

Pathways of gambling problem severity: Follow-up from a general population survey



Research chair on
gambling studies
Chaire de recherche sur l'étude du jeu



Fonds de recherche
sur la société
et la culture
Québec 

Université 
de Montréal

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on gambling and risk-taking
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Study objectives



- Describe trajectories of change in gambling patterns and problems among a cohort of gamblers;
- Model change over time based on life events.

Findings from longitudinal studies



Trajectories are variable and potentially multidirectional

Findings from longitudinal studies



- Mostly decrease ↓ in severity of gambling problems;
- Increase ↑ in severity of gambling problems is less frequent
- Stability → is mostly observed at both extremes of the scale ?

(Abbott, 2004; Shaffer, 2002; Slutske, 2003, 2006; Wiebe, 2003, 2009; Winters, 2005)

Findings from longitudinal studies



- Few longitudinal studies on gambling;
- Little is known about change and stability in gambling over time;
- Little is known about factors associated with change and stability over time.

Portrait of gambling in Québec project: ENHJEU-QUÉBEC



CROSS-SECTIONAL SURVEYS

Population survey 2009
(N=11 888)

Population survey 2012
(N=11 600)

LONGITUDINAL COMPONENT

FOLLOW-UP 2009

FOLLOW-UP 2010

FOLLOW-UP 2011

n = 179

n = 144

n = 137

METHOD - design



CROSS-SECTIONAL SURVEYS

Population survey 2009
(N=11 888)

Population survey 2012
(N=11 600)



Method - Measures



Measures	Survey 2009	Follow-up 2009	Follow-up 2010	Follow-up 2011
Gambling patterns	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PGSI (Ferris & Wynne, 2001)	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Alcohol (AUDIT) (Babor et al., 2001)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cannabis use	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Use of services for gambling problems				
Health professionals		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Helpline		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Websites		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Treatment centres		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Life events (Holmes & Rahe, 1967)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Demographics	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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Statistical analyses



- Trajectories : estimating change
 - Description of change
 - General linear growth models – hierarchical
- Life events and gambling severity
 - SEM – Cross-lagged regression models

