



## Adolescent gambling: National research and its implications

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## Outline of Presentation I

- Gambling in Australia
- What is problem gambling?
- Why people develop problems with gambling?
- Pathways into problem gambling
- Prevalence of adolescent gambling

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## Outline (continued)

- Psychological and social effects on young people
- Services and early intervention
- How to detect young gamblers or victims of parental gambling?
- Role of knowledge and education

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## Gambling in Australia

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## Commercial Gambling Activities

- **Types of gambling (available 18+)**
- Gaming: poker machines, casino table games (e.g., blackjack, roulette)
- Wagering: Racing, sports-betting
- Lottery products: Keno, lotto, powerball, scratch tickets

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## Gambling in Australia II

- Net expenditure in 2005-2006 was almost \$17 billion with 60% from EGMs
- 70-80% of people gamble at least once per year
- 1-1.5% have significant problems associated with gambling
- Highest problems in younger males
- 70% related to EGMs, 20% racing, 10% Casino games

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## What is problem gambling?

- Distinction between problem vs. pathological gambling
- Pathological gambling is a medical / psychiatric term
- An emphasis is placed on biological, physiological, neurological and genetic determinants
- Pathological gamblers are fundamentally different from others who gamble

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## The importance of harm-based definitions

- Earlier definitions emphasised harm (Productivity Commission)- behaviour is only problematic when it causes harm
- Behaviour is only problematic when it impairs functioning / reduces one's quality of life

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## Harms Related to Problem Gambling

- **Types of harm:**
- Personal: depression, anxiety, suicide
- Financial: Loss of money, assets
- Interpersonal: isolation, family breakdowns
- Vocational: loss of employment
- Legal: Criminal offending

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## The importance of behaviour

- **Limitations of Harm Approach**
- Less conceptually useful in a regulatory or prevention sense
- It may take time to incur certain forms of harm to occur
- Not all people have significant assets or relationships to lose (namely, young people)

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## Behaviour as an indicator of problem gambling

- It is useful to understand the patterns of behaviour that lead to harm
- Behaviour is more amenable to change, to regulation, identification in venues, and in prevention and educational strategies
- Behaviours can be qualitatively unusual (e.g., stealing) or quantitatively unusual (e.g., spending too much time or money)

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## Current National Definition

- A national definition was developed to capture both the behavioural and harmful elements of problem gambling
- *“PG is characterised by difficulties in limiting money and/or time spent on gambling which leads to adverse consequences for the gambler, others, or for the community.”*

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## How do gambling problems develop?

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## Theories of Problem Gambling

- Psycho-analytic theory
- Addiction/ Medical Models/ Genetic theories
- Need state /Arousal theories
- Learning theory
- Cognitive theory

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## Psycho-analytic Theory

- Freud, Bergler
- Gambling as Lady Luck – Gambling as a form of internalised maternal chastisement for inappropriate behaviour
- Gambling as a form of auto-eroticism: gamblers lose to punish themselves for their 'naughty' behaviour
- Poor attachment and hatred of self may lead to self-destructive behaviours, including pathological risk taking

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## Medical Models

- Traditional addiction models based on tolerance, craving and withdrawal
- Neurophysiological explanations: Based on poor frontal lobe function (Bechara's work), chemical imbalances (Kim and Grant)
- Genetic Theories and links with ADHD

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## Medical Models II

- Certain young people have pre-existing vulnerabilities
- Links between early problems with behavioural and emotional regulation and adolescent risk-taking
- Gambling is one of multiple risk-taking activities that should be assessed during adolescence

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## Arousal Theories

- Sensational-seeking (Zuckerman), Tolerance, Extroversion
- People crave risk-taking activities to achieve an optimal level of arousal
- Young people may gamble for the excitement and physiological arousal or 'buzz'

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## Psychological Addiction

- **Durand Jacobs General Theory of Addiction**
- Early experiences of trauma, abuse, loss lead to a desire for escape and avoidance
- People gamble to alter their identify, mood states, reality
- Gambling as a form of catharsis to reduce symptoms of depression and anxiety

