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Prevalence of problem gambling in Malaysia's most populous state: Insights from a population research

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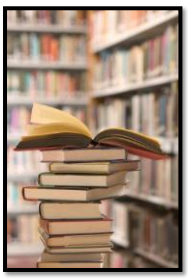
Outline



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Research details - Acknowledgements

- Principal Investigator : Dr. Jasmine Loo
  - Lecturer & Psychologist, Monash University
  - Secretary, National Committee on Problem Gambling
- Co-investigator : Datin Dr. Ang Kim Teng
  - Chairman, National Committee on Problem Gambling
  - President, Malaysian Mental Health Association (MMHA)
  - Consultant at Ministry of Health Malaysia
- Funded by Malaysian Health Promotion Board, Ministry of Health

Introduction - Epidemiology

- 70-90% adults gamble sometime in life
- Current prevalence rates
  - Western populations – Pathological gambling, PAG (1 - 2%); Problem gambling, PG (up to 5%)
  - Asian populations – PAG (1.78 - 2.9%); PG (up to 4%)
    - Under-reporting (↓ self-report, ↑ third-party estimate)
    - Reluctance to admit personal failure and to "save face" (Loo, Raylu, & Oei, 2008)
  - Adolescents PAG (4.4 - 7.4%); another 10 - 14% at risk
  - Psychiatry patients PAG (6.7 - 12%)
  - Substance abuse treatment PAG (7 - 39%)
- Significant link between accessibility, availability of gambling & problem gambling
- First research study in Malaysia to assess prevalence of population PG

Definitions

- The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR; American Psychiatric Association, 2000) describes pathological gambling (PAG) as a destructive and reoccurring gambling behavior that interferes with personal, familial, and occupational pursuits
- Problem gambling (PG) is used in a broader sense to define the situation where an individual is experiencing gambling problems but does not meet the diagnostic criteria for pathological gambling (Lesieur & Blume, 1987; Victorian Casino and Gaming Authority, 2000)
- Gambling behaviour is often described in a continuum
- May 2013 update: DSM-5
  - Reclassified as “Gambling Disorder” under "Addiction and Related Disorders"
  - 9 symptoms/behaviours
  - Threshold of 4 symptoms

Context: Malaysia

- Malaysian Constitution – 2 separate court systems
- Gambling is forbidden under Islamic law
  - Punishable by Syariah court
- Syariah law is *not* applicable to non-Muslim Malaysians
- Multi-cultural with 3 main ethnicities: Malay (Muslim by birth), Chinese and Indian
- Regulation of gambling – Ministry of Finance (Betting Control Unit)
- Gambling treatment centres report being overwhelmed
- Funding

Research objectives and design

- Objectives
  - To determine the types of gambling activities that Malaysians engage in
  - To determine the prevalence of problem gambling and probable pathological gambling
  - To examine the relationship between mental health and gambling behaviour
- Study Design
  - Cross-sectional household survey using a structured questionnaire with three language variations: English, Malay and Chinese translations
  - Proportionate stratified random sampling method (based on ethnicity)

Method - Participants

- 1070 households visited
  - Households list generated with the assistance of Department of Statistics Malaysia
  - A team of trained multi-lingual research personnel
- 372 responses (35% response rate), 108 unreturned/pending (Business Reply Paid), 590 declined
- Age range - 16 to 84 years
- Gender – 54.8% females, 45.2% males
- Exclusion: Non-Malaysians are excluded from the study

Method - Materials

- Structured, validated questionnaire in English, Malay and Chinese
- Short Questionnaire (10 minutes to complete):
  - Demographics
  - Problem Gambling Severity Index (PGSI; Ferris & Wynne, 2001; Loo, Oei & Raylu, 2011)
  - South Oaks Gambling Screen (SOGS; Lesieur & Blume, 1987)
  - Depression, Anxiety, and Stress Scale (DASS; Norton, 2007)

Method - Procedures

- Pilot study was conducted prior to running final study
- Information from Head of Households
  - Random selection of participants >15 years in household
  - Participation dependent on availability
- Return of questionnaires from participants
  - Responses collected immediately
  - Business Reply Paid
  - Re-visited (follow-up visits)
- Three visits to households when there was no one at home
  - Both weekdays and weekends

Results- Respondent demographics

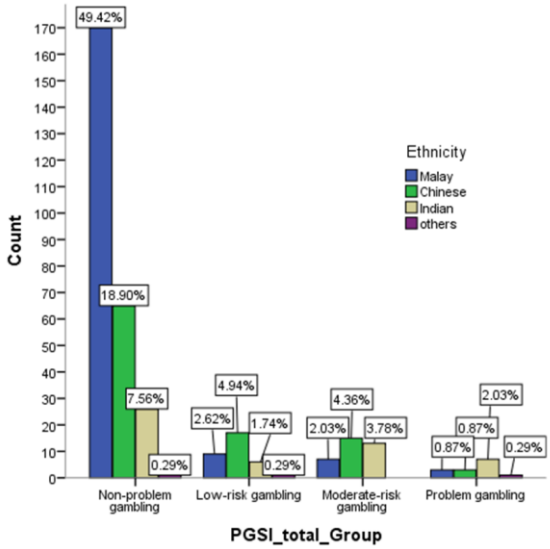
Demographics	*n* participants (%)
Gender	
Male	168 (45.2%)
Female	204 (54.8%)
Ethnicity	
Malay	208 (56.0%)
Chinese	104 (27.9%)
Indian	57 (15.3%)
Others	3 (0.8%)
Age	
15 to 20 years	35 (9.4%)
21 to 30 years	72 (19.4%)
31 to 40 years	114 (30.7%)
41 to 50 years	79 (21.3%)
51 to 60 years	43 (11.3%)
61 to 70 years	24 (6.5%)
71 to 85 years	5 (1.3%)
Marital status	
Single	108 (29.0%)
Married without children	18 (4.9%)
Married with children	231 (62.0%)
Separated/divorced/ widowed	15 (4.1%)