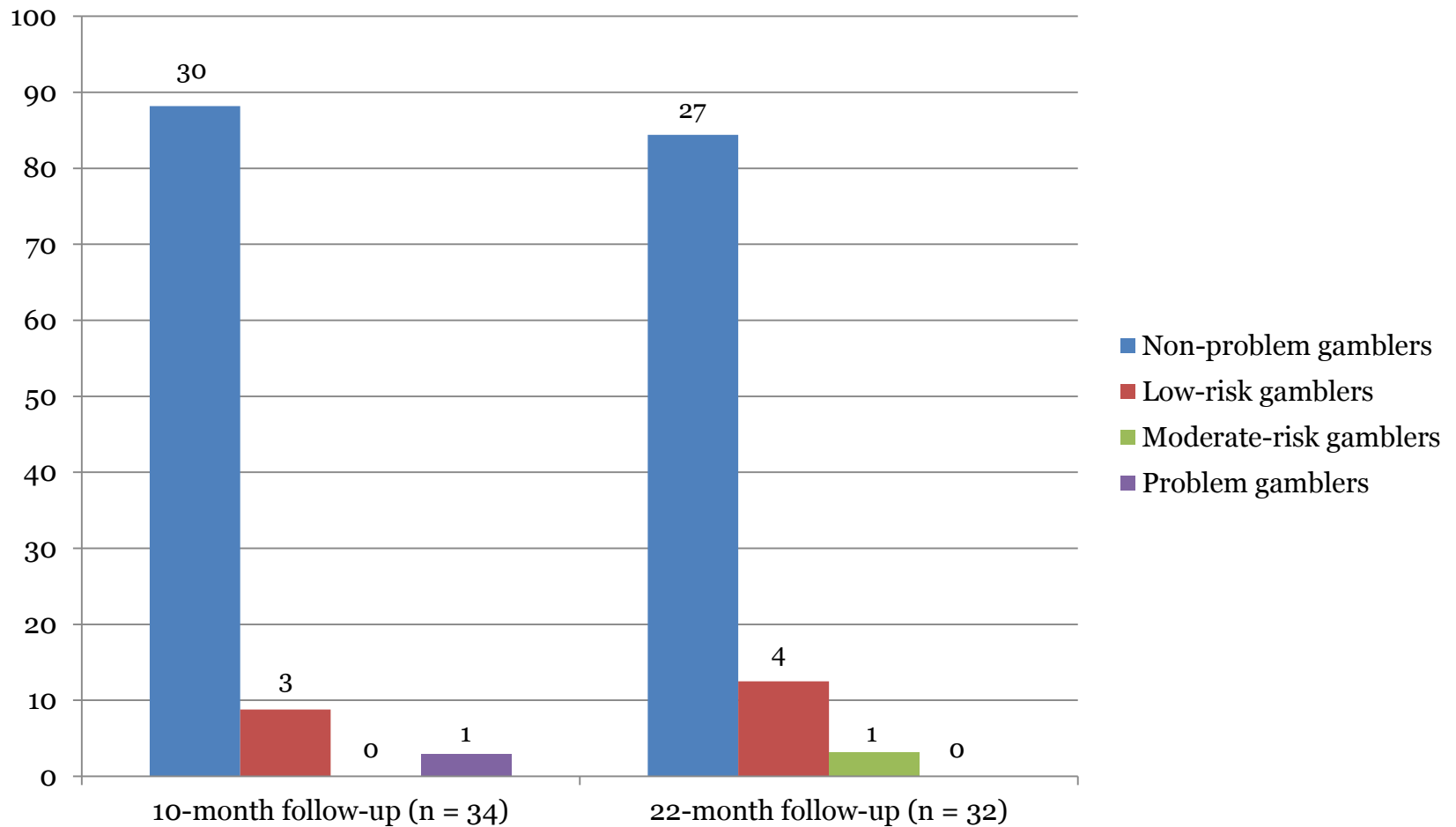
DESCRIPTIVE ANALYSES



