

PREVENTION OF PROBLEM GAMBLING: A COMPREHENSIVE REVIEW OF THE EVIDENCE & RECOMMENDED BEST PRACTICES

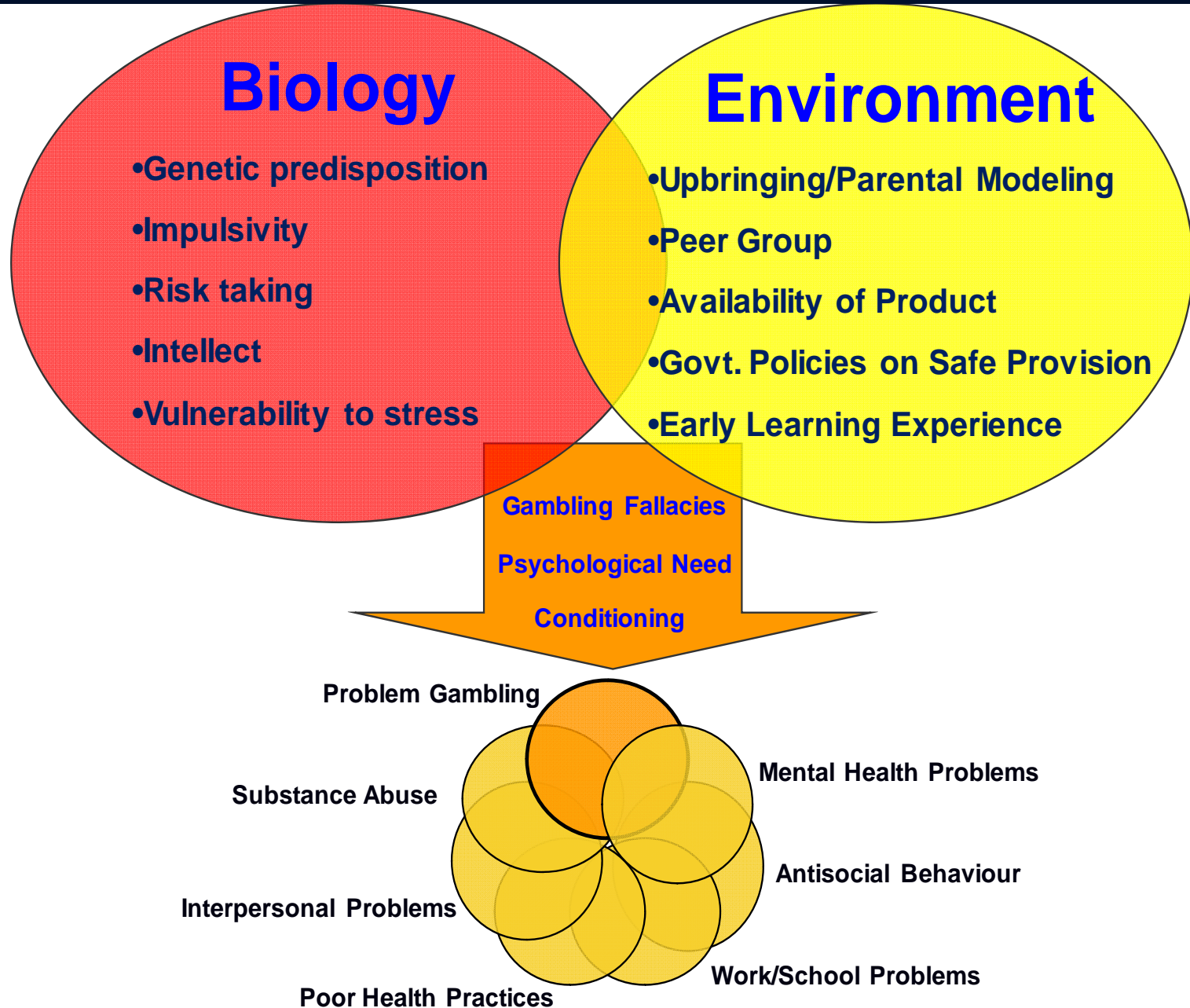
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October 21, 2008*



Biopsychosocial Model of Addiction



EDUCATIONAL INITIATIVES



'Upstream' Interventions

- e.g., strengthening families (e.g., improving parenting skills); having children exposed to well-socialized peers; provision of good schooling
 - Untested for Problem Gambling
 - However, consistently identified as the most powerful way of reducing adolescent problem behaviour (with beneficial effects in adulthood)



