Adolescent slot machines players: experiences, motivation and cognitive distortions

Neven Ricijaš, Ph.D.
Dora Dodig, M.A.
Valentina Kranželić, Ph.D.
Aleksandra Huić, Ph.D.

The 15th International Conference on Gambling & Risk Taking
Las Vegas, Nevada, USA; May 27 - 31, 2013
Social context

- Expansion of places registered for gambling
- Gambling is illegal for minors (< 18 years of age)
Social context

Statistics on December 31st 2011:

- 24 casinos
- 223 slot machine clubs
- 3,472 places registered for gambling

+ bars/coffee shops that have sports betting machines
+ bars/coffee shops that have slot machines
Project “Youth Gambling in Croatia”

I. **2010**: Gambling of High-Schools Students in the City of Zagreb

II. **2011**: Gambling of High-School Students in Croatian Urban Areas

III. **2012**: Gambling of Students at University of Zagreb

IV. **2013**: Gambling of High-School Students in Smaller Towns

V. **2012-2013**: Creation, Implementation and Evaluation of Youth Gambling Prevention Program “Who Really Wins?”
National Study

“Gambling of High-School Students in Croatian Urban Areas”

Supported by:
University of Zagreb
Ministry of Science, Education and Sport
National Teacher Training Agency
Croatian Lottery
N=1,952 high school students
from March to May, 2011
88 classes, 24 schools
representative sample
Life-time prevalence
Gambled at least once in their lives (N=1.952)

83% Gambled at least once in lifetime
17% Never gambled
## Frequency of REGULAR gambling

### >= 1x per week

<table>
<thead>
<tr>
<th>Activity</th>
<th>Whole sample (N=1.952)</th>
<th>Sample &lt;=17 years (N=1.457)</th>
<th>Boys in sample (N=915)</th>
<th>Boys &lt;=17 years (N=663)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sports betting</td>
<td>19,0%</td>
<td>18,2%</td>
<td>37,4%</td>
<td>36,6%</td>
</tr>
<tr>
<td>Slot machines</td>
<td>6,2%</td>
<td>5,8%</td>
<td>11,8%</td>
<td>11,0%</td>
</tr>
<tr>
<td>Virtual races</td>
<td>6,1%</td>
<td>6,2%</td>
<td>11,7%</td>
<td>11,8%</td>
</tr>
</tbody>
</table>
Aims of this research

1. to explore how often high-schools students play slot machines
2. to explore how often adolescent slot machine players play other games of chance
3. to explore their main motivation and beliefs related with gambling
4. to explore their gambling experiences and behavioral patterns
Sample

N = 1.952

played slot machines at least once in their lifetime

N = 491
(25.15%)

1x per week or more often

REGULAR
N = 123
25.9%

OCCASIONAL
N = 368
74.9%
Sample - cities

\[ \chi^2 = 3.021; \ p > 0.050 \]
Sample - age & gender

M = 16.76
SD = 1.197

71.30% MALE
28.70% FEMALE
Sample - frequency & gender

χ² = 24.09
p < .001

<table>
<thead>
<tr>
<th>Frequency</th>
<th>MALE</th>
<th>FEMALES</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCCASIONALLY</td>
<td>241</td>
<td>127</td>
</tr>
<tr>
<td>REGULARLY</td>
<td>109</td>
<td>17</td>
</tr>
<tr>
<td>Instrument</td>
<td>Construct</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Gambling Activity Scale</strong></td>
<td>Intensity of Gambling on 15 Games of Chance (yes or no; if yes - how often?)</td>
<td></td>
</tr>
<tr>
<td>(Ricijaš, Dodig, Huić, Kranželić, 2011)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Canadian Adolescent Gambling Inventory - CAGI</strong></td>
<td>Gambling Problem Severity Subscale (GPSS) Score</td>
<td></td>
</tr>
<tr>
<td>(Tremblay, Wiebe, Stinchfield &amp; Wynne, 2010)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Motivation for Gambling Scale</strong></td>
<td>10 Different Motives for Gambling</td>
<td></td>
</tr>
<tr>
<td>(Ricijaš, Dodig, Huić, Kranželić, 2011)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gambling Cognitive Distortions Scale</strong></td>
<td>Cognitive distortions:</td>
<td></td>
</tr>
<tr>
<td>(Ricijaš, Dodig, Huić, Kranželić, 2011)</td>
<td>1. Illusion of control</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Erroneous beliefs/Incorrect understanding of probability</td>
<td></td>
</tr>
<tr>
<td><strong>Specific questions</strong> about gambling behavior and experiences</td>
<td>▪ won a large sum of money?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ when win, encouraged to continue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ behavior patterns</td>
<td></td>
</tr>
</tbody>
</table>
RESULTS
## Intensity of playing slot machines & other games of chance

