Comorbidity of Gambling and Mental Illness

A/Prof Victoria Manning

Gambling Harm Conference

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Project Investigators

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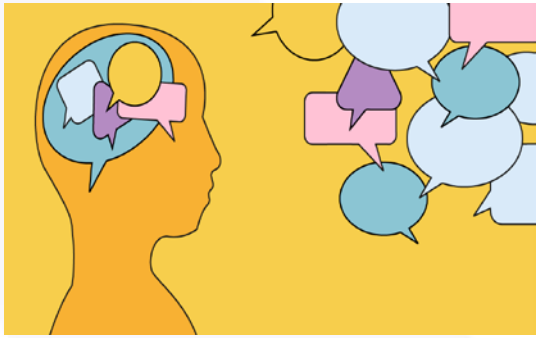
Prevalence of co-morbidity

- Systematic review and meta-analysis of PGs in general population (Lorains et al,. 2011)
  - 57.5% SUD, 37.9% mood disorder (any), 37.4% anxiety disorder (any)
- Systematic review and meta-analysis of PGs seeking treatment (Dowling et al., 2015)
  - 74.8% of treatment seeking gamblers report co-morbid DSM Axis I disorders
  - 23.1% co-morbid mood, 17.6% AUD, 7.0 % Drug use disorder, 47.9% personality disorder
- Systematic review and meta-analysis of PGs in AOD services (Cowlishaw et al,. 2014)
  - 10 -43.4% (mean estimates: 23% PG and 14% pathological gambling)
- PG overrepresented in psychiatric outpatient services (Dowling et al., 2014; Henderson, 2004; Nehlin et al, 2013; Zimmerman et al 2006a).
  - (2.0%–4.4%)

PG in Australian MH pop'ns



29.1% of veterans with PTSD (SOGS)

5.8% of outpatients with psychotic disorders (PGSI)

2% of psychiatric outpatients (BBGS)

(Biddle et al, 2005,Haydock et al, 2015; Dowling et al, 2014)

Background

- PG can complicate MH presentation, Tx engagement & response
- Identification & early intervention is critical
- PG often remains hidden, undetected and untreated
- Attempts to integrate screening into mental health services
- Literature on barriers to implementation of screening in GPs in primary care settings (Achab et al. 2014; Corney 2011; Rowan and Galasso 2000; Sullivan 2011; Sullivan et al. 2000, 2007).

Aims

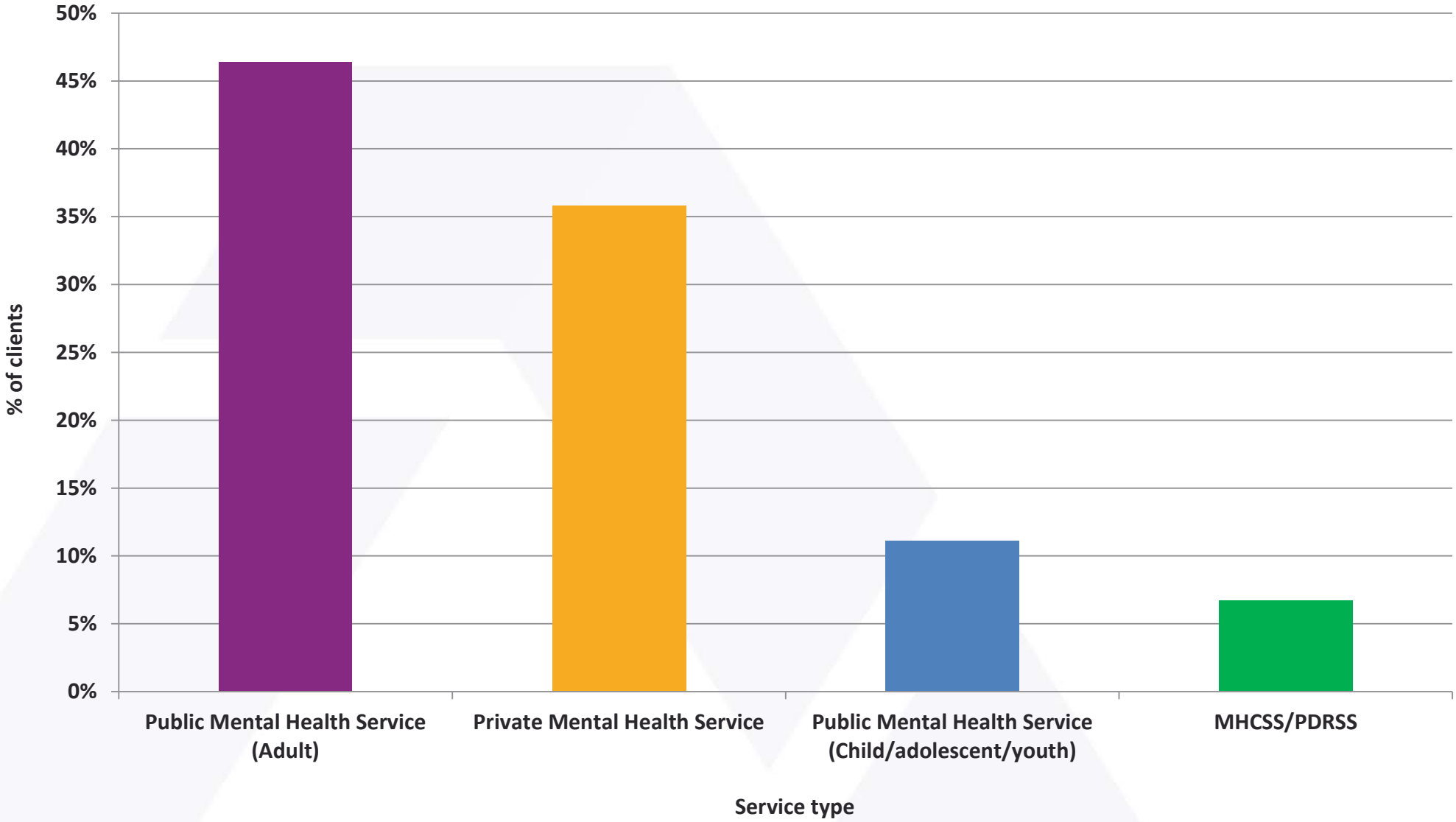
1. Determine gambling participation rates & behaviours
2. Estimate gambling problems across the risk continuum
3. Examine the overlap of PG, mental health disorders and harmful substance use
4. Identify the best performing brief PG screening tool for this population

