *J Am Coll Health* 2007;56(2):93-9.
40. Shead NW, Derevensky J, Paskus T. Trends in gambling behavior among college student-athletes: A comparison of 2004 and 2008 NCAA survey data. Unpublished manuscript.
41. Derevensky J, Gupta R, Baboushkin H. Underlying cognitions in children's gambling behaviour : Can they be modified? *IGS* 2007;7(3):281-98.
42. Dickson L, Derevensky J, Gupta R. Youth gambling problems: An examination of risk and protective factors. *IGS* 2008;8(1):25-47.
43. Shead NW, Derevensky J, Gupta R. Risk and protective factors associated with gambling. *Int J Adolesc Med Health* 2010;22:39-58.
44. Ste-Marie C, Gupta R, Derevensky J. Anxiety and social stress related to adolescent gambling behavior and substance use. *J Child Adolesc Subst Abuse* 2006;16(4):55-74.
45. Lussier I, Derevensky J, Gupta R, Bergevin T, Ellenbogen S. Youth gambling behaviors: An examination of the role of resilience. *Psychol Addict Behav* 2007;21:165-73.
46. Gupta R, Derevensky J. Adolescent gambling behavior: A prevalence study and examination of the correlates associated with problem gambling. *J Gambl Stud* 1998;14:319-45.
47. Gupta R, Derevensky J, Marget N. Coping strategies employed by adolescents with gambling problems. *Child Adolesc Ment Health* 2004;9(3):115-20.
48. Nower L, Gupta R, Blaszczyński AP, Derevensky J. Suicidality and depression among youth gamblers: A preliminary examination of three studies. *IGS* 2004;4(1):70-80.
49. Ladd G, Petry N. A comparison of pathological gamblers with and without substance abuse treatment histories. *Exp Clin Psychopharmacol* 2003;11:202-9.
50. Grant J, Potenza M. Adolescent problem gambling: Pharmacological treatment options. In: Derevensky J, Shek D, Merrick J, editors. *Youth gambling problems: The hidden addiction*. Berlin: De Gruyter; in press.
51. Grant JE, Kim SW, Potenza MN. Advances in the pharmacological treatment of pathological gambling. *J Gambl Stud* 2003;19:85-109.
52. Campbell C, Derevensky J, Meerkamper E, Cutajar J. Parents' perceptions of adolescent gambling: A Canadian national study. *JGI*, in press.