CREATING EVIDENCE-BASED INTERVENTIONS FOR YOUTH GAMBLING PROBLEMS
-Croatian experience-

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Content

PRINCIPLES & PROCESS OF CREATING INTERVENTIONS

SOCIAL CONTEXT AND GAMBLING INDUSTRY

RESEARCH & RESULTS

CHALLENGES
PREVENTION SCIENCE STANDARDS
(+ structured psychosocial treatment interventions)

- socio-culturally sensitive
- right setting (school)
- based on theory and research
- developmentally matched (age)
- comprehensive (knowledge & skills)
- wide range of topics
- different teaching methods
- adequate length
- positive relationships
- scientifically evaluated

Williams, 2002
Davis, 2003
Nation et. al., 2003
Najavits, Grymala, George, 2003

Ferland, Ladouceur, Vitaro, 2005
Derevensky et. al. 2006
Williams, West, Simson, 2006
St-Pierre, Derevensky, 2016
Gambling Market Models
(modified/shortened from Arendts, 2007; Lovrinčević, Mikulić i Orlović, 2015)

- Regulation – Industry – Market
- Closed - Conservative
- Open - Liberal

Focused on...
- Risk
- Profit

Position of the citizen/player
- Others decide for him
- Makes his own choice
LEGAL REGULATION OF GAMBLING IN CROATIA
LAW ON GAMES OF CHANCE*

Lottery Games
- Lotto 6/46
- Lotto 7/39
- EuroJackpot
- Bingo
- Scratch Card
- Etc.

Betting Games
- Sports Betting
- Betting on Events
- Betting on Lottery Numbers
- Etc.

Games on „Automats”
- Slot Machines
- Electronic Roulette
- Electronic Card Games
- Etc.

Casino Games
- Roulette
- Card Games
- Dice Games
- Etc.

- State has monopoly only over Lottery Games
- All games available online if an operator has land-based venues

* Official Gazette 87/09, 35/13, 41/14, 143/14
Official number of land-based gambling venues in Croatia

- 12-15 time more gambling venues
- On-line operators who are not licensed in Croatia (illegal on-line operators)
- Very liberal market

* National Croatian Bureau of Statistics, 2010
** Ministry of Finance official data, 2016
Basic elements of social responsibility

- **ACCESSIBILITY**
  - all games prohibited for minors (<18 years)

- **AVAILABILITY – geographical restrictions**
  - Lottery Games – no restrictions
  - Sports Betting venues – 200m from regular schools
  - Automat Clubs – 500m from each other
  - Casinos – 500m from each other
    - with the exception of 5* hotels
Basic elements of social responsibility

- ADVERTISING
  - prohibited only on TV-shows and magazines specialized for children and youth

- INFORMATIVE ELEMENTS
  - flyers about the risks of gambling
  - free 0800 help line

- ID CONTROL
  - Casino – at the entrance
  - all others – eventually when collecting wins
Regulation of on-line gambling

- all games available on line
- license is given only to operators who have land-based venues (licensed)

- at registration – Ministry of Finance is checking compatibility of name with personal VAT number (but does not additionally inform the player)
Ice-cream for adults (!?!?)
What IS the scope of the social problem?

- Uncontrolled expansion of gambling venues – especially sports betting (in residential areas, close to schools etc.)
- No adequate regulation (especially accessibility and availability)
- No adequate legal rules and/or guidelines for advertising
- Loose understanding of legal rules (<18 etc.)
- Presence of illegal operators – not registered in Croatia and without minimum authentication elements
- Lack of specific prevention and/or treatment interventions for young people
RESEARCH AS FOUNDATION FOR EVIDENCE-BASED INTERVENTIONS

(2010-2018)
- National **Youth** Gambling Prevalence Study (N=2,703)
- University **Students’** Gambling
- **Parental** Perception of Youth Gambling
- **Mental-Health Professionals’** Perception of Youth Gambling
- **Evaluation** of Gambling Anonymous Treatment
- **Evaluation** of Daily Gambling Treatment in Hospital

