The WAGER Vol. 9(34) – Playing for more than lunch money: An examination of adolescent gambling

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Though adolescents are unlikely to suffer the same economic and familial consequences as adult gamblers, adolescents who gamble excessively1 are at increased risk for "delinquency and crime, the disruption of relationships, and impaired academic performance and work activities" (Ladouceur, Dubé, & Bujold, 1994). These consequences could seriously impact the future lives of these youths, and indeed, it seems that they carry over to other phases of life: a recent study of college gamblers found that these students were also less likely to be academically successful than their non-gambling counterparts, and more likely to use illicit drugs (Labrie, Shaffer, LaPlante, & Wechsler, 2003). Furthermore, starting to gamble early seems to be a risk factor for developing gambling problems later in life; in one recent study, pathological gamblers reported that they started gambling seriously at 9 or 10 years of age (Wynne, Smith, & Jacobs, 1996). Clearly, these findings illustrate the importance of studying adolescent gambling, both to understand the role of adolescent gambling in the development of problem gambling later in life (see WAGER 6(10)), as well as the possible risk factors that contribute to problem gambling in youth (see WAGERs 7(17) & 8(3)). This week the WAGER reports the results of a recent study by Hardoon, Gupta, and Derevensky (2004) that examined the risk factors associated with gambling in adolescents: the authors examined the relationship of psychosocial variables (e.g., lack of social support, substance use problems, and learning and behavior problems) and the severity of disordered gambling among youths.

Hardoon et al. (2004) sampled 2,336 students (981 males, 1,326 females, 29 undisclosed) from grades 7-13 (mean age 14.76 years, SD = 1.91) of 34 Ontario schools. Students completed a questionnaire that incorporated the following five instruments: (1) The Gambling Activities Questionnaire (GAQ; Gupta & Derevensky, 1996), used in this study to assess gambling behavior and family and peers' gambling and substance using behavior; (2) DSM-IVMR-J (Fisher, 2000),

used to screen for pathological gambling; (3) Conners-Wells Adolescent Self-Report Scale: Long Version (CASS:L; Conners & Wells, 1997), used to assess familial, emotional, cognitive, and behavioral problems; (4) Perceived Social Support From Friends and Family Scale (PSS; Procidano & Heller, 1983), used to assess perceived support from family and friends; and (5) Persona Experience Screening Questionnaire (PESQ; Winters, 1991), used to screen for alcohol and substance use involvement.

Sixty-six percent of the students sampled had gambled in the past year, and 13% met criteria for at-risk (8%) or pathological gambling (5%) (see Table 1). Male participants were five times more likely than females to be classified as probable pathological gamblers, and 2.5 times more likely to be classified as at-risk gamblers, both statistically significant differences. The distribution of probable pathological gamblers remained consistent across grades 812, though the lowest percentage was found in the 7th grade sample and the highest in the 13th grade sample.

Table 1: Gambling severity by gender, familial and behavioral problems, and risk for substance use (adapted from Hardoon et al., 2004)

		Gambling Groups (%)			
	Sample (N = 2,328)[a]	Non-Gambler (*n* = 775)	Social Gambler[b] (*n* = 1,254)	At-risk Gambler[c] (*n* = 186)	Probable Pathological Gambler[d] (*n* = 113)
GENDER*	MALE (*n* = 978)	22.8	56.3	11.8	9.1
	FEMALE (*n* = 1,321)	41.2	52.3	4.8	1.7
FAMILIAL AND BEHAVIORAL PROBLEMS[e]	FAMILY PROBLEMS*	7.9	10.6	19.4	31.9
	EMOTIONAL PROBLEMS*	7.2	10.5	15.1	27.4
	CONDUCT PROBLEMS*	7.5	14.2	31.2	55.8
	ANGER CONTROL PROBLEMS*	5.0	7.1	12.4	22.1
SUBSTANCE USE[f]	AT-RISK*	7.7 (M = 21.35; SD = 7.00)	15.4 (M = 24.22; SD = 8.51)	31.9 (M = 29.61; SD = 12.09)	50.9 (M = 34.41; SD = 13.04)

a = 8 participants did not complete the DSM-IV-MR-J; b = DSM-IV-MR-J score 0-1; c = DSM-IVMR-J score 2-3; d = DSM-IV-MR-J score > 4; e = % of students scoring above clinical cutoff (> 65; CASS:L Subscale); f = % of students scoring in the high-risk category (i.e., 1.5 SDs above mean of the general sample; PESQ subscale); * statistically significant difference across gambling groups, $p < .001$. (2)

