

Young Adults with Gambling Problems: The Impact of Childhood Maltreatment

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Abstract Childhood maltreatment has been thought to be a significant risk factor in the development of gambling problems. Incorporating a developmental psychopathology perspective, 1,324 adolescents and young adults, age 17–22 years completed self-report measures on gambling behaviors, gambling severity, and childhood maltreatment. Problem gamblers reported high levels of childhood maltreatment as compared with non gamblers and social gamblers. The results highlight the inter-relationship between multiple types of childhood abuse and gambling severity and are consistent with Jacobs' *General Theory of Addictions* and Blaszczynski and Nower's *Pathways Model*. The importance of routine assessments for childhood trauma, in addition to other psychological disorders and co-morbid addictive behaviors in individuals presenting with a gambling disorder may well facilitate more effective treatment strategies.

Keywords Maltreatment · Adolescence · Problem gambling

Over the past decade, gambling venues have dramatically increased in popularity. Gambling, or gaming, has become a socially acceptable pastime for both adults and youth (Azimer 2000; Gupta and Derevensky 2008a). Among young adults, the rates of problem gambling appear to be considerably higher, with gambling problems likely emerging during late adolescence and early adulthood (Derevensky 2008). While considerable knowledge has been gained over the past decade concerning the correlates associated with individuals experiencing gambling problems, the etiology of pathological gambling is still not clearly understood. Several predisposing variables that may place individuals at heightened risk for the development of a serious gambling problem have been previously identified (see Abbott et al. 2004; Derevensky 2008; Gupta and Derevensky 2008a for reviews), however, our present knowledge still remains incomplete.

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Etiology of Pathological Gambling

Blaszczynski and Nower (2002) articulated a conceptual model, delineating three discrete pathways leading to the development of distinct subgroups of pathological gamblers. The three pathways, *behaviorally conditioned problem gambler*, *emotionally vulnerable problem gambler*, and the *antisocial impulsivist problem gambler*, demarcate gambling as a heterogeneous addiction with complex genetic, biological, psychosocial, and environmental factors. Accordingly, Blaszczynski and Nower suggested that emotionally vulnerable gamblers present with anxiety and/or depression, have a history of poor coping and problem solving skills, and have experienced significant negative life events. The motivation to gamble for these emotionally vulnerable individuals is likely driven by a desire to modulate affective states in an attempt to meet pressing psychological needs.

Despite an underlying vulnerability, the majority of young adults report gambling for excitement, entertainment, to make money and/or as a means to relieve boredom (Felsher et al. 2004). Whatever the rationale for gambling, a *need state* model (Walker 1992) asserts that excessive gambling is a behaviour that is carried out to fulfill some personal need. One such need may well be to regulate one's affective state. For example, it has been suggested that depression precedes excessive gambling behaviour wherein gambling is used to cope with a long-term depressive condition (Custer and Milt 1985; Walker 1992). This fits with Jacobs' (1986) contention that gambling involvement offers a means to escape unpleasant negative affect. An empirical study using a community sample of youth by Gupta and Derevensky (1998) and Kaufman (2002) found that at-risk and pathological gamblers reported significantly more depressive symptomology than non-gamblers and social gamblers, with probable pathological gamblers reporting negative emotional affective states.

A Theoretical Model for Gambling Addiction

Jacobs' (1986) *General Theory of Addictions* provides a framework for the biological and psychosocial basis in the development and maintenance of a gambling addiction and offers a plausible explanation for the development and maintenance of addictive patterns of behaviour. Attempts to empirically evaluate this theory within the addiction literature have been generally limited primarily to the inference of arousal states. Bergevin et al. (2006) sought to move beyond physiological vulnerability and examined emotional vulnerability via life stressors. While the important role stress played as a predisposing emotional vulnerability for the development of an addiction, Jacobs' hypothesis concerning the importance of childhood maltreatment has yet to be empirically examined. The link between gambling problems and early childhood adverse events may be important when looking for an etiological explanation for problem gambling.