Method

Design: Cross sectional study

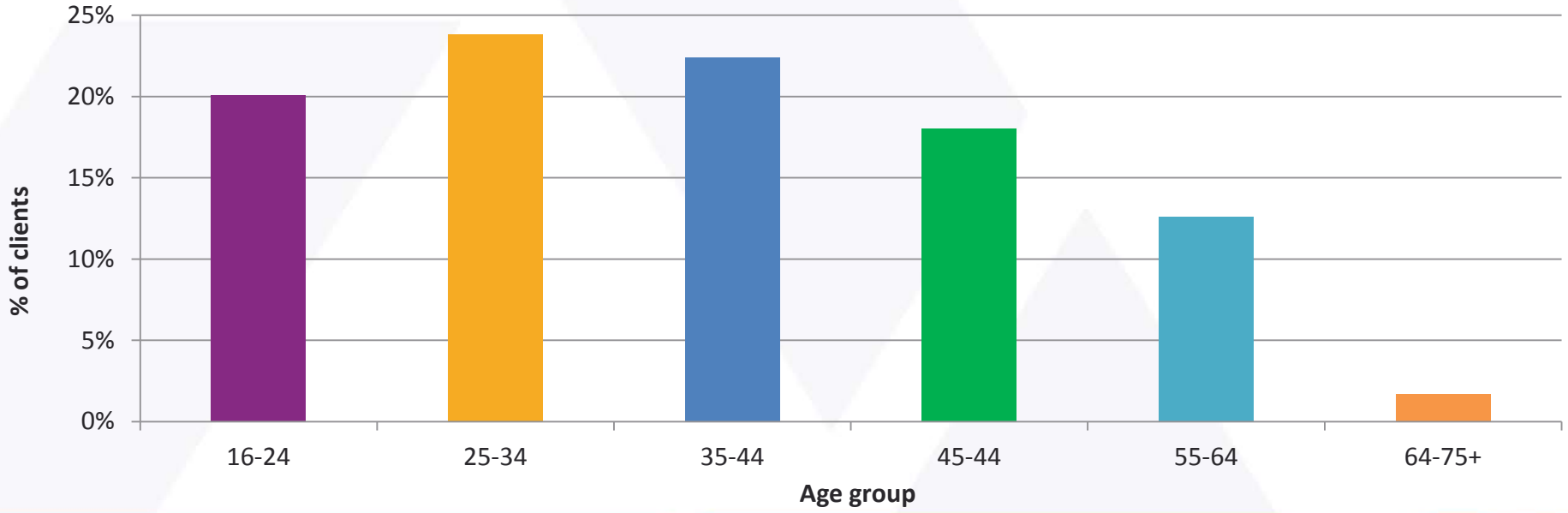
- Researchers approached patients in waiting rooms for 1-2 weeks (May 2015-Jan 2016).
- Self-completed an anonymous online 15-min survey on iPads and reimbursed with $10 voucher
- Psychometric testing of classification accuracy of 9 brief screening instruments against PGSI as reference standard

MH Service Types (*N*= 837)



Demographic characteristics

- N= 837 MH patients
- 50.9% males, mean age was 38.1 years (*SD*= 13.3 years)
- 77.6% born in Australia, >70% completed year 12
- 37.6% were employed/ studying, 19.7% were married
- More than half had received treatment at service for > one-year



Current mental health diagnoses (past year)

