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Gambling and Adverse Life Events Among Urban Adolescents

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Abstract

This study explored the cross sectional association between adverse life events and gambling in a sample of 515 urban adolescents (average age 17, 55% male, 88% African American). Approximately half of the sample had gambled in the past year (51%); 78% of the gamblers gambled monthly and 39% had a gambling-related problem. On the other hand, 88% of the sample had experienced at least one life event in the past year, and those experiencing events tended to live in more disadvantaged neighborhoods. The mere acknowledgement of experiencing a stressful life event in the past year (yes/no) was not associated with an increase in odds of being a gambler, with gambling more frequently, or with having a gambling problem. However, when the context of the event was considered, an association was found between directly experiencing threatening and deviant/violent types of events and frequent gambling ($OR > 2$). Additionally, the probability of being a gambler increased as the number of events experienced increased ($aOR = 1.07$, 95% $CI = 1.01, 1.13$, $P = 0.013$), but problems among gamblers were not associated with the number of events experienced ($aOR = 1.01$, 95% $CI = 0.92, 1.11$, $P = 0.876$). During adolescence, life events appear to be connected more with the frequency of gambling rather than with problems related to gambling.

Keywords

Gambling; Life events; Adolescence

Introduction

Gambling has its onset during adolescence, with 68% of US adolescents between the ages of 14–21 reporting that they have gambled in the past year (Welte et al. 2008). It has become easier to gain access to gambling opportunities as the industry continues to expand. Government sponsored games through Lottery corporations, the expansion of legalized gambling venues throughout the US and internationally, and the promotion of gambling as a glamorous form of entertainment has begun to ‘normalize this behavior’ (Korn and Shaffer 1999).

Of those who have gambled, 10–15% are at risk for the development of a gambling problem and 3–8% are considered problem gamblers (Derevensky and Gupta 2007; National Research Council 1999; Derevensky et al. 2003). Problem and pathological gamblers represent the maladaptive end of the continuum of gambling behaviors (Volberg 2001). However, occasional gamblers may also be at risk for gambling-related problems (e.g., legal problems, school drop-out). School-based surveys as well as longitudinal population-based surveys have shown that common factors associated with problem gambling in adolescence and young adulthood include: being male, using alcohol and drugs, being involved in delinquent activities, having problems in school, being part of a minority, having psychological/psychiatric problems and having parents who gamble (Barnes et al. 2005; Slutske et al. 2005; Stinchfield et al. 1997; Winters et al. 1995, 2002).

Adolescence is also the time when youth learn to regulate their emotions and expand their arsenal of personal coping strategies for dealing with stress. Some people deal with *stress* by turning to diversions, not all of them healthy. Excessive gambling may be attractive to adolescents as a means to escape their own life’s situation when under stress. Additionally, there is a growing concern that adolescents may be gambling to relieve depression symptomatology. Adolescents are already familiar with technology-based games (video games and arcade machines) that allow them to step into another world and perhaps it isn’t hard to imagine a penchant to escape to internet and online gambling that is based on and driven by technology too—websites, software, forums, tutorials, computer graphics as well as electronic gaming machines (Delfabbro et al. 2009; King et al. 2010). Emotionally vulnerable youth under a lot of stress may inappropriately turn to gambling as a chance to feel important/in control if they win, escape or avoid dealing with their emotional issues (Blanco et al. 2006; Dannon et al. 2006; Gupta and Derevensky 1998; Jacobs 1988; Nower and Blaszczyński 2004; Wood and Griffiths 2007). But gambling which may start as a fun distraction can quickly lead to problems and turn into an addiction. Emotion-based, avoidant, and distraction orientated coping styles are often exhibited in youth who gamble excessively (Gupta et al. 2004; Nower et al. 2004).

Interpersonal relationships and acute environmental stressors may increase emotional regulation problems. Routine daily stresses have been link to spontaneous urges to gamble among adult pathological gamblers (Elman et al. 2010). Furthermore, 80% of individuals experience at least one major traumatic event involving victimization or witnessing violence by the time they reach young adulthood (Breslau et al. 1998, 2004). Youth with gambling-related problems have been found to experience a greater number of negative major life events relative to those who did not gamble (Bergevin et al. 2006). However, very few studies explore the type/context of the life events or if experiencing different types of stressful events are associated with the earliest stages of adolescent gambling behavior, namely do they gamble and how often.