Maltreatment as a Risk Factor in the Development of an Addiction

The most common forms of maltreatment include physical abuse, sexual abuse, emotional abuse, emotional neglect, and physical neglect. The negative early childhood experiences are often thought to have a significant impact upon later

behavior and adaptive psychological functioning. However, the impact is likely dependant upon the degree or severity and type of maltreatment, external stressors, perpetrator, and the developmental level of the child at the time of maltreatment (Briere 1992). Evidence suggests that different types of maltreatment are often associated with different sequelae. Nevertheless, most studies of maltreated children fail to adequately differentiate among the different types of maltreatment (Briere and Runtz 1988; Higgins and McCabe 2000).

While the study of psychological maltreatment and neglect is often forgotten, it remains at the core of negative childhood developmental outcomes (Hart et al. 1998; Kairys and Johnson 2002). An empirical study of community and referred children found that physical maltreatment rarely occurred in the absence of psychological maltreatment; whereas psychological maltreatment occurred without the presence of physical abuse (90% of children who experienced physical abuse also experienced psychological maltreatment, with only 45% of children experiencing psychological maltreatment reporting physical abuse) (Claussen and Crittenden 1991). There is further evidence suggesting that psychological maltreatment may be more harmful to certain aspects of emotional development than physical abuse (Gauthier et al. 1996; Kairys and Johnson 2002). Similarly, it has been argued that neglect may be particularly harmful due to the lack of bonding and interaction between the child and the caregiver. Moreover, neglect is likely to have a different psychological meaning for a child than physical abuse since neglect could be equivalent to complete psychological abandonment, whereas physical abuse may not be (Gauthier et al. 1996).

Maltreatment and Pathological Gambling

Jacobs (1986) has long suggested that a family history of problem gambling may be one risk factor in the development of gambling problems. This may result in poor parenting behaviors and/or psychological disorders. Consistent with Jacobs' theory, a childhood experience of negative feelings and rejection may cause the individual to seek aversive stimulation. Thus, excessive gambling likely results in an emotional escape from feelings of inadequacy and negative mood via the effects of dissociation. Grant and Kim (2002) found that 43% of adult pathological gamblers reported neglectful paternal parenting and 39% reported neglectful maternal parenting. They concluded that for these individuals gambling acted as a vehicle to escape negative emotional states, particularly feelings of worthlessness and inadequacy resulting from poor parental support. Using adolescents, Hardoon et al. (2004) hypothesized that a lack of perceived social support from parents might act as a risk factor for gambling related problems among adolescents. Strong support for this hypothesis was found, with 50% of pathological gamblers and 30% of at-risk gamblers reporting they perceived their families as unsupportive. Similar to maltreated children, problem gamblers reported feeling unsupported and rejected by their families. Jacobs (2002), in a preliminary investigation, reported that 80% of adult pathological gamblers indicated having been subject to one or multiple types of abuse or neglect.

In light of previous research, establishing a link between gambling activity and traumatic childhood events seems useful in establishing possible etiological explanations of problem gambling. The aim of the current research study was to empirically examine the relationship between childhood maltreatment and problem gambling amongst young adults.

Method

Participants

Participants included 1,324 young adults attending a CEGEP¹, with an approximately equal number of males (42.8%) and females (57.2%). The mean age of the sample was 18.66 ($SD=1.51$) and ranged from 17 to 22. All students voluntarily agreed to participate in this research.

Instruments

DSM-IV Criteria for Pathological Gambling (Stinchfield & Winters 1998). The DSM-IV (APA 2000) assesses a number of important variables related to pathological gambling including: progression and preoccupation, tolerance, withdrawal and loss of control, escape, chasing, lies and deception, illegal activities, and familial/work disruption. Items were worded in behavioral terms with the time frame for this measure being past year gambling behavior. The DSM-IV criteria were scored by summing endorsed items across the 10 criteria with a score of 5 or more indicative of pathological gambling. This measure is reported to be a reliable and valid measure of pathological gambling, both in the general population and with treatment samples (Stinchfield 2003). Internal consistency was reported as $\alpha=0.81$ for the general population, $\alpha=0.77$ for a gambling treatment sample, and an $\alpha=0.98$ for the combined group. Evidence for convergent validity between the DSM-IV and the South Oaks Gambling Screen (SOGS) was $r=0.77$ and $r=0.75$ for the general population and gambling treatment groups, respectively.