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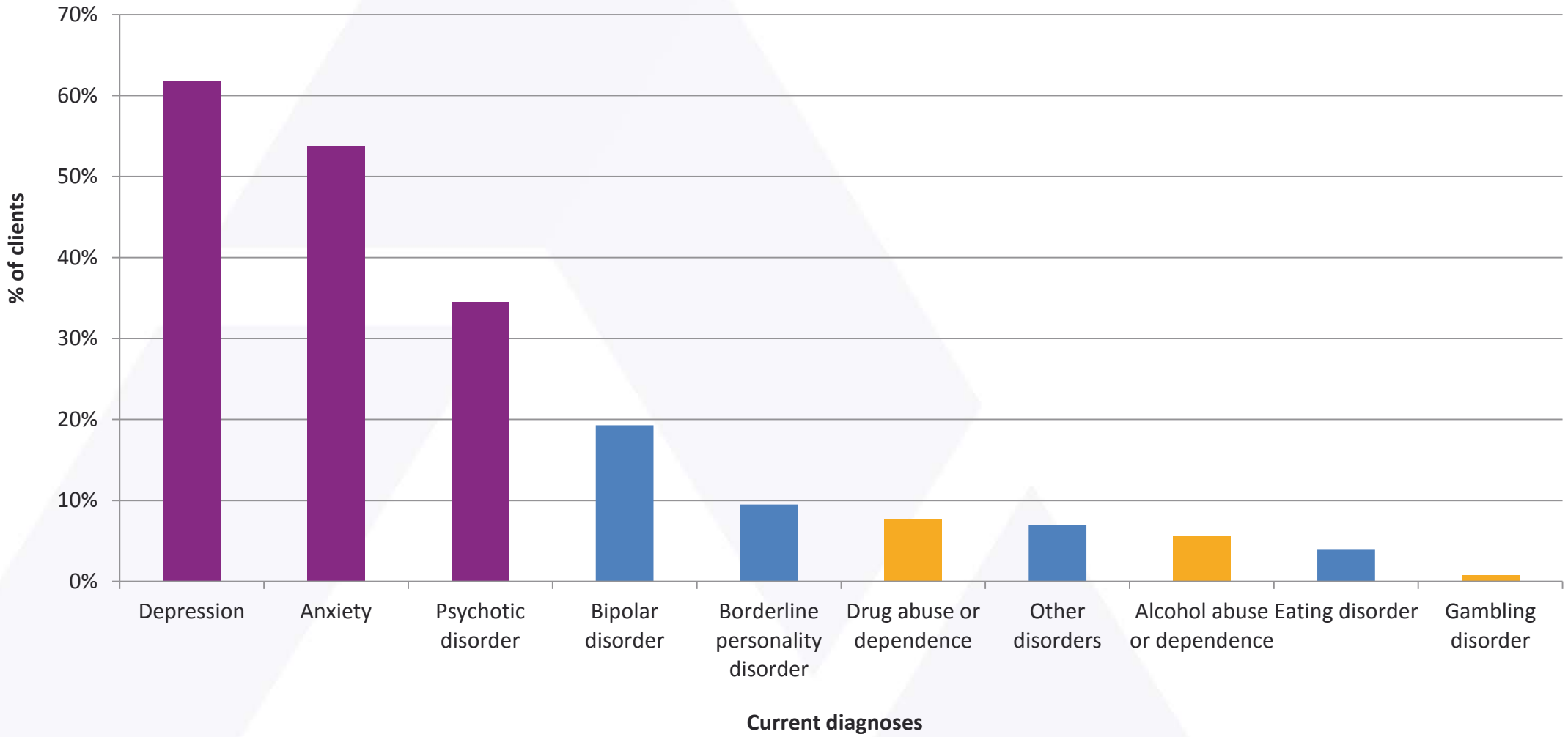

Participation in gambling activities (past year)

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Population	% [95% CI]
Patients	41.4% [38.1 – 44.7]
Victorian Prevalence Household Study (Hare, 2015)	70.1 % [67.6 - 72.49] *(61% excluding raffles)*

Participation in gambling activities (*N*= 841)

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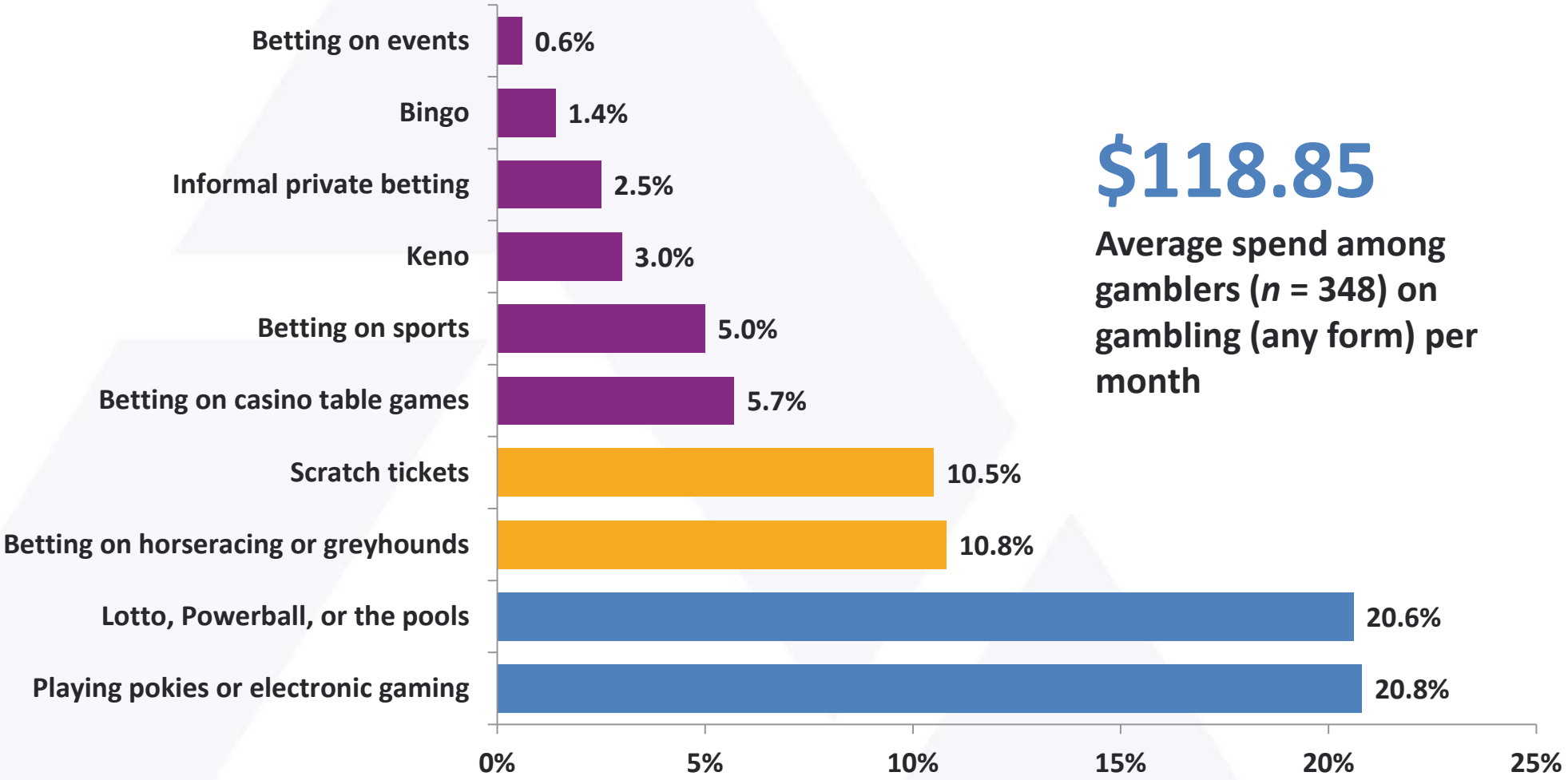