In this report, we examine the association between experiencing adverse events (life event in which one has little or no control over) and being involved in gambling behaviors and

gambling-related problems among a sample comprised largely of urban African American adolescents. We also explore whether the context of the adverse event exposure may influence the association.

Methods

Participants and Procedure

The data for this cross sectional analysis come from an interview conducted in 2004. This interview is part of a longitudinal prospective study being conducted within the context of a group randomized prevention trial that has been following the same cohort of youth since they began first grade in nine primary public schools in a US mid-Atlantic city. Details of the trial design and interventions are available elsewhere (Ialongo et al. 2001). The sampling frame of 678 youth is representative of all children entering first grade in the fall of 1993 (53% male; 86% African American and 14% white; 62% received free or reduced lunch). This entire cohort is tracked annually and does not exclude those who dropped out of school or those incarcerated. In 2004, when most of the cohort was in 11th grade, 76% of the cohort ($n = 515$: 55% male, 88% African American, mean age 17.1 years) participated in a 60–90 min self-administered computer interview. No statistically significant differences with respect to baseline teacher ratings, academic achievement, ethnicity, sex, or free lunch status were revealed for those lost to follow-up (Furr-Holden et al. 2004). Study protocols were approved by the institutional review board of Johns Hopkins University. Parental signed consent and adolescent assent were obtained.

Measures

Gambling involvement was assessed using The South Oaks Gambling Screen-Revised for Adolescents (SOGS-RA) (Winters et al. 1993). Eleven items inquire about the frequency of being involved in gambling behaviors (e.g., slots, lottery, betting) which allow us to distinguish whether participants have gambled in the prior year or not (nongambler vs. gambler). The responses (never, less than once a month, once a month, at least once a month and everyday) to these items were also used to classify respondents into four groups reflecting the intensity/frequency of being involved in gambling activities in the past year: (1) non-gamblers, (2) occasional gamblers who gamble less than once a month, (3) monthly gamblers who take part in only 1 or 2 different gambling activities at least once a month, and (4) frequent gamblers who are involved in more than two different gambling activities monthly. Twelve other SOGS-RA items assess gambling-related problems that youth may be experiencing; the items emphasize negative behaviors and feelings as a result of gambling involvement. Using these items we classified youth who had gambled as those with no gambling problems and those with at least one gambling problem. A significant variation in the proportion of those with gambling problems was seen among the different gambling frequency groups (15, 35, and 58% had problems among the occasional, monthly, and frequent gambling groups respectively, $P < 0.001$).

In accord with Gore et al. (1993), adolescents indicated if they or some one in their social network or family had experienced an adverse or life changing event in the year prior to the interview (approximately between ages 16 and 17). The check list of 31 events included a broad range of experiences relevant to adolescence and family-related stressors. Items were adapted from Coddington (1972), the Adolescent Perceived Events Scale (APES) (Compas et al. 1987), the Adolescent-Family Inventory of Life Events and Changes (A-FILE) (McCubbin and Patterson 1982), and the Health and Daily Living Scale (Moos et al. 1986). In addition to exploring any exposure in the past year (yes/no) and the number of exposures, we also factored in the context of the exposure. First, distinguishing by the injured party, e.g., distinguishing between events happening to the youth directly (yes/no) versus those

happening to others in their network (indirect experience, yes/no). Then, we further explored the nature of the adverse event, trying to capture possible underpinnings and the severity or chronicity of the stressful experience. Many of the adverse life events occurred infrequently and as a result, several events were combined into 11 broader themes that captured the circumstance of the event but did not factor in the specific injured party: (1) “*deviance*” which included the events of running away from home or getting into trouble with the law; (2) “*violence spectator*” included seeing someone stabbed/shot, killed, or robbed; (3) “*housing*” included having their house catch on fire, burglarized, being evicted, or having to move; (4) “*victimization*” included being robbed, beaten up, or shot/stabbed having a gun or knife pulled on them, or being threatened to be beaten; (5) “*spectator to threats*” included seeing someone threaten someone else to kill or beat them up, or seeing someone pull a gun or knife on someone else, or; (6) “*family death*”—having a parent, grandparent, or sibling die; (7) “*family illness*”—having an ill or injured parent or grandparent; (8) “*loss of friend*” included having a friend die or move away; (9) “*parent relationship*” included having parents divorced or having little or no contact with at least one parent; (10) “*parent lose job*” was if a parent had lost a job; and (11) “*other*” included being in a serious accident, upsetting change in physical appearance, or became physically handicapped.