**Interventions**

- Youth Gambling **Prevention Program** for High-Schools
- Psychosocial **Treatment** for Prisons and Probation
- Psychosocial **Treatment** for Counseling Clinics
- Psychosocial **Treatment** for Social Welfare System
- **Prevention** of Behavioral Addiction Problems in Elementary Schools
Pilot research on youth gambling among high-school students in the City of Zagreb (N=261)

boys > girls
NATIONAL YOUTH GAMBLING PREVALENCE STUDY

N=2,703 – representative sample of adolescents
81.6% gambled at least once in lifetime (lifetime prevalence)
most frequent = sports betting
  ➞ around 20% high-school students regularly betting
  ➞ around 35% male adolescents regularly betting
  ➞ no differences with regards to age and legal possibilities

CAGI - GPSS subscale results
  ➡ 12.9% high severity of psychosocial consequences
  ➡ 17.3% low to moderate
  ➡ 69.8% no problems
Youth gambling in Croatia – frequency of gambling and the occurrence of problem gambling

Neven Ricijas
Dora Dodig Hundric
University of Zagreb, Faculty of Education and Rehabilitation Sciences, Department of Behavioral Disorders

Aleksandra Huic
University of Zagreb, Faculty of Humanities and Social Sciences, Department of Psychology

Valentina Kranzelic
University of Zagreb, Faculty of Education and Rehabilitation Sciences, Department of Behavioral Disorders

Abstract
The main aim of this study was to explore the frequency of gambling and gambling-related problems among Croatian high school students. The specific objectives have been to explore gender differences, and differences in the frequency and severity of gambling problems regarding grade/age and type of school program. The study included n=2,702 high school students from all for grades and all three types of high school programs (3- and 4-year vocational/professional schools, and grammar schools) from 7 cities (Zagreb, Osijek, Rijeka, Split, Vinkovci, Slavonski Brod and Koprivnica) with equal representation of boys (n=1,330, 49.2%) and girls (n=1,372, 50.8%). The respondents' mean age was Mage = 16.51 (SDage=1.17).
### Youth gambling - comparison

<table>
<thead>
<tr>
<th>CANADA</th>
<th>CROATIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>45-67% past-year &amp; lifetime prevalence</td>
<td>45-83% past-year &amp; lifetime prevalence</td>
</tr>
<tr>
<td>2.7% regularly sports betting</td>
<td>20% regularly sports betting</td>
</tr>
<tr>
<td>1.1% regularly play VLTs</td>
<td>12% regularly play slot machines</td>
</tr>
<tr>
<td>boys &gt; girls</td>
<td>boys &gt; girls</td>
</tr>
<tr>
<td></td>
<td>greater availability and accessibility</td>
</tr>
<tr>
<td><strong>CAGI - GPSS:</strong></td>
<td><strong>CAGI - GPSS:</strong></td>
</tr>
<tr>
<td>🟥 1.3% red light</td>
<td>🟥 12.9% red light</td>
</tr>
<tr>
<td>🟢 5.5% yellow light</td>
<td>🟢 17.3% yellow light</td>
</tr>
<tr>
<td>🟢 93.2% green light</td>
<td>🟢 69.8% green light</td>
</tr>
</tbody>
</table>

Elton-Marshall, Leatherdale & Turner (2016); Tremblay, J., Stinchfield, R., Wiebe, J. & Wynne (2011); Gupta and Derevensky (2002); Ricijaš, Dodig Hundrić, Huić, Kranželić (2016); Puharić et al. (2016)
⇒ STRONGEST PREDICTORS OF REGULAR SPORTS BETTING:

⇒ experience of **winning** large sum of money (subjective perception)

⇒ subjective **stimulus** after winning

⇒ motivation for **profit** and **earnings**, handling **unpleasant emotions** and to **train** betting skills

⇒ more gambling related **cognitive distortions**
21% of fathers regularly bet on sports results.

45.5% of male adolescents report that their parents know about their occasional gambling/betting activities.