$118.85

Average spend among gamblers (*n* = 348) on gambling (any form) per month

The Problem Gambling Severity Index (PGSI)

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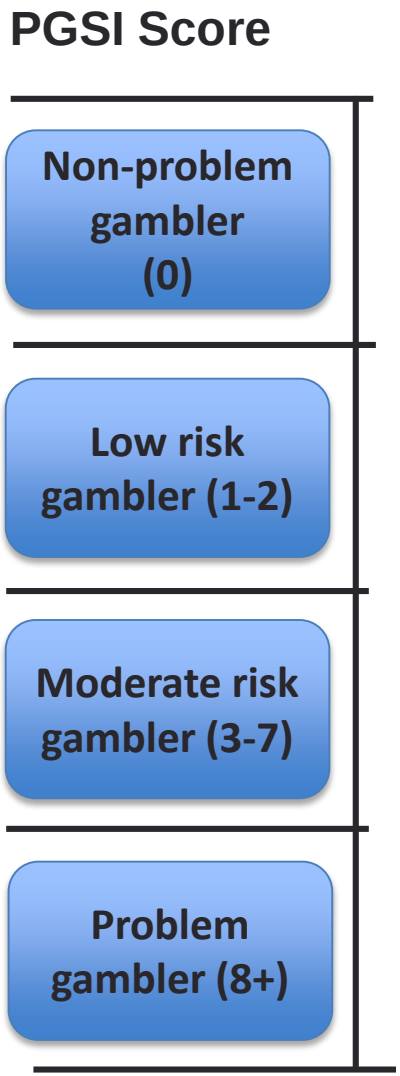
1. • Have you bet more than you could really afford to lose?
2. • Have you needed to gamble with large amounts of money to get the same feeling of excitement?
3. • When you did gamble, did you go back another day to try to win back the money you lost?
4. • Have you borrowed money or sold anything to get money to gamble?
5. • Have you felt that you might have a problem with gambling?
6. • Has gambling cause you any health problems, including stress or anxiety?
7. • Have people criticized your betting or told you that you have a gambling problem, regardless of whether or not you thought it was true?
8. • Has your gambling caused any financial problems for you or your household?
9. • Have you felt guilty about the way you gamble or what happens when you gamble?



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PGSI categories

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	n	% [95% CI]
Non-gamblers	493	58.6 [55.3 – 61.9]
Non-problem gamblers	165	19.6 [16.9 – 22.3]
Low risk gamblers	60	7.1 [5.4 – 8.8]
Moderate risk gamblers	70	8.3 [6.4 - 10.2]
Problem gamblers	53	6.3 [4.6 - 7.9]