Family characteristics (e.g., single caregiver, educational status of adults in household) were assessed by parental report. Demographic characteristics of the sample (e.g., age, race, and free lunch status) were obtained from school records. Free lunch eligibility has been found to correlate highly with family income and other traditional measures of socioeconomic status (Ensminger et al. 2000). Neighborhood environment was assessed using a 10-item scale, based on an instrument originally developed by Elliott et al. (1989). The context of the neighborhood was well-measured by interview items on safety (e.g., ‘there are plenty of safe places to walk or spend time outdoors’ and ‘feeling safe walking alone during the day and night’), neighborhood violence (e.g., ‘every few weeks adults and kids get beaten up or mugged’), law abidance (e.g., ‘most adults respect the law’ and ‘people damage or steal other’s property’), and drug use (e.g., ‘seen users or dealers’ and ‘people with money are the drug dealers’). Youth indicated whether statements were true or false for their neighborhood using a Likert rating (1 = not at all true; 4 = very true). Items were scored so that higher scores indicated a greater degree of neighborhood disadvantage. The scores were summed and then tertiled to represent increasing aversive neighborhood conditions. Internal consistency was 0.85.

As mentioned this cohort of youth were part of an intervention trial. Within each school, there were three Grade 1 classrooms, which were then randomly divided into intervention groups (classroom-centered and family-school partnership) and a group where the usual and customary curriculum was provided (see Ialongo et al. 2001 for details of trial). The goal of this paper is not to extensively evaluate intervention effects on either of our main variables as neither adverse life event experiences or gambling were targeted outcomes of the trial. However, to minimize possible differences attributed to the design of the intervention trial we include a covariate to adjust for intervention in our models.

Statistical Analysis

Exploratory and contingency table analyses explored differences in the association between gambling and experiencing a life event (chi-square using Fisher exact tests when appropriate). Logistic regression models estimated odds ratios (aOR) and 95% confidence intervals in the presence of other covariates: subsidized lunch status, gender, race, single-head of household, parent education, neighborhood disadvantage, and first grade intervention status. A *P* value less than 0.05 was considered significant. To accommodate the initial sample design (clustering of students within schools), a variant of the Huber-

White sandwich estimator of variance to obtain robust standard errors and variance estimates was used (Rogers 1993).

Results

A large majority ($n = 453$, 88%) of the adolescent participants reported having been exposed to at least one stressful life event in the year preceding the interview. On average, youth experienced 3–4 events, with almost a quarter of them indicating they had experienced at least 6 of the stressors assessed. Being exposed to a life event in the past year did not vary by several individual and family characteristics (Table 1), however, youth living in high disadvantaged neighborhoods were more likely to have been exposed to at least one life stressor as compared to youth living in less disadvantaged neighborhoods (OR = 2.28, 95% CI = 1.19, 4.38, $P = 0.013$).

Half of the sample (51%) had gambled in the year prior to being interviewed. As seen in Table 1, a larger proportion of those who gambled in the past year were male (67% male vs. 33% female, $P < 0.001$), but otherwise the distribution of other individual, family and neighborhood characteristics were similar to nongamblers. Among those who had gambled in the past year, 78% gambled monthly (no gender differences, $P = 0.07$) and 39% had a gambling related problem, with more problems among male gamblers than female gamblers (48% vs. 22%, $P < 0.001$).

The mere acknowledgement of experiencing a stressful life event in the past year (yes/ no) year was not associated with increased odds of having gambled in the prior year, with gambling frequently, or with having a gambling problem (Table 2). However, upon further exploration regarding the context of the event, gamblers were found to be more likely to have experienced an adverse event that happened to them directly, whereas no differences were seen if the stressful experience involved an event that happened to a youth's network member. Additionally, the association between gambling and a direct experience of the stressful event appears to be strongest among those who gamble monthly, while occasional gambling was more strongly associated to events involving what was happening to one's network.

In a deeper probing of the circumstance of the events, we found the most common life events experienced by the youth in our sample involved some disrupted or traumatic parent relationship (experienced by 50% of the sample), some kind of deviant activity (40%), loss of a friend (39%), and witnessing threats (35%). The frequency of gambling activity was found to be associated with particular types of adverse life events (Table 3). Compared to non gamblers, the estimated odds of gambling monthly was doubled if an adolescent had experienced an event involving "seeing someone else threatened" ($P = 0.034$). In addition, the estimated odds of gambling in more than two activities monthly was associated with events related to "deviance" ($P = 0.003$), "victimization/violence" ($P = 0.013$) and "family illness" ($P = 0.001$) even when the family and neighborhood conditions were held constant.

