Risk Perceptions and Adolescent Gambling Behavior
Results From a National Study
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This study (which is part of a larger project on gambling behavior among Danish primary school children) focuses on risk-perception and irrational beliefs as well as gender differences in gambling behavior. It specifically explores the correlations between gambling frequency and the perception of skill and luck in gambling activities among Danish youngsters and whether irrational beliefs and the perception of skill and luck differentiate across groups of gambling severity.

**METHOD**
Participants included 2,223 students from the 6th, 7th, 8th, 9th and 10th grades ranging in age from 11 to 17 years. Self-completion questionnaires were administered to students during normal lessons by a member of the research team (a senior researcher or a research assistant). The questionnaire contained an adolescent gambling screen, SOSG-RA (Winters, Stinchfield & Fullerson 1993a, 1993b), and series of questions clustered in three major domains: (1) gambling behavior (types games played, gambling frequency, age of debut, gambling partners, gambling motives), (2) social network/family gambling (parent’s gambling behavior, friend’s gambling behavior) and (3) cognitive perceptions i.e. notions of skill vs luck in relation to gambling, risks involved in gambling relative to other activities such as smoking or drinking alcohol, and understanding of probabilities.

**RESULTS**

The overall prevalence rate of problem gambling was 1.29%, the rate of at-risk gambling was 4.5% while 94% reported no gambling problems. Boys were found to be more regular gamblers compared to girls. Thus, 5.7% of the boys reported to be gambling every day or several times a week while 2.6% of the girls reported gambling several times a week. However, slightly more boys than girls disagreed with the statement that gamblers usually lose (χ² = 23.6, df = 3, p = 0.000) and that frequent gambling may lead to addiction (χ² = 26.1, df = 3, p = 0.000). Thus, 12.5% of boys disagreed or strongly disagreed with the addiction-statement compared to 7.3% of the girls. With regard to losing money, more younger respondents than older respondents thought that gambling is usually related to losing money (χ² = 0.121, p = 0.003). Comparing responses across the three gambling groups, it was observed that significantly more problem gamblers than non-problem gamblers disagreed with the statement that gambling may lead to losing money (χ² = 0.204, p = 0.034). This correlation was not, however, observed on the addiction question. On this question, the majority from all three groups agreed or strongly agreed. In the entire sample, more problem gamblers than non-problem gamblers believed in their own gambling skills (Cramers V = 0.144, df = 3, p = 0.000) and that they one day will experience 'the big win' (χ² = 77.3, df = 2, p = 0.000). In total 38.5% of problem gamblers believed that they were more skilled gamblers than their peers while 16.2% of at-risk gamblers and 7.1% of the non-problem gamblers that believing their gambling skills were better than their peers. Some significant gender differences were observed. In total 14.7% of boys felt that they had better gambling skills than their peers whereas only 0.7% of the girls did (χ² = 172.9, df = 2, p = 0.000). There were also gender differences with regard to the belief about the ‘big win’. Significantly more boys (32.5%) than girls (17.3%) believed that one day they will experience 'the big win' (χ² = 38.2, df = 1, p = 0.000). There were no significant differences in the perception of one’s own gambling skills and the belief in the ‘big win’ across age groups. Respondents were also asked to assess the importance of skill vs luck with regard to a number of different games. These games were then categorised into two groups: A group of chance-based games (bingo, lotto, gaming machines, scratch card games, dice games, roulette and keno) and a group of games that require a degree of skill. As regards to chance-based games (χ² = 15.8, df = 2, p = 0.000) as well as games that require a degree of skill (χ² = 20.2, df = 8, p = 0.000), boys were more likely to think that skills are important compared to girls. However, with regard to chance-based games, a greater proportion of boys thought that luck is crucial whereas more girls than boys reported that both luck and skill plays an important role.

The majority of respondents in all three gambling groups thought that luck plays an important role with regard to the outcome of chance-based games. However, more problem gamblers and at-risk gamblers thought that skill plays an important role compared to non-problem gamblers. As regards to games that require a degree of skill, there was also a greater proportion of problem gamblers and at-risk gamblers, compared with non-problem gamblers who thought that skill is the most important factor, however this correlation was not statistically significant.

**DISCUSSION**

In terms of perceptions of luck versus skill some significant differences appeared across the three gambling groups. Thus, more at-risk gamblers and problem gamblers compared to non-problem gamblers believed that skill plays an important role in gambling. Perception of skill and luck involved in gambling thus seem to be contingent upon gambling frequency and the severity of gambling problems. The cross sectional nature of this study allows no causal inferences; however the findings might suggest that the level of gambling engagement affects the development of mistaken and faulty conceptions of skill and luck which in turn may lead to increased gambling involvement. Recent research among adult gamblers suggests that increased gambling frequency is positively correlated with irrational beliefs (Lund 2010). Longitudinal research is needed in order to clarify the causal relations between gambling frequency, preferred types of games and irrational beliefs among young gamblers.

**REFERENCES**

Lund, Ingeborg (2010). Irrational beliefs revisited; Exploring the role of gambling preferences in the development of misconceptions in gamblers. Addiction Research and Theory, 19, 43-46


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**PUBLICATIONS FROM THE PROJECT:**

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**Table 1. Perception of luck vs skill in chance-based games across gambling groups**

<table>
<thead>
<tr>
<th>Skill vs luck</th>
<th>Non-problem gamblers</th>
<th>At-risk gamblers</th>
<th>Problem gamblers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only or mostly luck N</td>
<td>962</td>
<td>45</td>
<td>1027</td>
<td></td>
</tr>
<tr>
<td>%</td>
<td>83.0</td>
<td>68.9</td>
<td>65.0</td>
<td>82.9</td>
</tr>
<tr>
<td>Both N</td>
<td>147</td>
<td>10</td>
<td>4</td>
<td>161</td>
</tr>
<tr>
<td>%</td>
<td>15.1</td>
<td>22.3</td>
<td>20.0</td>
<td>15.7</td>
</tr>
<tr>
<td>Only or mostly skill N</td>
<td>88</td>
<td>4</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>%</td>
<td>1.8</td>
<td>8.9</td>
<td>15.0</td>
<td>2.3</td>
</tr>
<tr>
<td>Total N</td>
<td>1050</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Note: Gamma test. Statistically significant (p<0.05), (γ= 0.404, p = 0.010).