PGSI categories in patient sample and general population

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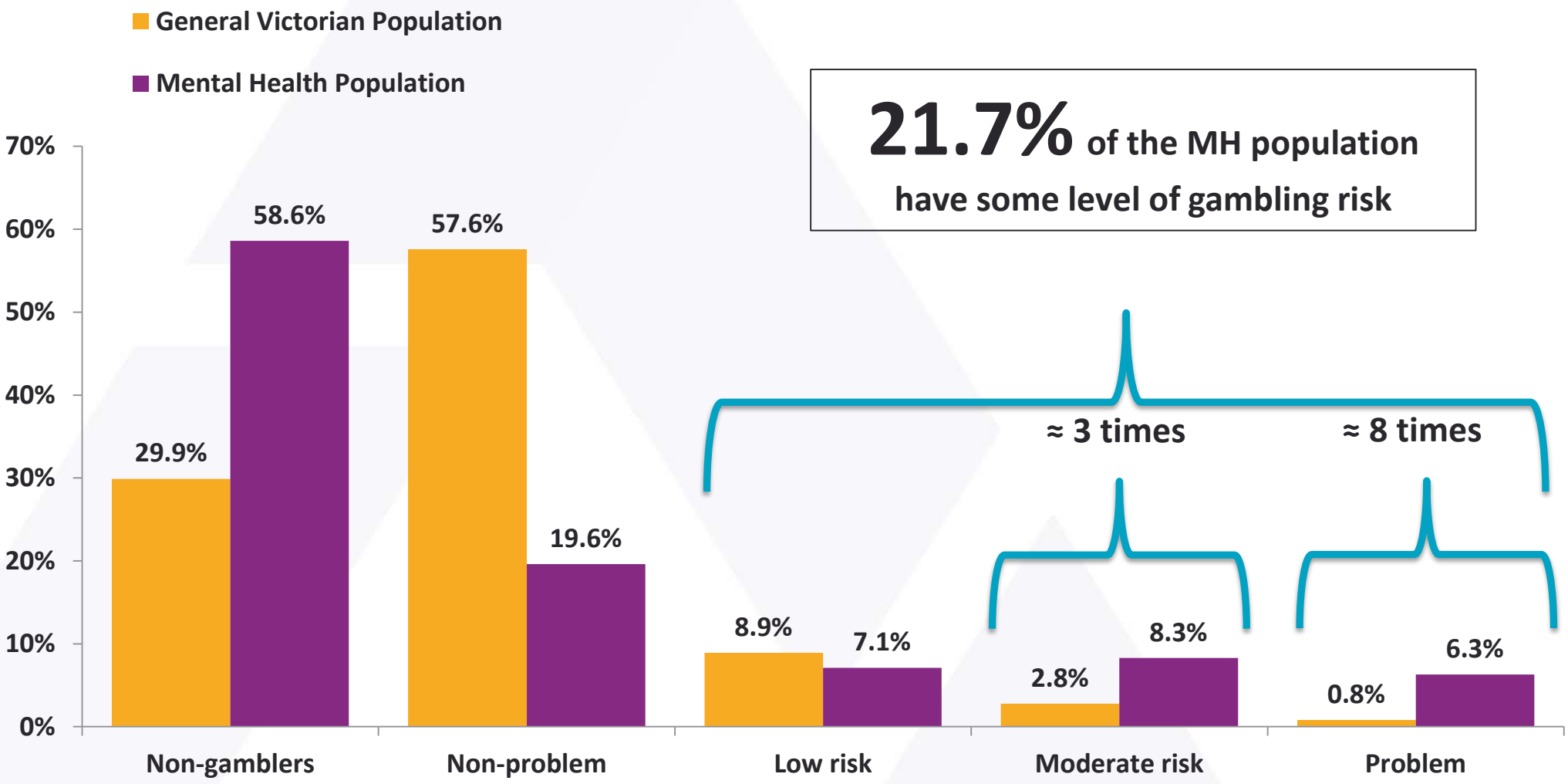

21.7% of the MH population have some level of gambling risk

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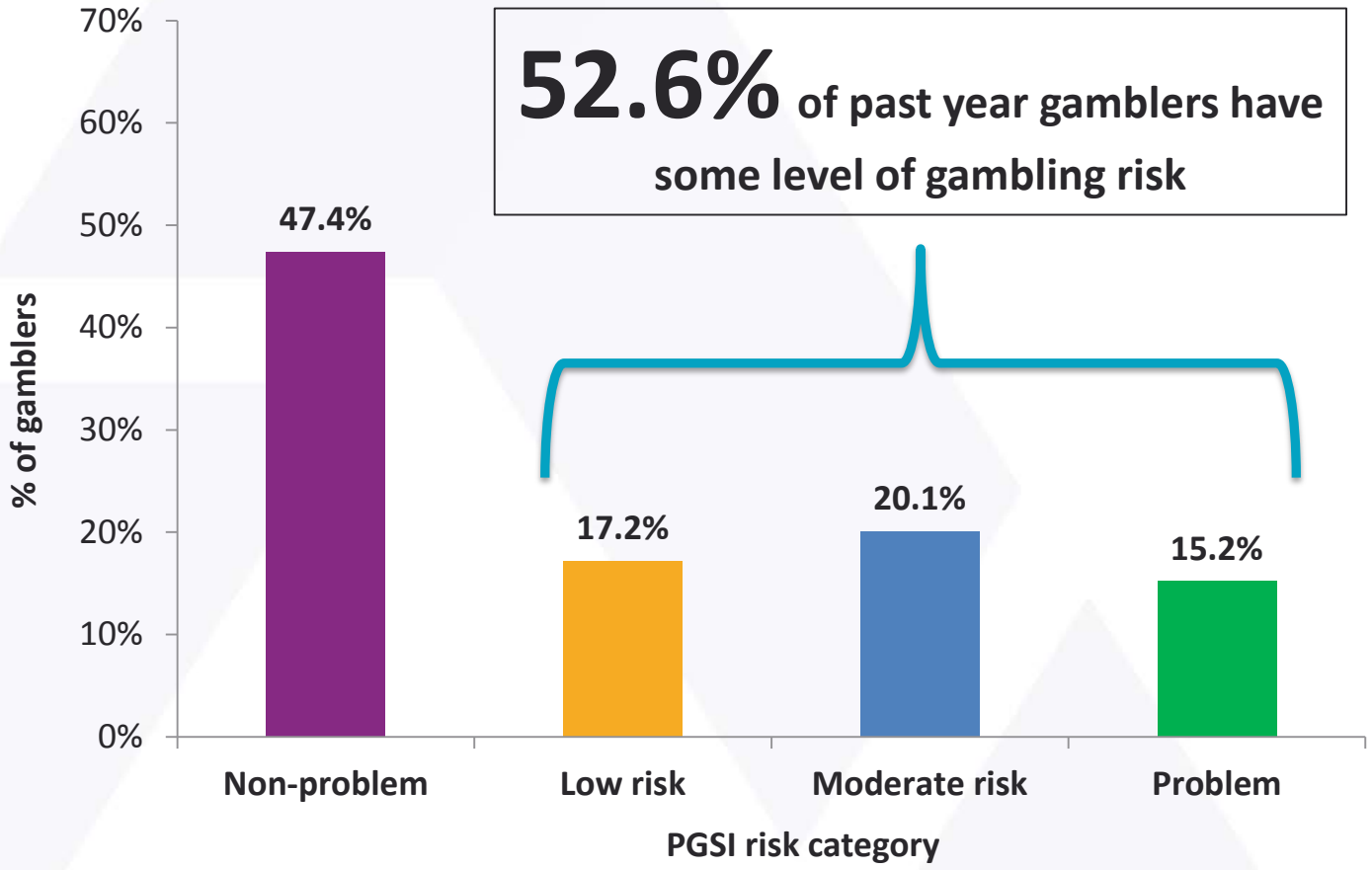
PGSI category among- among patients who gamble