Information/Awareness Campaigns

- e.g., 'know your limits'; 'gamble responsibly'; true odds; dispelling fallacies; help lines; signs of PG
- on gambling product; posters at venue; radio/TV; websites; presentations at schools
- Limited research with mixed results indicating these messages can temporarily improve knowledge and change attitudes
- However, a) most people don't attend to them and b) actual effect on gambling behaviour is unknown.
- In other prevention fields, *behavioural change* is uncommon, and only occurs if info is personally relevant, behaviour easy to change, and consequences of not changing are significant (e.g., cholesterol, sodium, birth control pills, HIV testing)



School-Based Statistical Instruction

- e.g., teaching the expected value, odds and mathematical principles underlying gambling (and either directly or indirectly dispelling gambling fallacies)
- Several studies, with mixed results
- Fairly reliable impacts on knowledge and gambling fallacies, inconsistent impacts on subsequent gambling behaviour



Comprehensive School-Based Prevention Programs

- “Don’t Bet On It” in S.Australia; “Gambling: Minimising Health Risks” in Queensland; “Facing the Odds” in Louisiana;; “Kids Don’t Gamble...Wanna Bet” in Minnesota; “Youth Making Choices” in Ontario; “Gambling: A Stacked Deck” in Alberta
- statistical knowledge; gambling fallacies; addictive nature of gambling; building self-esteem, social problem-solving to avoid high risk activities; peer resistance training; etc.
- Only 4 empirical studies: Reliable impacts on knowledge and gambling fallacies, inconsistent impacts on behaviour
- School-based prevention programs in other fields (smoking, drug use, etc.) have found similar results



On-Site Information/Counselling Centres (RGICs)

- Info about gambling/PG & referral to, or actual provision of counseling
- Since 2002; Australia, Canada, S. Korea
- No evaluation of effectiveness, although some info concerning utilization rates: 8000 for Manitoba 2003-2006; 4600 for Ontario in 1.5 yrs
- However, 10,000 people visit MB venues every day and 118,000 per day in Ontario
- Has not resulted in higher rates of treatment provision



POLICY INITIATIVES

*Restrictions on the General
Availability of Gambling*



Restricting the Number of Gambling Venues

- Positive correlation between local PG rate and proximity to gambling venues in U.S., N.Z., & Canada
- Significant correlation between Canadian provincial PG prevalence rates in 2002 and casinos/racinos per capita

Casino/Racinos	$r = .74^*$
Horse Racing Venues	$r = .56$
Bingo Halls	$r = .53$
EGM Locations	$r = -.02$
Lottery Outlets	$r = -.50$

- Opening of new venues has also generally been associated with subsequent increases in rates of PG



Restricting More Harmful Types of Gambling

- Strong relationship between EGMs per capita and PG rates both between countries and within countries:
 - e.g., Australia has highest EGM ratio (~1 per 99), and also one of the world's highest rates of PG
 - Significant correlation between Canadian provincial PG rates and EGM's per capita: $r = .68$
- Modest EGM reductions do not produce much effect on PG rates (e.g., Victoria; Nova Scotia)
- However, total EGM elimination in South Dakota (1994) and South Carolina (2000) reduced PG. Recent bans in North Carolina, Trinidad & Tobago, Latvia, & Portugal will provide more data.



Limiting Gambling Opportunities to Gambling Venues

- Theoretically sensible, but lacks empirical support
 - In Canada, there is no relationship between # EGM locations per capita and provincial PG rates ($r = -.01$).
 - For the 5 U.S. states that allow EGM's outside gambling venues, 2 have above average PG rates (Nevada, Louisiana), 2 have below average (Montana, Oregon), and 1 has average (West Virginia)



Restricting the Location of Gambling Venues

- Individual vulnerability is one of the strongest predictors of problem gambling, which is part of the reason that historically, casinos in Europe & U.S. were placed in tourist destinations away from urban centres and poorer areas (still largely the case in Asia & Africa)
 - Worldwide, PG is more often found in poorer neighborhoods (although 'poverty' may not be the relevant correlate)
 - In Canada, provincial PG prevalence rates are strongly correlated with the proportion of the provincial population with Aboriginal ancestry ($r = .93^*$) as well as provincial rates of alcohol dependence ($r = .74^*$).