Lastly, we also explored whether an association existed between gambling and the number of events that a youth experienced. Youth who gambled tended to experience a greater number of events as compared to youth who did not gamble (mean 4.9, 95% CI = 4.4–5.4 vs. mean 3.6, 95% CI = 3.2–4.0; $P = 0.004$, respectively). Gamblers had an estimated 9% increase odds for every additional adverse event experienced in the past year that decreased only minimally in models controlling for demographic and family characteristics and neighborhood disadvantage (aOR = 1.07, 95% CI = 1.01, 1.13, $P = 0.013$). Among gamblers, additional adverse events did not increase the estimated probability of having a

gambling related problem (aOR = 1.01, 95% CI = 0.92, 1.11, $P = 0.876$). On average, gamblers without problems experienced one less event in the past year than the adolescent gamblers who had a gambling-related problem (mean 5.3, 95% CI 4.2–6.6 vs. mean 6.4, 95% CI = 5.3–7.5).

Discussion

Gambling and exposure to an adverse life event at approximately age 16–17 was quite common among these youth. As could be expected adverse life event experiences were more common among youth who lived in neighborhoods that were less safe and more violent. Contrary to other samples where females are often found to experience more negative life events than males (e.g., Bergevin et al. 2006), in this sample no demographic differences were seen. Consistent with the work of others, more males than females indicated they had gambled (Desai et al. 2005; Hardoon et al. 2004). No other association was found between the demographic variables and gambling, which is not always the case in samples of nonminorities.

The mere acknowledgement of experiencing a stressful life event in the past year (yes/ no) was not associated with an increase in odds of being a gambler, with gambling more frequently, or with having a gambling problem. However, when the number and context of the events were taken into account, associations between experiences and gambling emerged. Youth who gambled tended to experience a greater number of adverse life events and the probability of gambling varied by the type of event experienced. Adverse life events that included an experience by someone in the adolescent's social network of family and friends (indirect experience) were associated with occasional gambling. On the other hand, personal experiences of a life event in the past year, which would perceivably require more adaptive personal coping skills, were associated with monthly gambling. Often these stressful experiences included a degree of deviant behavior, threats of harm, and violence. Studies of adult gamblers often find specific childhood events, such as witnessing someone being assaulted or killed, and personal physical assaults commonly associated with pathological gambling (Ciarracocchi and Richardson 1989; Kausch et al. 2006; Scherrer et al. 2007; Specker et al. 1996).

Contrary to the findings of others, adverse events were not found to be associated with having a gambling-related problem. In a sample of Canadian students from both rural and urban high schools in Ontario, youth with gambling-related problems reported experiencing a greater number of major negative life events relative to social gamblers and non-gamblers (Bergevin et al. 2006). In a sample of adolescents seeking treatment for marijuana abuse, youth with gambling related problems have also been found to experience more victimization than gambling youth without problems (Petry and Tawfik 2001). The problem gamblers were more likely to report having been attacked by someone using a weapon and continued to worry about being attacked, but the non-problem gamblers were more likely to have been abused emotionally/verbally. Our findings echo the direct and more threatening/violent circumstances associated with a greater involvement in gambling activities, which overtime could place the adolescent at greater risk of developing problems.

In addition to individual influences, such as impulsivity and coping ability, environmental stressors may affect the opportunities in which to be involved in gambling activities. Welte et al. (2004) have shown that there are environmental influences in disadvantaged neighborhoods that encourage gambling. In our study, even while controlling for neighborhood disadvantage, we found some evidence that being exposed to events that involved a features of violence were associated with frequent gambling. We can not say the violence and other events occurred in the respondents' neighborhood per se, however, the

young age of the sample would probably restrict their movements much more than older adults with greater access and means to travel greater distances.

It is necessary to note some strengths and potential limitations of this study. This sample was largely comprised of African-American students from urban neighborhoods selected to be representative of all students starting first grade in the public school system in 1993. Thus cohort effects are minimalized and there is very little variation in age since they all began school the same calendar year. These findings add to the knowledge about gambling behaviors among minority youth as very few samples of other studies include large numbers of minority youth. However, the characteristics of the sample hamper generalization to other students growing up in other metropolitan areas with different racial and cultural compositions as Welte et al. (2008) have found racial differences. They found African American youth on average to gamble less, but if they did gamble they gambled more frequently. Another major limitation of this study is due to the secondary nature of the topic within the larger cohort prospective study from which the data was drawn. The cross-sectional nature of the data precluded us from establishing the temporal order and other important covariates such as coping measures are lacking. Future studies with longitudinal data should investigate the role of acute stressors on the incidence of gambling and the transition of gambling to problem gambling in adolescence and explore whether coping is the mechanism involved in the connection.