Gambling Activities Questionnaire (GAQ) (Gupta and Derevensky 1996). The GAQ measures the types and frequency (*never, less than once a month, once a week or more*) of multiple forms of gambling during the past 12 months. Each item was discrete, analyzed individually, and no cumulative scores were calculated.

Maltreatment The Childhood Trauma Questionnaire (CTQ) (Bernstein and Fink 1998) is a 28-item self-report inventory, requiring 5–10 minutes to screen for maltreatment experiences before the age of 18 years. Items are rated on a 5-point Likert scale, with responses ranging from *never true* to *very often true*. Most items were phrased in behavioural, non-evaluative terms to avoid negatively charged labels (e.g., *When I was growing up, someone tried to touch me in a sexual way or tried to make me touch them*), while other items required a more subjective judgment (e.g., *When I was growing up I believe that I was sexually abused*). Instructions asked respondents about their “experiences growing up” and did not distinguish between current and past maltreatment. The CTQ consists of five scales; *emotional abuse* (verbal assaults on a child’s sense of worth or well-being, humiliating, demeaning, or threatening behaviors by an older person), *physical abuse* (bodily assaults by an older person that pose risk or result in injury), *sexual abuse* (sexual contact or conduct between a child and an older person), *emotional neglect* (failure of caretakers to provide basic psychological and emotional needs including love, nurturing, encouragement, belonging, and support), and *physical neglect* (failure of caregivers to provide for a child’s basic physical needs including food, shelter, safety, supervision, and health). In addition to the five scales, a Minimization/Denial scale consisting of three items

¹ CEGEP is a particular feature of Québec’s education system. It constitutes an intermediary level between compulsory secondary education and university education. CEGEP education offers two year pre-university programs and three-year technical programs leading to a Diploma of College Studies (DCS). A DCS is required by Quebec residents for admission to university.

was included (*There was nothing I wanted to change about my family, I had a perfect childhood, and I had the best family in the world*). This scale reflects the tendency to provide exaggerated desirable responses rather than actual item content (i.e., the tendency to respond in a socially desirable manner rather than actual personal experiences and feelings) and was used as a means to verify the validity of the responses.

The CTQ has reported reliability coefficients ranging from satisfactory to excellent, with the highest coefficient for the Sexual Abuse Scale (median=.92) and the lowest for the Physical Neglect Scale (median=.66). Trauma reports on the CTQ were quite reliable with high correlations between the first and second testing (Emotional Abuse, $r=.80$; Physical Abuse, $r=.80$; Sexual Abuse, $r=.81$; Emotional Neglect, $r=.81$; Physical Neglect, $r=.79$). Cronbach alpha's for the following subscales were included: Emotional Abuse ($\alpha=.81$); Physical Abuse ($\alpha=.80$); Sexual Abuse ($\alpha=.89$); Physical Neglect ($\alpha=.54$); and Emotional Neglect ($\alpha=.85$). All subscales, except for the physical neglect subscale produced good reliability. The CTQ represents an improvement in terms of content validity by providing broader, more comprehensive content coverage.

Maltreatment variables, such as duration, frequency, and severity of abuse have not been sufficiently measured on the CTQ or in the maltreatment literature (Malinosky-Rummel and Hansen 1993) and have been shown to moderate outcomes of sexual abuse and to be a critical component in later adjustment (Browne and Finkelhor 1986). As such, four additional questions regarding maltreatment history were added to complement the CTQ. Participants indicated whether they had been maltreated during childhood and if so responded to further questions concerning the seriousness/severity of the maltreatment incident(s) experienced (*tolerable to extremely severe* on a five point Likert scale) and to what extent they feel the maltreatment incident(s) impacts their current lives (*It affects everything I do; It affects a lot of my life, but not everything I do and feel; and It does not affect my life or feelings at all*). A question regarding the frequency with which the maltreatment occurred was included to determine severity of maltreatment (*never; once or twice, several times, and frequently*). In order to assess whether current adjustment difficulties were long-term consequences of childhood maltreatment or short-term responses to recent maltreatment experiences, participants indicated the last time a maltreatment incident occurred (*never, it is still occurring, 1–2 years ago, or 3–7 years ago*).