23% of male adolescents mention that they have placed bets together with their parents.
Developing youth gambling prevention program „Who really wins?”
**INTERVENTIONS:**
- Dissemination and national implementation of the youth gambling prevention program “Who really wins?”
- The development of Gambling Treatment Program for:
  - Justice System - Prison & Probation – Adults
  - Social Welfare System – Counseling and Institutional Treatment

**OTHER RESEARCH (national) STUDIES:**
1. Parental perception of youth gambling (with McGill Univ.)
2. Mental-health professionals’ perception of youth gambling (with McGill Univ.)
PARENTAL PERCEPTION OF YOUTH GAMBLING

- Questionnaire adapted from McGill study (Derevensky et al.)
- Two largest Croatian Cities: Zagreb & Split
- High-school students from 3 types of schools & their parents

CHILDREN
N=1060

GAMBLING
RISKY BEHAVIOURS
AVAILABILITY ACCESSIBILITY

MOTHERS
N=770

FATHERS
N=447

MATCHED PAIRS
N=447

CHILDREN'S SELF-ASSESSMENT
PARENTS' ASSESSMENT
Frequency of gambling - Girls vs. Parents

- **Lotto**
  - Daughter: 0.34
  - Parent: 0.17

- **Scratch cards**
  - Daughter: 0.59
  - Parent: 0.25

- **Sports betting**
  - Daughter: 0.11
  - Parent: 0.08

- **Slots**
  - Daughter: 0.12
  - Parent: 0.02

- **Casino**
  - Daughter: 0.01
  - Parent: 0.0

- **Card games**
  - Daughter: 0.31
  - Parent: 0.03

The Mann-Whitney U tests show:
- **Lotto**: U=17581,000, p=0.012, r=0.13
- **Scratch cards**: U=14761,000, p=0.000, r=0.27
- **Sports betting**: U=19149,000, p=0.459, r=0.15
- **Slots**: U=18443,000, p=0.003, r=0.15
- **Casino**: U=19400,000, p=0.165
- **Card games**: U=16598,000, p=0.000, r=0.26
Frequency of gambling - Boys vs. Parents

MW-U = 19669,5
p = .000
r = .27

MW-U = 21095,5
p = .000
r = .26

MW-U = 20939,5
p = .000
r = .26

MW-U = 20221,5
p = .000
r = .33

MW-U = 24317,5
p = .000
r = .23

MW-U = 19076,5
p = .000
r = .41

Son  Parent

LOTT0

SCRATCH CARDS

SPORTS BETTING

SLOTS

CASINO

CARD GAMES
GPSS – Gambling related psychosocial problems

YOUTH
- High severity: 7.8%
- Low to moderate severity: 13.0%
- No problem: 79.2%

PARENTS
- High severity: 1.8%
- Low to moderate severity: 5.5%
- No problem: 92.7%

χ² = 23.896; p < .001
Mental Health Professionals Perception of Youth Gambling – Preliminary results

- N=586 (male=9.04%; female=90.96%)
- all 21 counties in the Republic of Croatia
- Educational System
- Social Welfare System
- Justice System
- Health System
- NGO
# How accessible are gambling activities to minors?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Cannot access</th>
<th>Very difficult</th>
<th>Difficult</th>
<th>Easy</th>
<th>Very easy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lottery Games</td>
<td>1.89%</td>
<td>4.61%</td>
<td>7.76%</td>
<td>19.71%</td>
<td>66.04%</td>
</tr>
<tr>
<td>Sports Betting</td>
<td>1.26%</td>
<td>1.47%</td>
<td>6.29%</td>
<td>20.13%</td>
<td>70.86%</td>
</tr>
<tr>
<td>Slot Machines</td>
<td>0.84%</td>
<td>2.31%</td>
<td>8.81%</td>
<td>23.69%</td>
<td>64.36%</td>
</tr>
<tr>
<td>Casino Games</td>
<td>9.22%</td>
<td>27.88%</td>
<td>31.24%</td>
<td>21.17%</td>
<td>10.48%</td>
</tr>
<tr>
<td>Sports Betting at Coffee Bars</td>
<td>0.42%</td>
<td>1.26%</td>
<td>4.19%</td>
<td>17.61%</td>
<td>76.52%</td>
</tr>
<tr>
<td>Online Gambling</td>
<td>0.42%</td>
<td>0.63%</td>
<td>1.47%</td>
<td>9.43%</td>
<td>88.05%</td>
</tr>
</tbody>
</table>
How important is it for your work place to have competencies for youth problem gambling interventions?