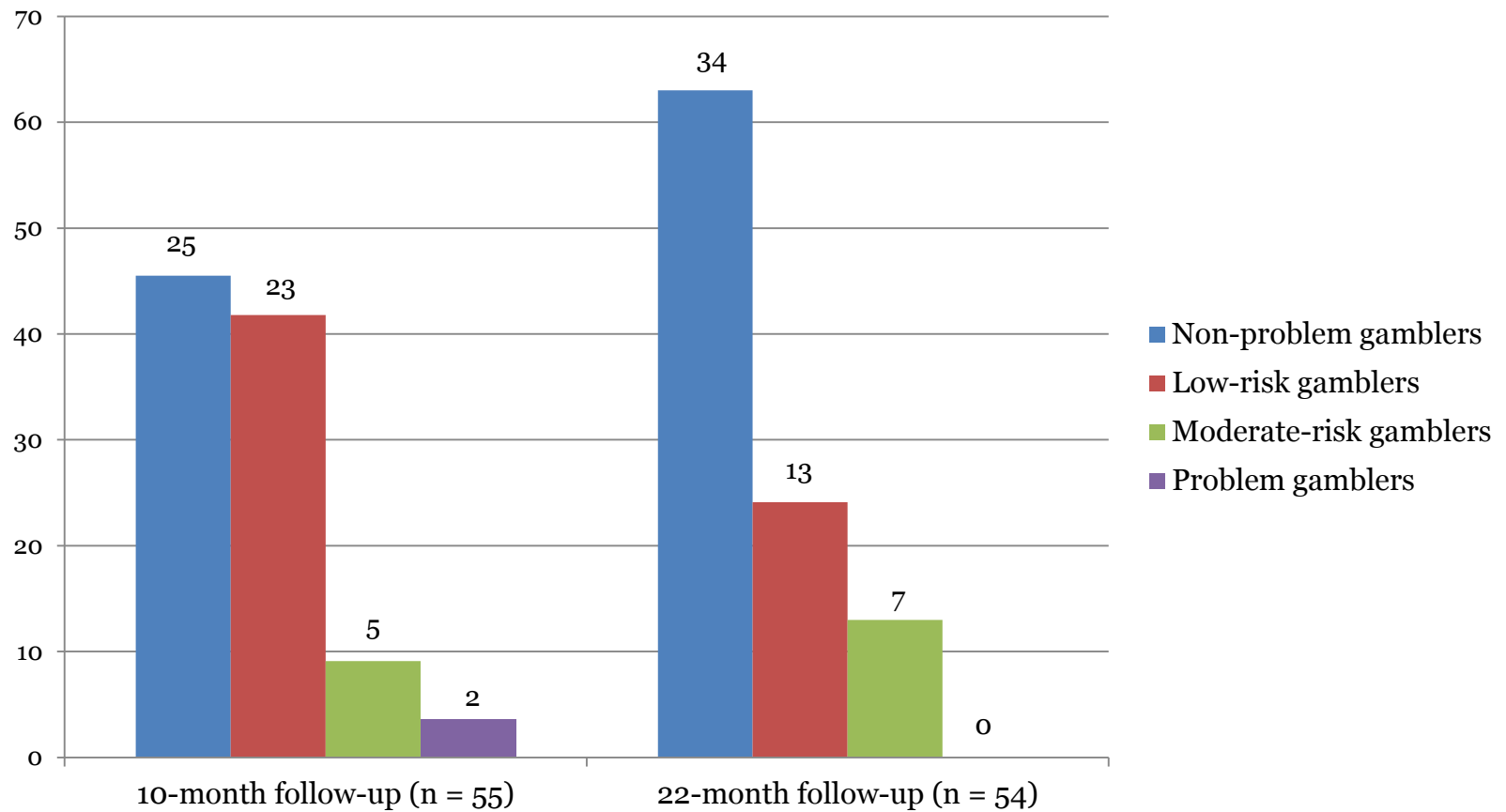
Gambling trends

Overview