Limiting Gambling Venue Hours

- Common policy in some countries
- Has good support in the alcohol policy field
- Reduction in hours in jurisdictions that have done this (i.e., Nova Scotia, Australia) had minor effects probably because the magnitude of the reduction was small



POLICY INITIATIVES

*Restrictions on Who can
Gamble*



Prohibition of Youth Gambling

- Interesting to note that despite almost worldwide underage prohibition:
 - underage youth may still have significant rates of PG
 - countries with permissive attitudes toward youth gambling (U.K., Nordic countries), have lower rates of adult PG compared to other countries
- Could early exposure have beneficial effects?
- Important lessons from the alcohol field (China, southern Europe, Israel vs. France & Aboriginal populations)



Restricting Venue Entry to Non-Residents

e.g. France, Bahamas, Malaysia, Vietnam, Nepal, Papua New Guinea, Australia (online), S. Korea (1 venue)

➤ Theoretically sound, but no evidence



Restricting Venue Entry to Higher Socioeconomic Groups

- e.g. dress codes (Europe); income test (Panama; Singapore); significant entrance fees (Papua New Guinea)
- Effectiveness unknown, although income is a relatively weak predictor of PG status in western countries



POLICY INITIATIVES

*Restrictions on How
Gambling is Provided*



Employee PG Awareness Training

- Began in Holland in late 80s, now common
- The few 'satisfaction' or 'knowledge' evaluations have been positive
- However, in alcohol field, training of alcohol servers has had mixed behavioural effects due to the conflict with profits, lack of enforcement, and personal drinking habits which are inconsistent with the policy



Modifying EGM Parameters

- Speed; Near misses; # play lines; Bill acceptors; Bet size; Maximum win; Interactive features; Pop-up messages; Clock; Mandatory cash out; Privacy; \$ versus credits; Time/spending limits ('smart cards')
- Research shows some utility for almost all of these (except clock, mandatory cash out, privacy, \$ versus credits).
- However, in all cases, the magnitude of the effect is small
- Somewhat reminiscent of attempts to minimize the harm of tobacco by adding filters or introducing 'low tar' cigarettes (i.e., these will always be high risk devices)



Restricting Access to Money

- House credit banned throughout Europe, Australia, Canada (except ONT); U.S. only country where common
- ATMs typically permitted at gambling venues (c.f., South Africa); withdrawal limits in some places
- No empirical research investigating impacts of monetary restriction
- However, theoretically sensible, as ATM use is much higher for PGs, and PGs often report that restricting ATM availability would be quite helpful



Restrictions on Concurrent use of Alcohol & Tobacco

- Free and/or low cost alcohol common in U.S., eastern Europe, and some Australian states
- Smoking most commonly permitted in Aboriginal casinos and non-western countries
- Very strong association with PG, thus, restrictions may serve as a strong preventative measure
- Evidence of this indirectly seen in significant reduction in gambling revenue occurring in jurisdictions that instituted smoking bans
- Puzzle concerns the mechanism by which this revenue has recovered



Restricting Advertising and Promotional Activities

Makes theoretical sense considering that:

- PGs report that advertising is a common trigger to gamble
- exposure to alcohol + tobacco ads promotes subsequent youth involvement
- Anti-alcohol and anti-tobacco advertising does not counter the above effect
- Prohibiting misleading advertising also important



Gambling Venue Design

- ‘Vegas-style’ design believed to encourage gambling both by venue developers and by gamblers
 - Empirically, there is some support for this contention
 - However, even if true, it is not a strong effect, as EGM revenues tend to be fairly similar regardless of where they are located (convenience stores, casinos, restaurants, bars, hotels)



Increasing the Cost of Gambling

- Effective policy for preventing alcohol & tobacco use and abuse
- However, unclear whether this would be effective for gambling, as little relationship between 'expected return' and gambling game preference



Independence Between Gambling Regulator and Provider

- Conflict of interest exists when provider and regulator part of the same organization
- *Theoretically*, this conflict is more likely to impede effective regulation and implementation of policies that interfere with revenue generation.
- However, in practice, responsible gambling measures are often more common in such jurisdictions with this conflict (e.g., Canada vs U.S.).