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## Psych Addiction (cont)

- Some support for this model for some adult gamblers
- Evidence of dissociation
- Links with trauma, abuse, anxiety and depression
- Links with higher emotional and avoidance-based coping styles
- May also be evident in adolescents

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## Learning Theory I

- **Operant Conditioning**
- Gambling activities are designed to attract players and maintain behaviour
- Intermittent schedules of reinforcement
- Variable and random ratio schedules of reinforcement
- Partial reinforcement extinction effect
- Role in scratch ticket gambling, slot-machines and video games

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## Learning Theory II

- **Classical Conditioning**
- People become conditioned to the arousal or excitement associated with gambling
- Anxiety reduction associated with gambling involvement ( + Negative reinforcement via operant conditioning)
- Generalisation effects and loss of stimulus control
- Effects of advertising, gambling promotions on young people

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## Cognitive Theories

- Based on the premise that gamblers must be irrational if they continue to gamble when the odds are stacked against them.
- Based on findings of 'speaking aloud' studies (70-80% of statements are irrational)
- People over-estimate their ability to influence or predict outcomes

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## Cognitive theories II

- **Common heuristics and biases**
- Representation bias / Gambler's fallacy
- Availability
- Illusion of Control
- Optimism bias
- Hindsight Bias
- Biased attributions

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## Cognitive Theories III

- Young people may think that the odds of winning are higher than is actually the case
- Lack of knowledge concerning the mathematics of gambling/ odds
- Over-confidence in ability to control outcomes
- Failure to differentiate skill vs. chance activities

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## Pathways Approach

- Blaszczynski & Nower suggest that the different theories might be applicable to different subsets of gambler
- **3 principal pathways**
- Behaviourally conditioned
- Emotionally vulnerable
- Anti-social impulsivists

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## Pathway 1

- **Behaviourally conditioned**
- Grow up in a family or social environment where everyone gambles
- Excessive involvement leads to chasing, over-commitment of time and money
- Gambling maintained by cognitive and behaviourally processes

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## Pathway 2

- **Emotionally vulnerable**
- People gamble to escape depression, anxiety, trauma
- Poker machines or arousal-reducing forms of gambling may be preferred
- Avoidant and emotion-based coping
- Women > Men in this category

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## Pathway 3

- **Anti-social Impulsivists**
- Have deeper underlying pathology
- May be more addiction prone, impulsive, anti-social
- Males > Females in this category

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What do we know about adolescent gambling?

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## International Findings

- High prevalence rates in overseas studies
- Adult problem gamblers commonly report that their interest in gambling commenced at an early age
- Adult survey data indicates that the 18-24 age group has the highest prevalence of problem gambling
- Often coincides with broader psychological /social problems

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## Prevalence of adolescent problem gambling

- Consistently 2 – 3+ times higher than adults
- United States and Canada: 3.2% - 6.4% (Shaffer & Hall 2001).
- United Kingdom: 5.0% (Fisher, 1992), 6.0% (Wood and Griffiths, 1998).

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## Correlates of gambling in adolescence

- Drug-use, alcohol abuse, truancy, and petty criminal behaviour (stealing).
- Poorer educational outcomes.
- Poorer self-esteem, higher levels of depression and anxiety.

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## Previous Australian Research (Victoria)

- Jackson et al. (1999): Gatehouse project
- 2700 Year 8 students. Obtained gambling frequency and attitudinal data
- Gambling participation related to: risky behaviours (e.g., substance use), disengagement with school, social maladjustment, self-harm.