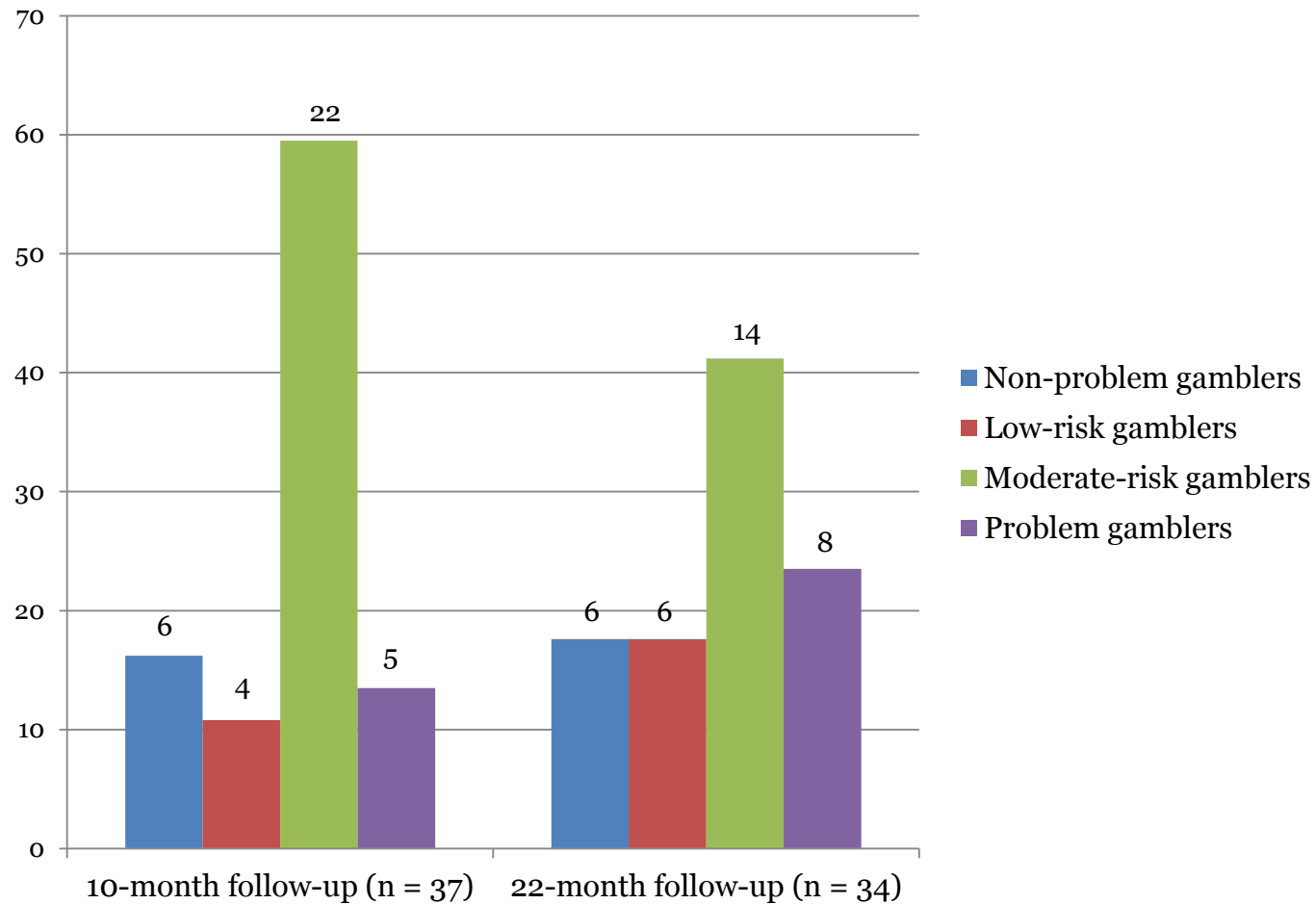
Status of non-problem gamblers at follow-ups