SUMMARY

- Large array of initiatives exist, most with very little direct empirical evidence about effectiveness and very few with behavioural measures of effectiveness.
- However:
 - Some evidence on most of these initiatives
 - Vast literature in other prevention fields to guide PG prevention efforts.
 - Biopsychosocial model of addiction provides important direction
 - Need to make educated guesses about the most promising approaches now



SUMMARY

- Most commonly implemented measures tend to be least effective ones (e.g., awareness campaigns, employee training, EGM modifications)
- Furthermore, when potentially more effective measures are implemented (e.g., reduced EGMs, reduced hours), reductions usually too minor to have major effect
- Unrealistic desire to implement effective prevention policies that do not inconvenience non-problem gamblers or reduce revenues



BEST PRACTICE #1:

**Recognize that Effective PG
Prevention will Likely Require
Some Inconvenience to
Nonproblem Gamblers and Some
Loss of Revenue**



BEST PRACTICE #2:

Use a Large Array of Educational and Policy Initiatives

- Almost nothing that is not helpful to some extent.
- Conversely, no single measure has great ability to prevent problems.
- External Controls (policy) are just as important and effective as Internal Knowledge (education).



BEST PRACTICE #3:

Coordinate these Multiple Initiatives

- i.e., offer these initiatives simultaneously, rather than sequentially, and make sure the messages do not conflict.
- A 'shotgun' blast is only effective if every pellet is directed at the same target at the same time.
- Each overlapping initiative reinforces the others, creating a synergy beyond what occurs with individual efforts.



BEST PRACTICE #4:

Decrease the General Availability of Gambling

- Limit or reduce the number of Casinos/EGM venues.
- Keep gambling venues away from vulnerable populations.
- Restrict gambling opportunities to dedicated gambling venues.
- Reduce hours of operation.



BEST PRACTICE #5:

Restrict or Eliminate High-Risk Forms of Gambling

- EGMs
- Casino Table Games
- Internet Gambling



BEST PRACTICE #6:

Restrict the Use of Tobacco and Alcohol While Gambling

- Deters PGs from gambling in the first place.
- Encourages them to take breaks.
- Allows them to gamble without disinhibiting effects of alcohol.



BEST PRACTICE #7:

Restrict Access to Money While Gambling

- Gambling venues should not offer credit.
- ATMs should not be conveniently close.



BEST PRACTICE #8:

Invest in Interventions that Provide Support to Children in their Early Years

- Child Care support
- Parenting classes
- Any and all interventions to strengthen families



BEST PRACTICE #9:

Impart Knowledge, Attitudes, and Skills to Inhibit the Progression to Problem Gambling

- Best done with comprehensive school-based programs prior to significant involvement with gambling.
- However, adult interventions also necessary (Responsible Gambling Information Centres; Information/Awareness Campaigns; Low Risk Guidelines; etc.)



- Dependency-forming potential of gambling
- Signs/symptoms of impaired control/PG
- Negative consequences of PG
- True odds of gambling games
- Correction of gambling fallacies
- Should never borrow \$ to gamble
- Normative levels of time and \$ spent on gambling
- Low risk limits/guidelines that predict problem-free status



BEST PRACTICE #10:

**Keep these Initiatives in Place
for Many Years, Because
Population-Wide Behavioural
Change Takes a Long Time**



For more information

- Williams, R.J., West, B., and Simpson, R. (2007b). *Prevention of Problem Gambling: A Comprehensive Review of the Evidence*. Report prepared for the Ontario Problem Gambling Research Centre, Guelph, Ontario, Canada. Dec 1, 2007. <http://hdl.handle.net/10133/414>
- Williams, R.J. & Simpson, R. (2008). *Promising Practices in the Prevention of Problem Gambling*. Report prepared for the Ontario Problem Gambling Research Centre, Guelph, Ontario, Canada. October 20, 2008.



Y1	Y2	Y3	Y4	Y5	Y6	Y7
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In Year 2, only 2/3rds of the problem gamblers identified are the same people identified in Year 1.

By Year 4, very few of the problem gamblers identified are the same people identified in Year 1.

What this means is that problem gambling impacts an increasingly wide portion of society over time.

This helps explain why attitudes toward gambling have become increasingly negative as well as why past year rates of problem gambling have tended to decrease (i.e., people are more wary).