Mean monthly spend on gambling by PGSI category

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Likelihood of PG by current MH diagnoses

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	Odds Ratio	95% CI for Odds Ratio
Drug abuse or dependence	4.31***	1.98-9.37
Borderline personality disorder	2.59*	1.13-5.94
Bipolar	2.01*	1.07-3.80
Psychotic disorder	1.83*	1.03-3.25
Alcohol abuse or dependence	1.81	0.60-5.43
Anxiety	1.07	0.61-1.88
Depression	0.46	0.46-1.42

* $p < .05$, ** $p < .01$, *** $p < .001$

Risky/problem gambling by number of MH conditions

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	Non-gambler		Non-problem gambler		Low risk gambler		Moderate risk gambler		Problem gambler	
	N	%	N	%	N	%	N	%	N	%
1 mental health disorder	456	58.9	143	19.2	50	6.7	64	8.6	49	6.6
2 mental health disorder	275	58.0	86	18.1	38	8.0	40	8.4	35	7.4
3 mental health disorder	112	56.3	31	15.6	15	7.5	20	10.1	21	10.6
4+ mental health disorder	40	56.3	9	12.7	5	7.0	9	12.7	8	11.3

Substance Use

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67.7%

Used alcohol

$43.85
Average spend per week

$72
Average spend per week

49.1%