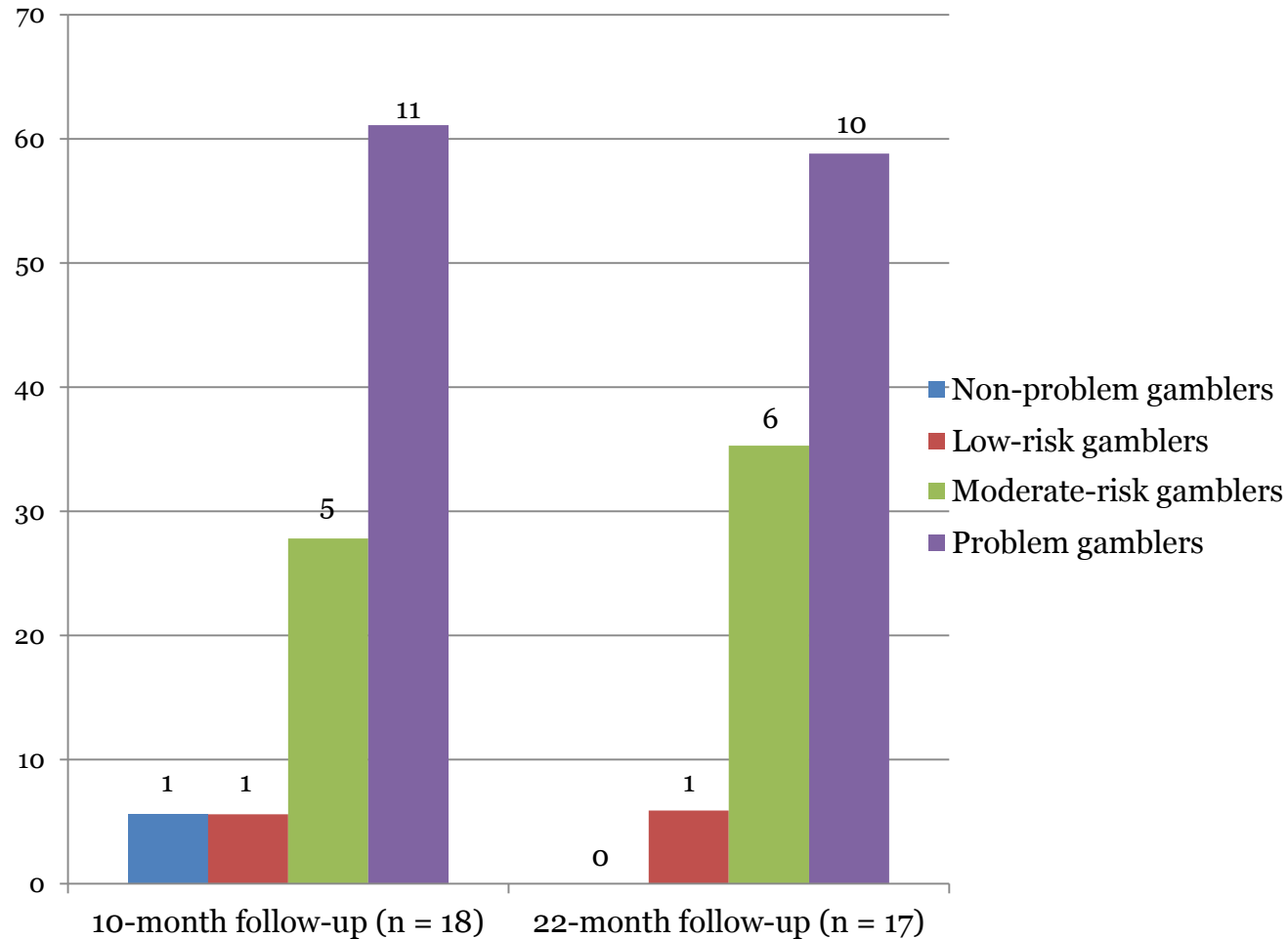
Status of low-risk gamblers at follow-ups