Procedure

Participants were informed that the study was voluntary and examined etiological factors and a number of different issues related to gambling, experiences as a child, and high risk behaviors among young adults. Participating students required between 45–60 minutes to complete all instruments, no deceptive practices were included, and participants were assured of confidentiality.

Results

Gambling Behavior

Individuals were placed into four groups based upon their gambling history and severity (DSM-IV); *Non-Gambler* (no gambling during the past year), *Social Gambler* (DSM score 0–2), *At-Risk Gambler* (DSM score 3–4), and *Pathological Gambler* (DSM score ≥ 5). Of the entire sample, 21.5% of participants were identified as non-gamblers, 72.2% as social gamblers, 4.2%

as at-risk gamblers, and 2.1% as pathological gamblers. With respect to gender differences, males reported significantly more gambling problems than females, $\chi^2(3, N=1323)=42.87, p<.01$. Males were 6 times more likely to be classified as a pathological gambler and 3.5 times more likely to be classified as an at-risk gambler than females.

Childhood Maltreatment

Participants' subscale scores were grouped into four levels of maltreatment based upon pre-established scores (none/minimal, low/moderate, moderate/severe, and severe/extreme). Overall, of those individuals that reported any type of maltreatment, emotional neglect emerged as the most frequently endorsed form of maltreatment, followed by emotional abuse, physical neglect, physical abuse, and sexual abuse (Table 1).

Significant gender differences were found for emotional abuse, $\chi^2(3, N=1324)=8.26, p<.05$, emotional neglect, $\chi^2(3, N=1320)=11.58, p<.01$, and physical neglect, $\chi^2(3, N=1323)=14.75, p<.01$. Females were more likely than males to report emotional and sexual abuse for both the moderate to severe, and the severe to extreme groups; whereas, males were more likely than females to report physical abuse, emotional neglect, and physical neglect on both the moderate to severe and the severe to extreme groups.

Table 1 Severity of Childhood Maltreatment by Gender (Percentage)

CTQ Subscales ^a	Degree of Maltreatment (MT) ^b				Total MT Endorsement
	None or minimal	Low-moderate	Moderate-severe	Severe-extreme	
Emotional Abuse*					
Male	68.6	20.7	5.6	5.1	31.4
Female	61.0	25.0	7.5	6.5	39.0
Total	64.3	23.1	6.7	5.9	35.7
Physical Abuse					
Male	79.0	10.8	4.9	5.3	21.0
Female	82.2	7.9	4.5	5.4	17.8
Total	80.8	9.1	4.7	5.4	19.2
Sexual Abuse					
Male	89.4	4.9	4.2	1.4	10.5
Female	85.4	4.6	5.8	4.1	14.5
Total	87.2	4.8	5.1	2.9	12.8
Emotional Neglect*					
Male	56.3	29.4	8.7	5.6	43.7
Female	64.5	26.0	5.4	4.1	35.5
Total	61.0	27.4	6.8	4.8	39.0
Physical Neglect					
Male	66.1	19.8	9.2	4.9	33.9
Female	75.7	14.1	6.5	3.7	24.3
Total	71.6	16.6	7.6	4.2	28.4

^a CTQ = Childhood Trauma Questionnaire. ^b Severity of maltreatment based on standardized cut scores.

* $p < .05$.

Maltreatment as a Risk Factor for Excessive Gambling

The relationship between gambling problems and severity of maltreatment yielded significant differences across gambling groups and was found for all types of maltreatment; emotional abuse, $\chi^2 (9, N=1320)=29.30, p<.001$; physical abuse, $\chi^2 (9, N=1320)=50.92, p<.001$; sexual abuse, $\chi^2 (9, N=1319)=24.74, p<.01$; emotional neglect, $\chi^2 (3, N=1316)=32.76, p<.001$; and physical neglect, $\chi^2 (9, N=1319)=36.92, p<.001$ (Table 2).