Recognizing that the types/context of life events (familial vs possible environmental as well as if direct victim vs indirect) may drive different reasons and opportunities to gamble are notable. The knowledge of potential risk factors for gambling involvement among youth may enable health providers to more effectively screen for this problem behavior. While youth may not always acknowledge involvement in addictive or pathological behaviors, they may be more open to disclosing events that have impacted their lives. This would open the door to discuss coping and adaptation and the impact of stressful events on their subsequent gambling behaviors and health or how their gambling behaviors are putting them at increased risk for potentially more stress. The early identification and prevention of engaging in gambling behaviors is important in order to prevent a cascade of other potentially devastating consequences from occurring.

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Table 1
Individual and macro characteristics by past year adverse life event exposure and gambling behavior

Characteristics	Total (n = 515) n (%)	Past year adverse life events		Past year gambling		P value
		No (n = 62) n (%)	Yes (n = 453) n (%)	No (n = 254) n (%)	Yes (n = 261) n (%)	
<i>Gender</i>						
Male	283 (55.0)	34 (54.8)	249 (55.0)	109 (42.9)	174 (66.7)	< .001
Female	232 (45.0)	28 (45.2)	204 (45.0)	145 (57.1)	87 (33.3)	
<i>Race</i>						
Minority ^a	452 (87.8)	50 (80.7)	402 (88.7)	226 (89.1)	214 (86.6)	0.41
Non-minority	63 (12.2)	12 (19.3)	51 (11.3)	28 (11.0)	34 (13.4)	
<i>Subsidized lunch</i>						
Yes	357 (69.3)	19 (30.6)	134 (29.6)	175 (68.9)	182 (69.7)	0.79
No	153 (29.7)	42 (67.7)	315 (69.5)	77 (30.3)	76 (29.1)	
Missing	5 (1.0)	1 (1.6)	4 (0.9)	2 (0.8)	3 (1.2)	
<i>Caregiver marital status</i>						
Single/separated/ div/widow	258 (50.1)	29 (46.8)	229 (50.5)	122 (48.0)	136 (52.1)	0.26
Married/living as married	189 (36.7)	26 (41.9)	163 (36.0)	93 (36.6)	96 (36.8)	
Missing	68 (13.2)	7 (11.3)	61 (13.5)	39 (15.4)	29 (11.1)	
<i>Caregiver highest education</i>						
High school graduate	363 (70.5)	46 (74.2)	317 (70.0)	181 (71.3)	182 (69.7)	0.20
< HS or GED	82 (15.9)	9 (14.5)	73 (16.1)	34 (13.4)	48 (18.4)	
Missing	70 (13.6)	7 (11.3)	63 (13.9)	39 (15.3)	31 (11.9)	
<i>In 1st grade intervention classroom</i>						
Yes	346 (67.2)	41 (66.1)	305 (67.3)	169 (66.5)	177 (67.8)	0.76
No	169 (32.8)	21 (33.9)	148 (32.7)	85 (33.5)	84 (32.2)	
<i>Neighborhood disadvantage</i>						
Low	187 (26.3)	32 (51.6)	155 (34.2)	103 (40.5)	84 (32.2)	0.11
Medium	147 (28.5)	15 (24.2)	132 (29.1)	71 (28.0)	76 (29.1)	
High	181 (25.2)	15 (24.2)	166 (36.6)	80 (31.5)	101 (38.7)	

^aMinority: 99% African American and 1% Hispanic

Table 2

Estimated proportions and odds ratios of youth experiencing adverse life events by gambling status