Status of moderate-risk gamblers at follow-ups



Status of problem gamblers at follow-ups



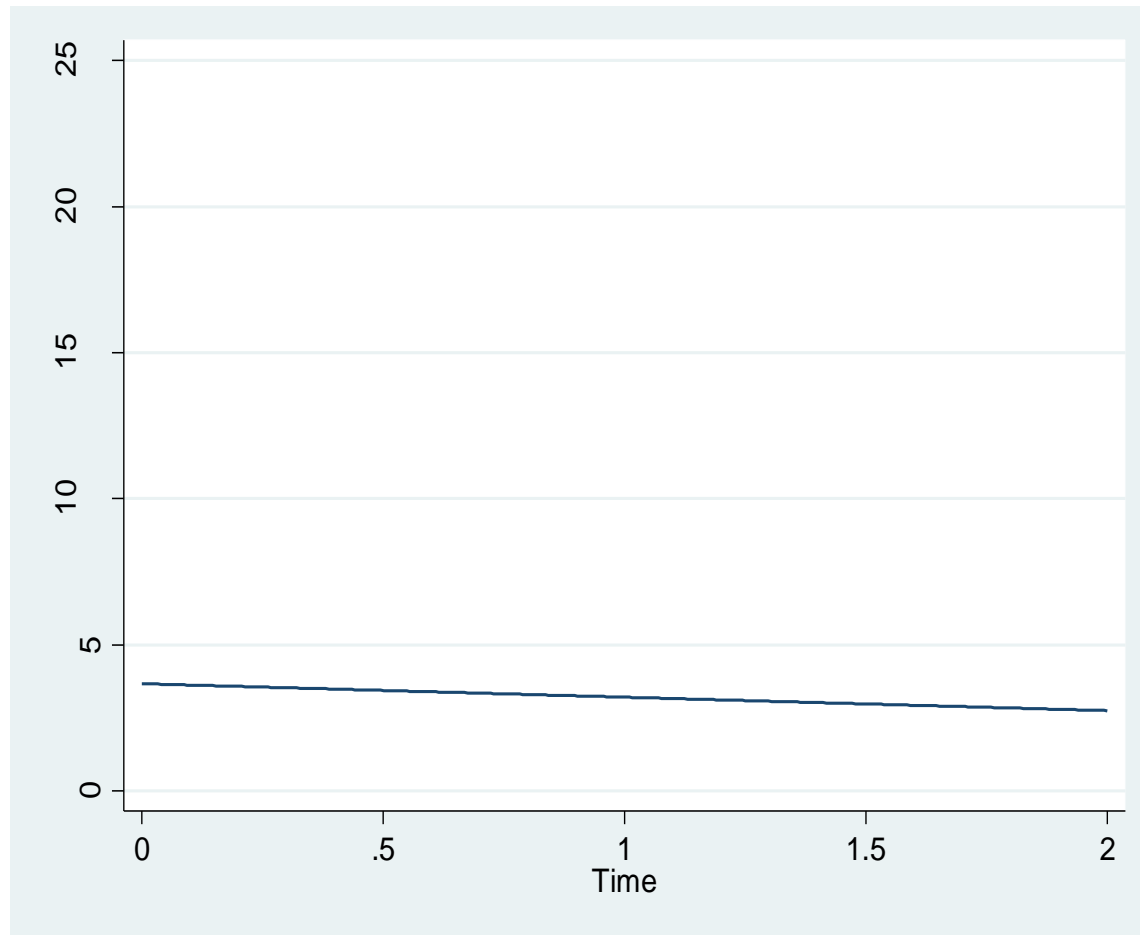


LINEAR GROWTH MODEL

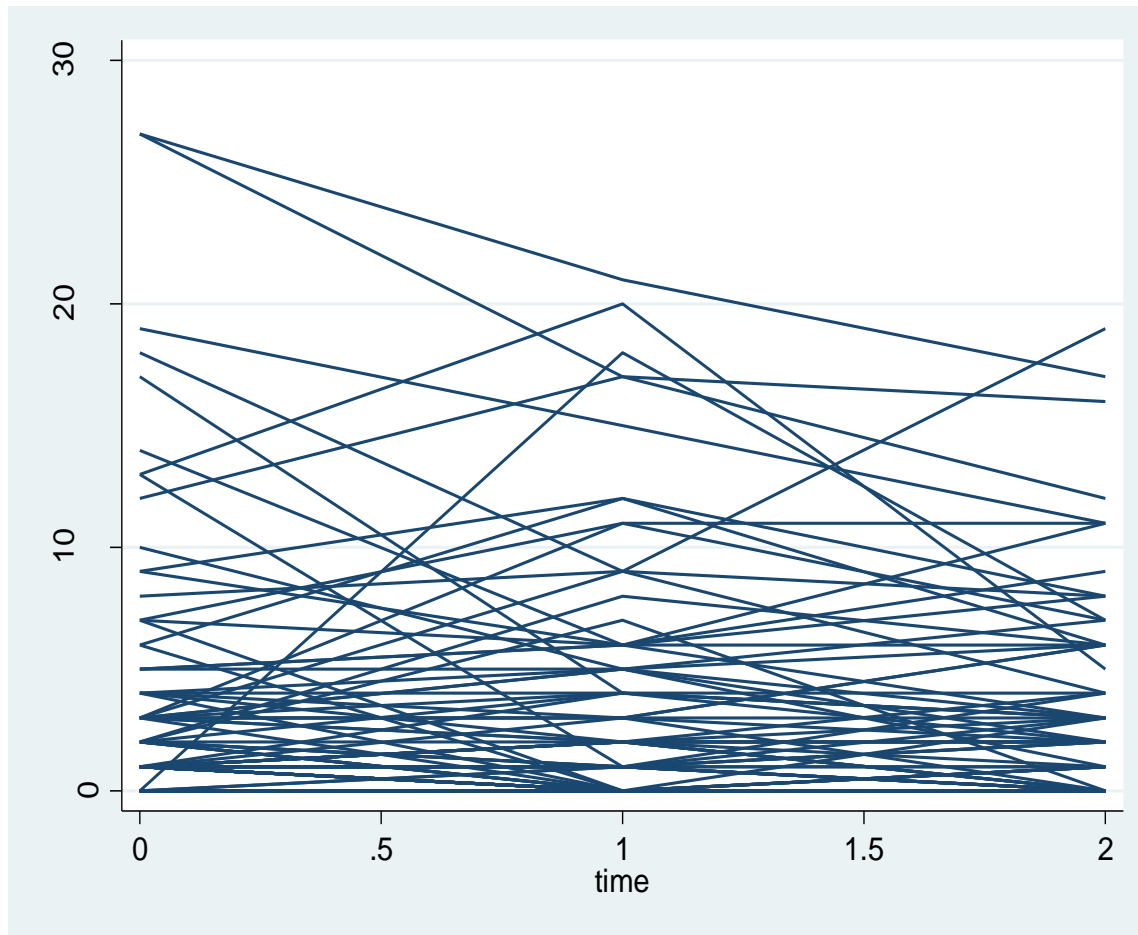
Gambling trends

General model

General trends



General trends



General trends