- Not important: 3.90%
- Moderately important: 24.12%
- Important: 33.40%
- Very important: 38.59%
How competent do you perceive yourself for providing youth problem gambling interventions?

- Not at all competent: 30.27%
- Moderately competent: 46.19%
- Competent: 21.52%
- Very competent: 2.02%
During your university education, did you have lectures/curricula that provided you information about youth gambling and interventions?

- YES: 12%
- NO: 88%
Youth gambling prevention program
“WHO REALLY WINS?”
<table>
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<tr>
<th>Team member</th>
<th>Expertise</th>
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<tbody>
<tr>
<td>1. Prof. Neven Ricijaš, PhD</td>
<td>Adolescents risk behavior and gambling + treatment interventions</td>
</tr>
<tr>
<td>2. Prof. Dora Dodig Hundrić, PhD</td>
<td>Prevention science + preventive interventions in educational setting</td>
</tr>
<tr>
<td>3. Prof. Valentina Kranželić, PhD</td>
<td>Social &amp; cognitive psychology</td>
</tr>
<tr>
<td>4. Prof. Aleksandra Huić, PhD</td>
<td>Mathematician</td>
</tr>
<tr>
<td>5. Toni Milun</td>
<td>Treatment counselor in daily clinic for gambling disorder</td>
</tr>
<tr>
<td>6. Ana Rakić</td>
<td>Counselor in high-school</td>
</tr>
<tr>
<td>7. Sanja Radić Bursać</td>
<td></td>
</tr>
<tr>
<td>Prevention science standards (+ structured psychosocial treatment interventions)</td>
<td></td>
</tr>
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- Williams, West, Simson, 2006
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General Aims of the Program

- Prevention of youth gambling (minors)
- Development of ‘right’ attitudes towards games of chance
- Development of personally responsible gambling in the future
HIGH-SCHOOL STUDENTS
- 9 weeks
- 9 x 45’
- active participation
- interactive

PARENTS
- 2 hours of interactive lectures
- informative materials

SCHOOL STAFF
- 2 hours of interactive lectures
- informative materials
<table>
<thead>
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<th>Workshop</th>
<th>Topic</th>
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<tr>
<td>0. meeting</td>
<td>Informative-motivational meeting + PRE-TEST</td>
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<tr>
<td>1. workshop</td>
<td>Introductory workshop&lt;br&gt;&lt;strong&gt;WHAT DO WE NEED TO KNOW ABOUT THE PROGRAM?&lt;/strong&gt;</td>
</tr>
<tr>
<td>2. workshop</td>
<td>Characteristics and consequences of some risk behaviours&lt;br&gt;&lt;strong&gt;WHAT IS THE OTHER SIDE OF THE MEDAL?&lt;/strong&gt;</td>
</tr>
<tr>
<td>3. workshop</td>
<td>Myths and facts about gambling&lt;br&gt;&lt;strong&gt;WHAT TO DO WHEN THE DICE IS THROWN?&lt;/strong&gt;</td>
</tr>
<tr>
<td>4. workshop</td>
<td>Chances and probability&lt;br&gt;&lt;strong&gt;WHAT ARE MY CHANCES?&lt;/strong&gt;</td>
</tr>
<tr>
<td>5. workshop</td>
<td>Problem solving&lt;br&gt;&lt;strong&gt;I HAVE A PROBLEM, WHAT IS MY CHOICE?&lt;/strong&gt;</td>
</tr>
<tr>
<td>6. workshop</td>
<td>Resisting peer pressure&lt;br&gt;&lt;strong&gt;HOW TO BE A PART OF THE GROUP AND STAY MYSELF?&lt;/strong&gt;</td>
</tr>
<tr>
<td>7. workshop</td>
<td>Reflection and summing up&lt;br&gt;&lt;strong&gt;IN THE END - WHO REALLY WINS?&lt;/strong&gt;</td>
</tr>
<tr>
<td>8. workshop</td>
<td>Final workshop&lt;br&gt;&lt;strong&gt;DID WE LEARN IT ALL?&lt;/strong&gt;</td>
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- Williams, West, Simson, 2005
- St-Pierre, Derevensky, 2016
EVALUATION DESIGN
Who Really Wins? Efficacy of a Croatian Youth Gambling Prevention Program