	Any adverse life event		Direct experience (self)		Indirect experience (network)	
	n (%)	aOR ^a (95% CI)	n (%)	aOR ^{a,b} (95% CI)	n (%)	aOR ^{a,c} (95% CI)
<i>Gambling in past year</i>						
No	254	219 (86.2)	1.0	151 (59.4)	1.0	188 (74.0)
Yes	261	234 (89.6)	1.18 (0.73, 1.91)	194 (74.3)	1.67 (1.16, 2.41)*	210 (80.5)
<i>Frequency of gambling activity</i>						
Never	254	219 (86.2)	1.0	151 (59.4)	1.0	188 (74.0)
Occasional ^d	58	50 (86.2)	1.08 (0.49, 2.39)	37 (63.8)	0.91 (0.50, 1.65)	47 (81.0)
Monthly ^d	109	98 (89.9)	1.21 (0.61, 2.37)	81 (74.3)	1.94 (1.17, 3.21)*	82 (75.2)
Frequent ^d	94	86 (91.5)	1.25 (0.62, 2.52)	76 (80.8)	1.87 (0.97, 3.61)	81 (86.2)
<i>Gambling problems among gamblers</i>						
No	159	139 (87.4)	1.0	112 (70.4)	1.0	122 (76.7)
Yes	102	102 (93.1)	1.47 (0.40, 5.36)	82 (80.4)	1.55 (0.76, 3.17)	88 (86.3)

^a Adjusted for gender, race, subsidized lunch, single caregiver household, caregiver highest education, neighborhood disadvantage and intervention

^b Also adjusted for network exposure

^c Also adjusted for direct exposure

^d Occasional gamblers gamble less than once a month, monthly gamblers take part in 1 or 2 different activities at least once a month, frequent gamblers are involved in more than two different gambling activities monthly

* P value < 0.05

Table 3

Proportions and estimated odds ratios for the association between frequency gambling groups and each of the stressor themes

Adverse life event categories (number of events represented)	Total n exposed	Non gambler (reference)	Occasional gambler ^a		Monthly gambler ^a		Frequent gambler ^a	
			n (%)	aOR ^b (95% CI)	n (%)	aOR ^b (95% CI)	n (%)	aOR ^b (95% CI)
Deviance (2)	208	87 (41.8)	21 (10.1)	1.25 (0.70, 2.22)	43 (20.7)	1.16 (0.61, 2.18)	57 (27.4)	2.27 (1.32, 3.92)*
Saw violence to strangers (3)	54	20 (37.0)	3 (5.6)	0.63 (0.17, 2.29)	15 (27.8)	1.33 (0.71, 2.51)	16 (29.6)	1.14 (0.55, 2.37)
Unstable housing (4)	97	46 (47.4)	13 (13.4)	1.39 (0.69, 2.81)	21 (21.6)	1.11 (0.57, 2.17)	17 (17.5)	0.64 (0.33, 1.26)
Victimization/violence (5)	129	49 (38.0)	15 (11.6)	1.12 (0.53, 2.36)	28 (21.7)	1.28 (0.73, 2.26)	37 (28.7)	2.15 (1.17, 3.93)*
Saw others threatened (4)	180	65 (36.1)	14 (7.81)	0.72 (0.36, 1.44)	49 (27.2)	2.21 (1.30, 3.82)*	52 (28.9)	2.39 (1.30, 4.39)*
Family death (3)	137	61 (44.51)	16 (11.7)	1.40 (0.78, 2.50)	28 (20.4)	1.02 (0.55, 1.91)	32 (23.4)	1.36 (0.74, 2.51)
Family illness (2)	146	63 (43.1)	19 (13.0)	1.48 (0.82, 2.67)	24 (16.4)	0.88 (0.52, 1.50)	40 (27.4)	2.13 (1.36, 3.35)*
Loss of friend (2)	199	89 (44.7)	24 (12.1)	1.26 (0.67, 2.37)	44 (22.1)	1.27 (0.70, 2.32)	42 (21.1)	1.29 (0.69, 2.42)
Parent relationship (2)	257	118 (45.9)	32 (12.4)	1.36 (0.67, 2.78)	55 (21.4)	1.21 (0.72, 2.05)	52 (20.2)	1.45 (0.84, 2.50)
Parent lost job (1)	91	39 (42.9)	12 (13.2)	1.59 (0.91, 2.77)	21 (23.1)	1.26 (0.64, 2.47)	19 (20.9)	1.19 (0.73, 1.95)
Other (3)	92	42 (45.6)	8 (8.7)	0.99 (0.48, 2.03)	21 (22.8)	1.17 (0.60, 2.29)	21 (22.8)	1.37 (0.68, 2.75)

^a Occasional gamblers gamble less than once a month, monthly gamblers take part in 1 or 2 different activities at least once a month, frequent gamblers are involved in more than two different gambling activities monthly

^b Adjusted for gender, race, subsidized lunch, single caregiver household, caregiver highest education, neighborhood disadvantage and intervention

* P value < 0.05