Table 2 Severity of Childhood Maltreatment by Gambling Severity (Percentage)

CTQ subscale ^a	Degree of Maltreatment ^b				Total MT Endorsement
	None or minimal	Low-moderate	Moderate-severe	Severe-extreme	
Emotional Abuse**					
Non gambler	62.5	21.2	8.1	8.1	37.4
Social gambler	66.8	22.6	5.9	4.7	33.2
At-risk gambler	38.2	36.4	14.5	10.9	61.8
Pathological gambler	53.6	25.0	7.1	14.3	46.4
					N=1320
Physical Abuse**					
Non gambler	84.8	6.0	3.9	5.3	15.2
Social gambler	81.9	8.7	4.8	4.6	18.1
At-risk gambler	50.9	29.1	7.3	12.7	49.1
Pathological gambler	67.9	10.7	3.6	17.9	32.2
					N=1320
Sexual Abuse**					
Non gambler	84.8	4.2	6.4	4.6	15.2
Social gambler	89.0	4.7	4.1	2.2	11.0
At-risk gambler	72.7	7.3	14.5	5.5	27.3
Pathological gambler	75.0	7.1	10.7	7.1	24.9
					N=1319
Emotional Neglect**					
Non gambler	61.5	24.4	8.5	5.7	38.6
Social gambler	62.6	27.7	5.8	3.9	37.4
At-risk gambler	43.6	34.5	9.1	12.7	56.3
Pathological gambler	32.1	35.7	21.4	10.7	67.8
					N=1316
Physical Neglect**					
Non gambler	74.9	14.1	6.4	4.6	25.1
Social gambler	72.0	16.8	7.7	3.6	28.1
At-risk gambler	63.6	18.2	12.7	5.5	36.4
Pathological gambler	33.3	33.3	11.1	22.2	66.6
					N=1325

^aCTQ = Childhood Trauma Questionnaire. ^bSeverity of maltreatment based on standardized cut scores. * $p < .05$. ** $p < .001$.

Pathological gamblers reported emotional and physical neglect to be the most commonly experienced form of maltreatment independent of severity, whereas at-risk gamblers reported emotional abuse and emotional neglect as the most commonly experienced form of maltreatment. At-risk gamblers and pathological gamblers reported sexual abuse, emotional neglect, and physical neglect at the moderate to severe degree more frequently than non-gamblers and social gamblers, whereas the endorsement of emotional abuse was similar among the non-gamblers and pathological gamblers. At the severe to extreme levels of maltreatment, at-risk gamblers and pathological gamblers reported experiencing more severe forms of all types of maltreatment compared to non-gamblers and social gamblers.

Severity of maltreatment was combined to form only two categories (none/minimal & low/moderate categories versus moderate/severe & severe/extreme groups) to examine its impact upon excessive gambling. Analyses revealed significant differences for all five types of maltreatment by gambling severity; emotional abuse, $\chi^2(3, N=1320)=17.11, p<.001$; physical abuse, $\chi^2(3, N=1320)=10.64, p<.01$; sexual abuse, $\chi^2(3, N=1319)=21.28, p<.001$; emotional neglect, $\chi^2(3, N=1316)=22.25, p<.001$; and physical neglect, $\chi^2(3, N=1320)=17.79, p<.001$. As depicted in Fig. 1, at-risk and pathological gamblers were significantly more likely than non-gamblers and social gamblers to report a severe history of maltreatment, independent of maltreatment type.

In order to examine the interaction effects of gender, problematic gambling, and childhood maltreatment, several 2×3 univariate factorial analyses were conducted (gender by gambling severity for each interaction). The at-risk and pathological gambling groups were combined to form a problem gambling group given no statistically significant differences were found amongst these two groups on the MANOVA and based upon the significant commonalities between at-risk and probable pathological gambling groups. For all types of maltreatment, the level of gambling problems increased with reported childhood maltreatment, with problem gamblers reporting the highest maltreatment scores. Significant differences across gambling groups were found for all forms of maltreatment (emotional abuse [$F(2, 1317)=9.15, p<.001$]; physical abuse [$F(2, 1318)=15.49, p<.001$]; sexual