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## Previous Australian Research (Victoria)

- There have been two studies by Moore and Ohtsuka: Both involved around 800 adolescents
- Only 2.0% of the sample were probable problem gamblers
- Showed that gambling involvement was linked to attitudes as well as peer and family involvement

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## Participation rates (last 12 months)

- Delfabbro & Thrupp (2003): SA
- Delfabbro, Lahn, & Grabosky (2004): ACT

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## Overall gambling frequency (previous 12 months) in SA

- 37.5% never gambled in this period
- 47.8% gambled at least once but less often than once per week
- 14.7% gambled on a weekly basis

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## Delfabbro & Thrupp (2003): SA (previous 12 months)

	Never	Infrequent	Weekly or more often
Private cards (\$)	397 (79.9)	93 (18.7)	7 (1.4)
Poker machines	431 (86.9)	61 (12.3)	4 (0.8)
Racing	424 (85.5)	66 (13.3)	6 (1.2)
Sports	392 (79.4)	69 (14.0)	33 (6.7)
Lotteries/ Keno	317 (63.5)	158 (31.7)	24 (4.8)
Scratch cards	284 (57.7)	183 (37.2)	25 (5.1)

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## ACT Sample

- Years 7 to 12
- 926 participants (M=473, F=448)
- 60% government, 40% Catholic or Independent
- Indigenous 3.5%
- NESB: 24.3%
- Living arrangements
- Parents employed/unemployed

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## Overall Gambling Frequency (previous 12 months) in ACT

- *Infrequent* gambling: 60.4%
- *Frequent* gambling 10%
- *Never* gambled 29.6%

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## Delfabbro, Lahn, Grabosky (2004):ACT (previous 12 months)

	% Never	% Infrequent	% Frequent
Private Cards (for \$)	60.1	36.6	3.2
Casino cards	95.5	3.8	0.7
Poker machines	87.3	11.3	1.4
Racing	68.1	30.5	1.5
Sports Betting	73.9	21.5	4.5
Lotteries and Keno	76.7	22.2	1.4
Scratch cards	59.5	38.8	1.7
Internet	93.9	4.6	1.5

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## Participation rates: Key points

- Overall rate around 60-70%, weekly 10-15% (ACT > SA)
- Very low involvement in adult forms of gambling (e.g., EGMs, Casino games)
- A lot of gambling is private (particularly in the ACT)
- ACT has more racing gambling than SA
- SA has higher lottery participation (different age-laws)
- Internet gambling: not a major problem

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## Social Context of Gambling in the ACT

### WHO DO THEY GAMBLE WITH?

- Friends: card games
- Alone: pokies, internet
- Parents: racing, lotteries, scratchies

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## Link with Parental Gambling (ACT)

### ASSOCIATION between ADOLESCENT and PARENTAL gambling

- 85.7% of adolescent frequent gamblers had parents who gambled
- 47.8% of adolescent non-gamblers had parents who gambled

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## Social Impacts: Problem Gambling

- Overall prevalence
- Social and attitudinal correlates of problem gambling
- Psychological correlates

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## How is problem gambling assessed in adolescents?

- DSM-IV-J and DSM-IV-J (Multiple response version)
- 9-12 item checklists based on the adult criteria
- Score of 4 or higher = problem gambler

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## Problem Gambling in the ACT

- Two measures of problem gambling were administered
- 4.4% were classified "problem gamblers" on the DSM-IV-J
- 3.3% were classified using the VGS.

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## Comparative Figures

Author	n	Age	Location	Measure	Prevalence
Moore & Ohtsuka 1997	1017	14-25	Vic	Modified SOGS	3.8
Moore & Ohtsuka 2001	769	13-19	Vic	Modified SOGS	2.0
Delfabbro & Thrupp 2003	505	15-17	SA	DSM-IV-J	3.5
Delfabbro et al 2005	926	12-19	ACT	DSM-IV-J VGS	4.4 3.3

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## Problem Gambling: individual differences (ACT)

- Gender: 7.8% of boys, 2.7% of girls
- Indigenous: 28% vs 4.1% non-indigenous
- Age: year 7-12 upward trend 4% - 6.3%

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## Problem Gamblers: Participation rates (ACT)