Demographics	*n* participants (%)
Education	
No formal education	5 (1.4%)
Primary school	15 (4.0%)
Secondary school	186 (50.0%)
College	61 (16.5%)
University	105 (28.1%)
Occupation	
Student	48(12.9%)
Home maker	47 (12.7%)
Self-employed	49 (13.2%)
Paid employment	139 (37.2%)
Unemployed	54 (14.6%)
Others	35 (9.4%)
Religion	
Islam	210 (56.4%)
Buddhism	87 (23.4%)
Hinduism	49 (13.1%)
Christianity	18 (4.9%)
No religion	6 (1.6%)
Others	2 (0.5%)

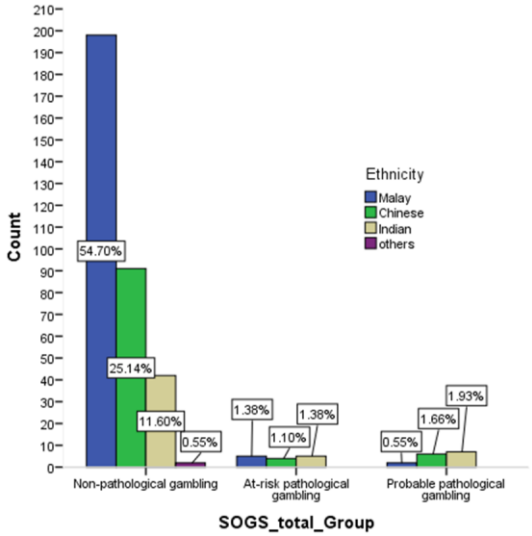
Results - Participants in each category of SOGS and PGSI

Gambling scale	Males (% within gender)	Females (% within gender)	Total (% within total)
SOGS			
Non-pathological gambler (SOGS = 0 to 4)	139 (38.7%)	191 (53.2%)	330 (91.9%)
At-risk pathological gambler (SOGS = 5 to 7)	11 (3.1%)	3 (0.8%)	14 (3.9%)
Probable pathological gambler (SOGS = 8 or more)	12 (3.3%)	3 (0.8%)	15 (4.2%)
PGSI			
Non-problem gambler (PGSI = 0)	101 (29.5%)	158 (46.2%)	259 (75.7%)
Low-risk problem gambler (PGSI = 1 to 2)	18 (5.3%)	15 (4.4%)	33 (9.6%)
Moderate-risk problem gambler (PGSI = 3 to 7)	23 (6.7%)	12 (3.5%)	35 (10.2%)
Problem gambler (PGSI = 8 or more)	12 (3.5%)	3 (0.9%)	15 (4.4%)

Results – PGSI scores based on ethnicity



Results – SOGS scores based on ethnicity



Results – Hierarchical Multiple Regression

Results of the hierarchical multiple regression (HMR) assessing the effects of gender, ethnicity and DASS-subscales on outcome variables

Predictors	SOGS		PGSI	
	ΔR^2	β^a	ΔR^2	β^a
Step 1	.123***		.153***	
Gender[b]		.207***		.214***
Ethnicity		.282***		.326***
Step 2	.133***		.082***	
DASS-d		.208**		.147
DASS-a		-.047		-.071
DASS-s		.227*		.225*

Note: [a] Standardized beta weights at entry. [b]Gender: 1 = Male, 0 = Female.
* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

Results – Projected prediction

- Prediction based on Selangor's total population (5.6 million Malaysians)*
- SOGS
  - 235,200 Malaysians in Selangor – probable pathological gambler
  - 218,400 Malaysians in Selangor – at-risk pathological gambler
- PGSI
  - 246,400 Malaysians in Selangor – problem gambler
  - 571,200 Malaysians in Selangor – moderate-risk problem gambler
  - 537,600 Malaysians in Selangor – low-risk problem gambler

*Source: Department of Statistics, Malaysia

Discussion and implications

- Prevalence rates match estimates from other Asian countries
  - Further investigations in Malaysia should be conducted
- Considerable percentage of the population may be significantly affected by PG and PAG
- Government funding essential to the development of prevention and treatment programs
  - Streamlined through revenues from taxation of gaming operators
- Responsible gambling regulatory safeguards should be implemented and carefully enforced to protect Malaysians

Thank you

Any Questions?

Please email me at
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