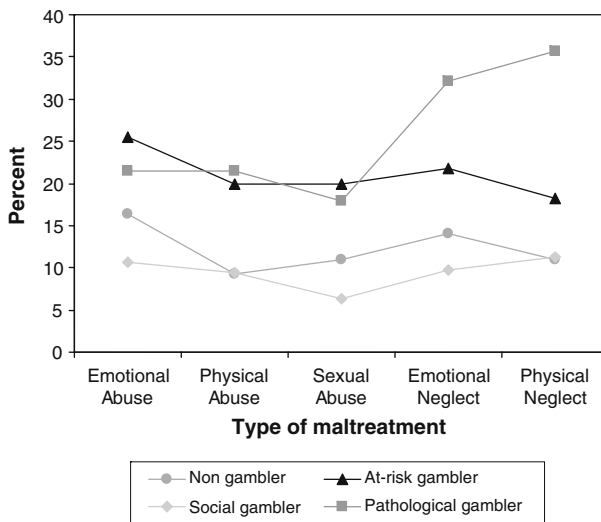


Fig. 1 Moderate to extreme maltreatment by gambling severity

abuse [$F(2, 1317)=5.09, p<.01$]; and emotional neglect [$F(2, 1317)=7.78, p<.001$] (see Table 3). Physical neglect was the only subscale where both a significant main effect of gender [$F(1, 1319)=6.04, p<.01$] and gambling group [$F(2, 1319)=8.47, p<.001$] were found. Examination of Tukey's post hoc analyses revealed that non-gamblers and social gamblers differed significantly from the problem gamblers with respect to the amount of emotional abuse, physical abuse, emotional neglect, and physical neglect experienced. With respect to sexual abuse, non-gamblers differed significantly from social gamblers, and social gamblers significantly differed from problem gamblers. However, problem gamblers and non-gamblers did not significantly differ from one another. In this sample, compared to non-gamblers and pathological gamblers, social gamblers reported the lowest sexual abuse scores (Table 3).

Of the social gamblers, females were also found to have higher mean scores on the emotional abuse subscale ($t=3.19, p<.001$) and on the sexual abuse subscale ($t=-3.62, p<.001$), while males reported higher mean scores on the emotional neglect subscale ($t=2.86, p<.01$), and on the physical neglect subscale ($t=1.95, p<.05$). While no statistically significant gender differences were found amongst the problem gamblers, female problem gamblers reported slightly higher mean scores on the emotional abuse and

Table 3 Childhood Maltreatment by Gender and Gambling Severity

CTQ subscales ^a	Gambling Group						
	N	Non Gambler		Social Gambler ^b		Problem Gambler ^c	
		M	SD	M	SD	M	SD
Emotional Abuse**							
Male	564	8.24	3.77	7.66	3.12	9.89	4.98
Female	753	8.75	4.24	8.37	3.74	10.10	3.11
Total	1317	8.57	4.08	8.07	3.51	9.94	4.59
Physical Abuse**							
Male	565	6.33	2.14	6.45	2.63	7.95	4.38
Female	754	6.54	3.36	6.31	2.63	9.00	4.61
Total	1318	6.47	2.97	6.37	2.63	8.20	4.43
Sexual Abuse*							
Male	565	5.35	1.52	5.27	1.16	6.54	3.88
Female	753	6.31	3.65	5.73	2.66	6.30	2.58
Total	1317	5.96	3.08	5.54	2.18	6.48	3.59
Emotional Neglect**							
Male	565	9.88	4.04	9.49	4.09	11.51	5.33
Female	753	8.93	4.46	8.73	3.94	11.00	4.38
Total	1317	9.27	4.33	9.05	4.02	11.39	5.10
Physical Neglect**							
Male	565	6.95	2.41	6.83	2.40	8.51	4.06
Female	755	6.43	2.45	6.53	2.35	7.55	2.37
Total	1329	6.62	2.45	6.65	2.38	8.28	3.74

^a CTQ = Childhood Trauma Questionnaire. ^b DSM-IV score (0–2). ^c Combined at-risk and probable pathological gambling group (DSM-IV score ≥ 3). * $p < .05$. ** $p < .001$.

physical abuse subscales and male problem gamblers reported higher mean scores on the sexual abuse, emotional neglect, and physical neglect subscales (see Table 3).