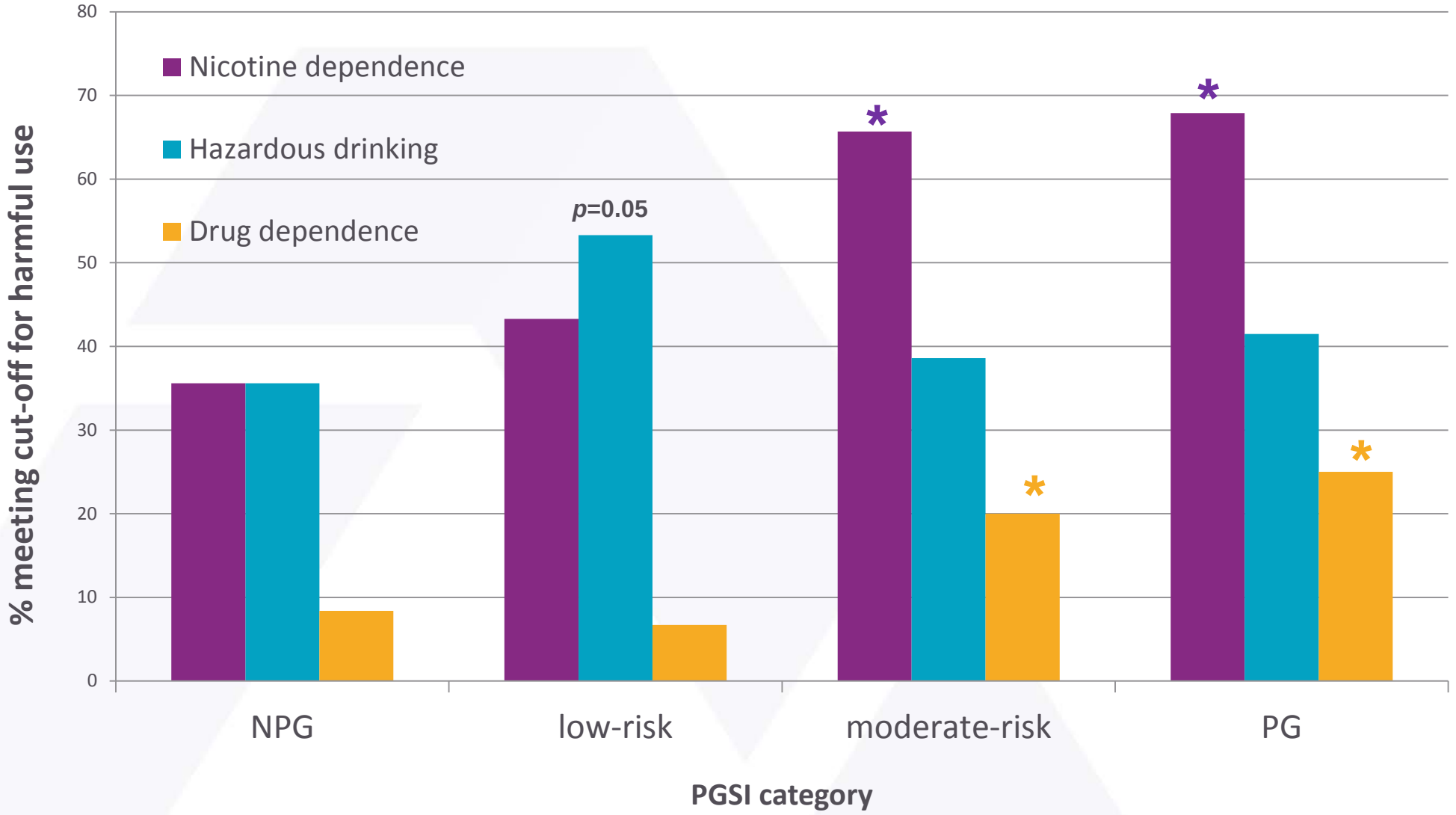
Used tobacco

24.1%

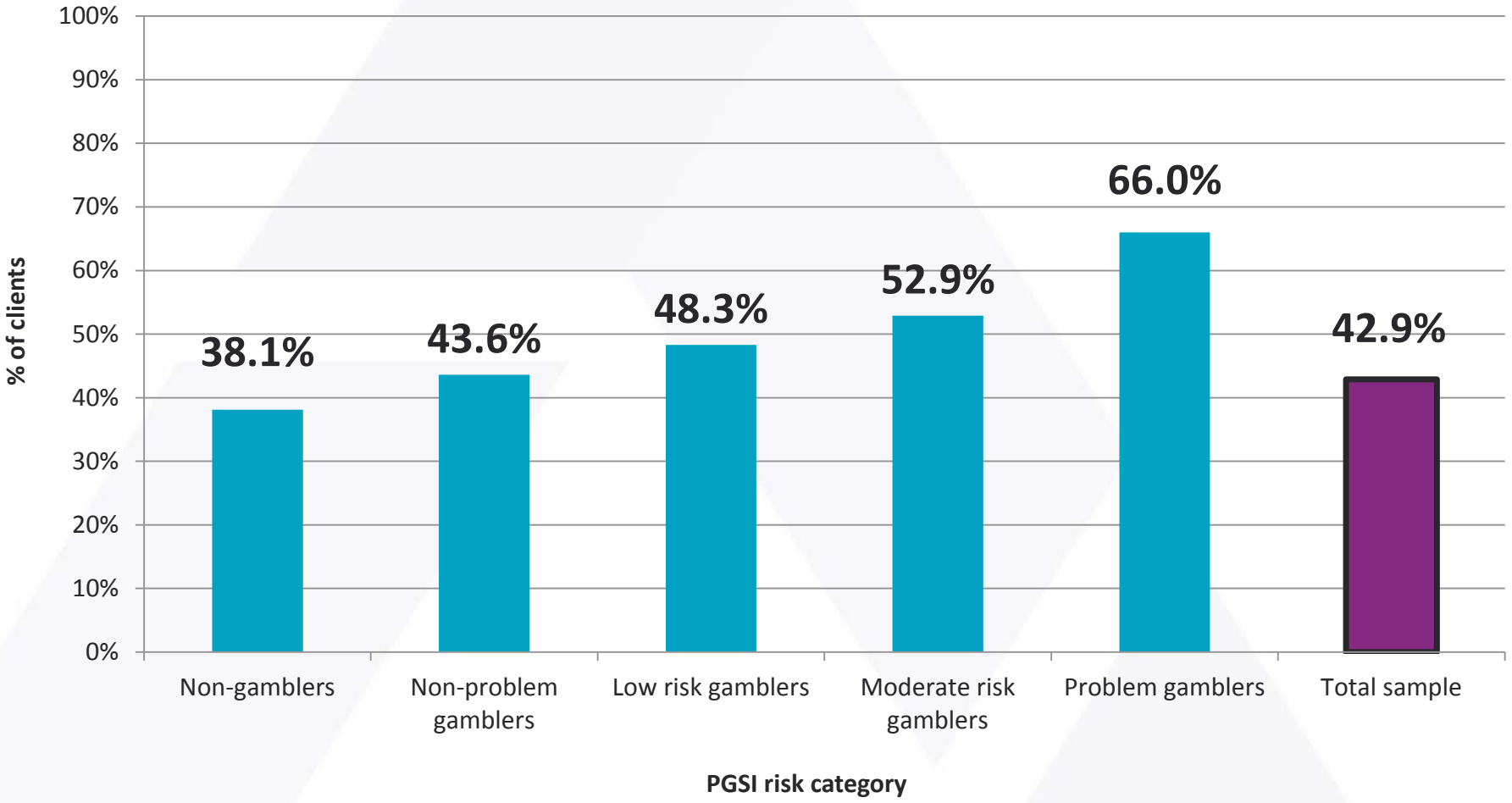
Used drugs

$120
Average spend per week

Substance use by PGSI category



Proportion asked about their gambling by PGSI category (*N*=837)



Summary of findings

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- 41% gamble (20% lower participation rates than gen pop'n)
- EGMs, Lottos, racing most common
- $118 mean monthly spend, $50 most common
- BUT risky gambling is higher (MR 3x and PG 8x)
- 22% of patients experience at least some harm
- ~50% of *gamblers* experience some harm
- Only 43% asked about their gambling
- Patients with psychosis, BPAD, BPD, Drug use and multiple MH disorders have higher rates of MR & PG
- Higher rates of nicotine/drug dependence in MR/PGs

Study limitations

- 55% response rate - generalisability?
- Representativeness - most complex excluded
- Under-reporting:
  - demand characteristics/social desirability effects
  - Past year PG assessed not lifetime
- Self-report data (recall bias, expenditure data)
- Comparison with general population problematic due to different time/method