At-risk and probable pathological gamblers reported having significantly more immediate family members and friends with gambling and alcohol or drug problems, and less social support from family and friends. Probable pathological gamblers also were significantly more likely to have family, emotional, and

behavioral problems; in addition, they were more at risk for substance use problems than other participants.

The authors ran two backward stepwise logistic regressions predicting gambling severity (i.e., probable pathological vs. not, and at-risk/probable pathological vs. not) from the instrument subscales described earlier. The final models identified the same four variables as most predictive of disordered gambling: (a) family problems (CASS:L), (b) conduct problems (CASS:L), (c) risk for substance use problems (PESQ), and gender (i.e., being male).

The authors noted that the findings of this study regarding rates of youth gambling and gambling problems are consistent with previous research, though recent studies have found slightly lower rates of probable pathological gambling in Ontario youths. The fact that probable pathological gamblers and at-risk gamblers in the youth sample used by Hardoon et al. (2004) reported feeling less support from both family and friends than others in the sample suggests that perceived family and peer support might protect against the development of problem gambling. However, peer networks themselves are not necessarily protective: probable pathological gamblers reported having significantly more friends with gambling and substance use problems than others in the sample, indicating the possible role of peers in their disordered behavior. The strongest risk factors in the study, those that contributed to the final model predicting disordered gambling, were all measures of comorbid psychopathology.

One limitation to this study is that it remains unclear whether some of the factors the authors label as risk-factors do indeed place adolescents at a priori risk, or whether they emerge post hoc, as a result of problem gambling (e.g., lack of social support might precede gambling problems but also might be a result of such problems). A longitudinal study is necessary to verify the antecedents and consequents of adolescent gambling problems. Nonetheless, the almost identical results of the logistic regression predicting probable pathological gambling and at-risk/probable pathological gambling suggest that there are a few robust psychosocial correlates of problem gambling at any level. The authors speculated that “perhaps there is no longer value in differentiating between at-risk and probable pathological gamblers and subsequent classification should combine the two groups into one ‘problem gambling’ group” (Hardoon et al., 2004, p. 177); the results of this study seem to indicate that at-risk and probable pathological gambler classifications are not qualitatively different. However, though the at-risk

and probable pathological gambler classifications might fall along the same qualitative dimension, the percentages presented in Table 1 and our post-hoc analyses show that at-risk and probable pathological gamblers do differ quantitatively in all risk factors. Maintaining the distinction between the two in diagnosis could aid in early intervention and/or prevention programs, which, in turn, could limit the adverse consequences of gambling related problems. Further research is necessary to gain a better understanding of this continuum and the implications of keeping or eliminating these categories.

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Notes

1 Some investigators refer to adolescents who engage in excessive gambling and are experiencing serious gambling-related problems as probable pathological gamblers. This situation emerged when some investigators thought that only clinicians could make a diagnosis and that screening instruments required validation. However, as Meehl (1954) has shown, clinicians are not necessarily more accurate diagnosticians than psychometric instruments. Nevertheless, in this WAGER we use probable pathological gambler because this is the language of Hardoon, et al. (2004).

2 Post-hoc .2 analyses by the WAGER staff using the data presented by Hardoon et al. indicated that for all variables in the table, probable pathological gamblers differed significantly (i.e., $p < .001$) from all others and non-gamblers differed significantly from all others. At-risk gamblers differed from all others on most variables, but social gamblers did not differ from all others on most variables. A comparison of at-risk and pathological gamblers found that the two groups differed at $p < .001$ on conduct problems, differed at $p < .01$ on gender, emotional problems, and substance use risk, and differed at $p < .05$ on family problems and anger control problems.

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