Independent of the CTQ measure, participants indicated whether they believe the maltreatment experience had significantly impacted their lives. Of those who reported a history of childhood maltreatment, 3.9% of non-gamblers, 2.2% of social gamblers, 10.9% of at-risk gamblers, and 14.8% of pathological gamblers reported that it significantly affected their psychological well-being and negatively impacted their daily life.

Discussion

The participants in the current appear to have similar gambling behaviors to those previously reported. Overall, 78% of young adults reported gambling within the past year, with almost 20% of these individuals gambling on a weekly basis. As typically found, a larger percentage of males (81%) than females (76%) reported gambling during the past 12 months. Among these young adults, 2.1% were found to have severe pathological gambling problems and 4.2% were identified as at-risk gamblers, experiencing some gambling-related problems but not reaching the criteria for pathological gambling.

The current research findings suggest that childhood maltreatment may be one more risk factor in helping us understand problem gambling. Overall, a strong linear trend was found for each form of maltreatment (emotional abuse, physical abuse, sexual abuse, emotional neglect and physical neglect) with the fewest problems occurring for non gamblers and the most for pathological gamblers. Of those individuals who reported some form of childhood maltreatment, 10.9% of at-risk gamblers and 14.8% of pathological gamblers reported that the maltreatment negatively impacted their daily life. If Jacobs (1986), Blaszczyński and Nower (2002), Derevensky and Gupta (2004) and others are correct, it may well be that a significant number of individuals with excessive gambling problems gamble in order to escape or to modulate negative affective states. The current results suggest that it is likely not only the act of the maltreatment experience itself that impacts future psychological problems, but the manner in which the past victimization experience is perceived. Given both at-risk and pathological gamblers report that the impact of their maltreatment is long-lasting, pervasive and negatively impacts their daily behavior, these individuals may be using gambling as a means to cope with current psychological problems and to escape from their past victimization.

Among those individuals reporting having experienced some form of childhood maltreatment, at-risk gamblers were more likely to report emotional abuse and neglect whereas the pathological gamblers report significantly more emotional and physical neglect. At the severe to extreme levels of maltreatment, at-risk and pathological gamblers reported more childhood emotional and physical neglect than non-gamblers and social gamblers. Sexual abuse was the least common form of maltreatment reported independent of gambling severity. However, twice as many at-risk and pathological gamblers reported experiencing some form of sexual abuse compared with non and social gamblers. The finding that pathological gamblers experienced a significantly greater degree of neglect compared to the sample suggests its overall negative impact upon one's psychological adjustment. The fact that no significant gender differences were found with respect to maltreatment and problem gambling may have been due to the small number of female pathological gamblers in the sample. Nonetheless and not surprisingly, female problem gamblers reported elevated mean scores on the emotional and physical abuse subscales. Interestingly, male problem gamblers reported higher mean scores than females on the

sexual abuse subscale. While the design of this study was cross-sectional and cannot support any causal or temporal explanations of the relationship between childhood maltreatment and problem gambling, it does provide evidence suggesting such an association may exist. The hypothesis that problem gamblers would report significantly more childhood maltreatment was well supported and further provides evidence for Jacobs' (1986) theory.

The results elucidate the importance of addressing problem gambling from an inclusive, multidimensional perspective. Childhood adversities, including maltreatment, may establish enduring psychological vulnerabilities that later results in a heightened emotional reactivity and other psychological disorders, ultimately leading some individuals to use gambling as a form of psychological escape. The current results highlight the importance of recognizing that gambling problems and the pathways leading to them are heterogeneous. There are multiple determinants in addition to different patterns of abuse, dependence, co-morbidity, and dysfunction that lead to the development of gambling problem. The results further underline the importance of a routine assessment for childhood trauma and co-morbid mental health problem in individuals presenting for the treatment of gambling problems. Gupta and Derevensky (2008b) have long argued that in order to best treat the adolescent and young adult pathological gambler one needs to address underlying psychological problems in concordance with the individual's gambling behaviors. Only addressing one's gambling behavior in isolation may meet with limited long term success in treating individuals with gambling problems.

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