Optimal screening tools

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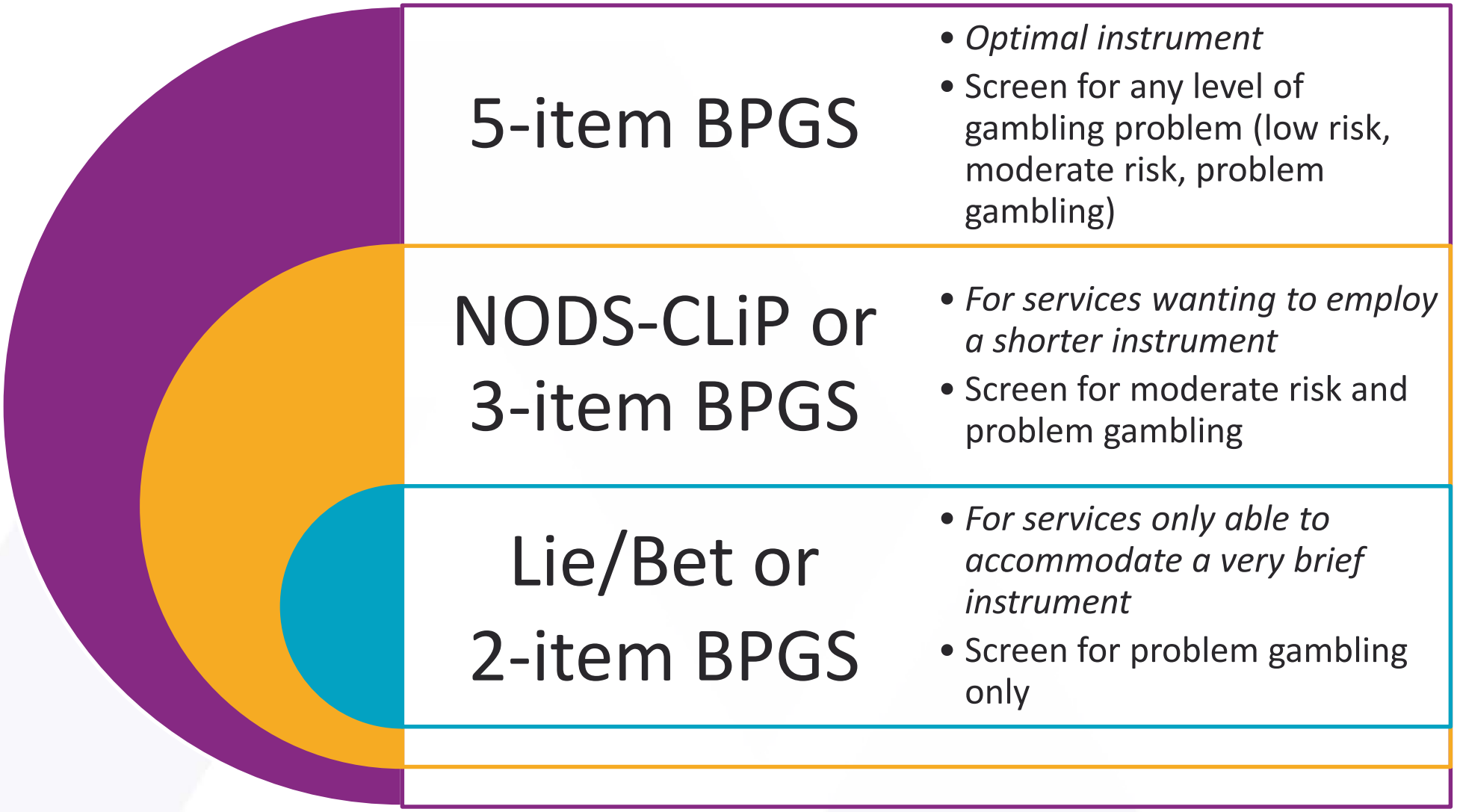

Item 1 of the PGSI for PG

"Thinking about the past 12-months have you bet more than you could really afford to loose?"

(rarely, sometimes, often)

- Diagnostic accuracy 90.8%
- Sensitivity 96.2%
- Specificity 90.5%

Implications of findings

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1. MH patients have elevated rates of gambling-related harm
2. Patients with disorders characterised by impulsivity, emotional dysregulation & cognitive impairment had higher rates of PG
3. Clinicians need to implement routine screening for PG (e.g., item 1 PGSI)
4. Raise consumer & carer awareness of increased risk of PG
5. Reduce the stigma associated with PG and instil hope of recovery
6. Invest in novel treatment approaches targeting transdiagnostic symptoms/characteristics of MH, PG & AOD disorders

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Researchers
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Mental health services
Clinicians, support workers, patients, clients and consumers.

Thank YOU for listening!

Publications

- Lubman, D, Manning, V, Dowling, N, Rodda, S, Lee, S, Garde, E, Merkouris, S & Volberg, R 2017, Problem gambling in people seeking treatment for mental illness, Victorian Responsible Gambling Foundation, Melbourne

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Screening tools

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Name of Tool	Number of items
Problem Gambling Severity Index (PGSI) (reference standard)	9
PGSI Short Form	3
NODS-CLiP	3
NODS-CliP2	5
NODS-PERC	4
Lie-Bet	2
Brief Biosocial Gambling Screen (BBGS)	3
Brief Problem Gambling Screen (best performing 2 items)	2
Brief Problem Gambling Screen (best performing 3 items)	3
Brief Problem Gambling Screen (best performing 4 items)	4
Brief Problem Gambling Screen (best performing 5 items)	5
23 single items	