<table>
<thead>
<tr>
<th>Other games of chance</th>
<th>r</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sports betting</td>
<td>.430</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Lottery</td>
<td>.273</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Scratch tickets</td>
<td>.333</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Electronic roulette</td>
<td>.576</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Card games in casino</td>
<td>.499</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Virtual races betting</td>
<td>.520</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>
Canadian Adolescent Gambling Inventory (CAGI)
Gambling Problem Severity Subscale (GPSS)

“RED LIGHT”
High severity
(6+ points)

“YELLOW LIGHT”
Low-to-moderate severity
(2-5 points)

“GREEN LIGHT”
No problem
(0-1 points)
NATIONAL PREVALENCE

N=1,952

12.3% “RED LIGHT” High severity

16.9% “YELLOW LIGHT” Low-to-moderate severity

70.9% “GREEN LIGHT” No problem

SLOT MACHINE PLAYERS

N=491

32.8% “RED LIGHT” High severity

27.5% “YELLOW LIGHT” Low-to-moderate severity

32.8% “GREEN LIGHT” No problem
GPSS & intensity of playing slot machines

\[ X^2 = 66.653; \ p < 0.001 \]
Motivation for gambling

- **For fun & excitement**: Regular (3), Occasional (3)
  - t = 0.126; p > 0.05

- **To relax**: Regular (1), Occasional (1.5)
  - t = 5.389; p < 0.001

- **To feel better**: Regular (2), Occasional (2.5)
  - t = 3.283; p < 0.001

- **To earn money**: Regular (3), Occasional (2.5)
  - t = 6.241; p < 0.001

- **To be a better gambler**: Regular (1.5), Occasional (2)
  - t = 4.326; p < 0.001
Cognitive distortions

- Illusion of Control
- Erroneous Beliefs/Incorrect Understanding of Probability

Statistical significance:
- $t=2.417$, $p<.050$
Experiences while gambling

How often have you won a large sum of money?

- **OCCASIONAL**
  - NEVER: 34.30%
  - ONCE: 18.80%
  - FEW TIMES: 39.00%
  - MANY TIMES: 7.90%

- **REGULAR**
  - NEVER: 0.50%
  - ONCE: 30%
  - FEW TIMES: 52.80%
  - MANY TIMES: 33.30%
# Behavioral patterns

<table>
<thead>
<tr>
<th>How often have you...</th>
<th>OCCASIONAL</th>
<th>REGULAR</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>...gone back another day to try to win back money?</td>
<td>1.50</td>
<td>0.83</td>
<td>2.25</td>
</tr>
<tr>
<td>...gambled with more money than you intended to?</td>
<td>1.51</td>
<td>0.74</td>
<td>2.41</td>
</tr>
<tr>
<td>...sold your personal property to have money for gambling/betting?</td>
<td>1.07</td>
<td>0.33</td>
<td>1.47</td>
</tr>
<tr>
<td>...stolen money in order to gamble or to pay off debts?</td>
<td>1.06</td>
<td>0.29</td>
<td>1.44</td>
</tr>
</tbody>
</table>
Winning money while gambling encourages me to continue gambling.

- Occasional = **25.2%** say its true
- Regular = **46.4%** say its true
Conclusion - profile

- Male
- Plays other games of chance more frequently
- Has won a large sum of money gambling (subjective perception!)
- Shows risk behavioral patterns related to gambling:
  - going back
  - more money
  - selling property
  - stealing money
- Has developed psychosocial consequences regarding to gambling
- Has multiple motivation, but especially motivated by earning money, to solve negative emotions and to become a better gambler
- Has more illusion of control in gambling activities
Conclusion - what needs to be done

Further research

Improving policy (accessibility)

Implementation of interventions
Thank you for your attention! 😊

neven.ricijas@gmail.com