Abstract This paper reports on the development and pilot evaluation of a Croatian school-based youth gambling prevention program “Who really wins?”. The program is aimed at minimizing risk and enhancing protective factors related to youth gambling. A short-term evaluation of the program was conducted with a sample of 190 first and second year high-school students (67.6% boys, aged 14–17 years; average age 15.61). An experimental design with two groups (Training vs. No Training) and two measurement sessions (pre-test and post-test sessions) was used to evaluate change in problem gambling awareness, cognitive distortions, knowledge of the nature of random events as well as in social skills. Results showed significant changes in the post-test sessions, which can be attributed to changes in the Training group. We observed a decrease in risk factors, namely better...
EVALUATION

OF THE EFFECT

T1 (pre-test; before)
T2 (post-test; after)

(1) Control group
(2) Intervention group

OF THE PROCESS

Participants’ satisfaction and personal gain

Evaluation of implementation
Evaluation of effect
Evaluation research plan

- pretest – posttest plan with control group

2 groups
- intervention (passed the program)
- control (didn’t pass the program)

2 time points
- before the program
- after the program

- information about short-term evaluation
Evaluation Results

Effects can be attributed to the Program

I = C

6 weeks
Evaluation Results

- knowledge about games
- problem solving skills
- resisting peer pressure skills
- general self-efficacy
- cognitive distortions

\[ I > C \]

\[ I < C \]

Intervention group

Control group

Implementation of the Program

1

2
Training for the implementation of the Program on the national level
Dissemination of the Program on a national level

- **Length:**
  - 21 hour training = 3 days

- **School - training pair/team**
  - high-school counselors + teacher (training team)

- **Methods:**
  - lectures (theory)
  - workshops
  - interactive discussion
  - role-playing

- **Educational package**
  - Manual for trainers
  - Workbooks for students
Implementation 2016-2018

- 5 educational cycles
- ≈150 participants
- ≈ 75 high-schools
- >1,200 students

- financial and organizational support of major stakeholders
- very positive feedback and evaluations
CHALLENGES OF PROVIDING AND DEVELOPING PSYCHOSOCIAL INTERVENTIONS
Intervention spectrum

- General population
- Youth at risk
- Youth with gambling related problems
New activities – development of structured group psychosocial treatment interventions

<table>
<thead>
<tr>
<th>ADULTS – JUSTICE SYSTEM</th>
<th>YOUTH – CITY COUNSELING CLINIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Ministry of Justice</td>
<td>▪ City of Zagreb youth counseling unit</td>
</tr>
<tr>
<td>▪ for prison system and probation</td>
<td>▪ for adolescents who developed gambling related psychosocial problems</td>
</tr>
<tr>
<td>▪ has 18 workshops</td>
<td>▪ Program in development</td>
</tr>
<tr>
<td>▪ 1 per week = 90 minutes</td>
<td>▪ mid 2019 – pilot implementation</td>
</tr>
<tr>
<td>▪ CBT, RT, MI</td>
<td></td>
</tr>
<tr>
<td>▪ knowledge and skills</td>
<td></td>
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<tr>
<td>▪ understanding behavior, needs, consequences, gambling activities and market, cognitive distortions, decision making process, motivation, relaps, individual change plan etc.</td>
<td></td>
</tr>
<tr>
<td>▪ January 2019 – pilot implementation</td>
<td></td>
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</tbody>
</table>
Thank you for your attention! 😊

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