- Cards: 80%
  - Pokies: 54%
  - Racing: 68%
  - Sports betting: 68%
  - Internet: 20%
- PG: wider range of gambling activities

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## Problem Gamblers: gambling history

- Started younger (9.62 yrs. vs 11.77 yrs.)
- Early big win (54% vs. 21%)
- Someone close with a gambling problem (50% vs. 14%)
- Parents gambled (90% vs. 71%)

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## Problem Gambling: social influences and norms

- 44-56% PG vs. 7-17% non-PG agreed or strongly agreed with:
- "Most of my friends gamble"
  - "Most of my friends approve of gambling"
  - "Most people in my family gamble"
  - "My family approves of gambling"

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## Key points: Problem Gambling

- Prevalence is around 2 x adult levels (but these rates should not be interpreted the same way)
- High rates in indigenous young people
- Strongly influenced by parental and peer influences + attitudes
- Evidence of intergenerational problems
- Boys much more at risk than girls

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## Will education be useful?

- How well do young people understand the odds?
- Will it make a difference to problem gambling?
- Questions included in the ACT study

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## Perceptions of Skill (ACT)

- All participants rated card games, racing and sports betting as more skilful than other forms of gambling
- PGs rated all forms of gambling as involving more skill than non-PGs, especially games of pure chance (pokies, bingo, lotteries and roulette).

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## Understanding Odds (ACT)

"In Lotto on TV, there are 45 numbers and you must choose 6. Which of the following gives the closest odds of all 6 of your numbers being drawn so that you win the jackpot?"

1 in 900; 1 in 9000; 1 in 90,000; 1 in a million; 1 in 5 million; 1 in 8 million; 1 in 20 million.

- PG and non-PG: no differences in responses
- But the majority got it wrong

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## Perception of Randomness (ACT)

### Rolling a Die:

"Are there numbers that are harder or easier to get than others?"

- 26% said "yes, some are harder" (55% said 6's)
- 27% said "yes, some are easier" (49% said 1's & 2's)

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## PGs. Vs NPGs

More PGs (than non-PGs) believe that some numbers are 'harder' to get (43% vs. 25%). Same for 'easier' numbers

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## Coin Sequences (ACT)

"A person tosses a coin 12 times in a row. Which outcome is most likely?"

1. HHTHTHTHTH
2. HHHHTTTTHH
3. THTHTTTTHH
4. None of them are likely
5. All of them are equally likely

Correctly answered by 25% problem gamblers and 57% of non-problem gamblers. This result is not related to age (knowledge of probability).

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## Gambling Optimism (ACT and SA)

- 9-item scale
- PGs scored higher on the scale than non-PGs.
- Lower risk aversiveness
- "Gambling is a good way to make money"

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## Other correlates

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## Substance Use (ACT)

### PG compared with non-PG:

- Alcohol (weekly): 3/4 of PG vs. 1/2 non-PGs
- PGs: Smoking prevalence 4 times higher
- PGs: Marijuana prevalence 6 times higher
- PGs: 'harder drugs' 10-20 times higher

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## Psychological Wellbeing (ACT)

### PGs poorer in measures of:

- Negative Mood
- Self-esteem
- Family Adjustment
- General Health
- Anomie
- Relative Deprivation

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## Relationships with Peers (ACT)

How many peers they disliked, liked, and how many they thought disliked them.

- PG same amount of friends
- PG disliked twice as many peers
- PG thought more peers disliked them

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## Identifying young people at risk

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## Young people at risk

- **Two groups:**
- Victims of parental gambling
- Young problem gamblers

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## Warning Signs

- Gradual changes in appearance
- Coming to school poorly dressed, neglected, no lunch money, no breakfast
- Change in grades / school performance
- No other signs of drug, alcohol use

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## Interventions

- Addressing underlying psychological difficulties contributing to risk-taking
- Encouraging new hobbies and activities
- Addressing irrational beliefs
- Dealing with peers, assertiveness training
- 3<sup>rd</sup> party interventions possible in some States to assist parents

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Any questions?

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