- Unconditional Means Model

- ✦ Estimated between-person variance $\sigma_2^2 = 17.191$ (77%)
- ✦ Estimated within-person variance $\sigma_1^2 = 5.029$ (23%)

CROSS-LAGGED REGRESSION MODELS



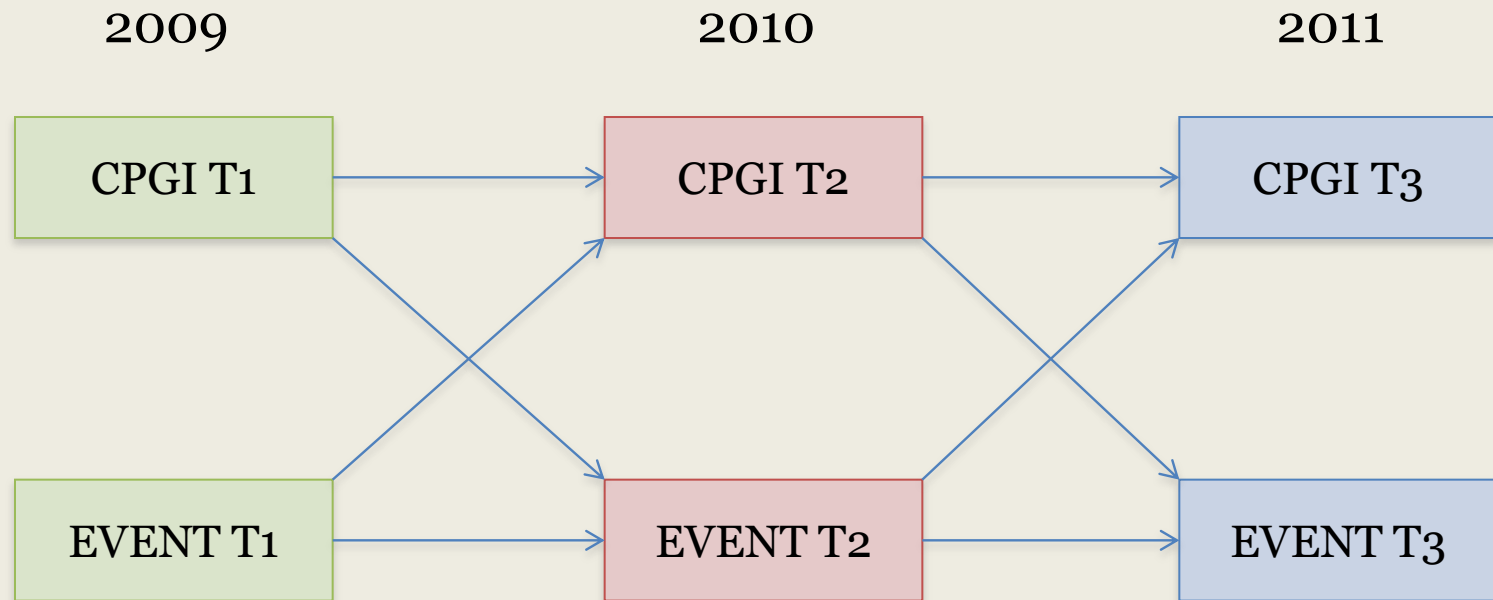
**Effects of life events on severity
scores**

Significant life events

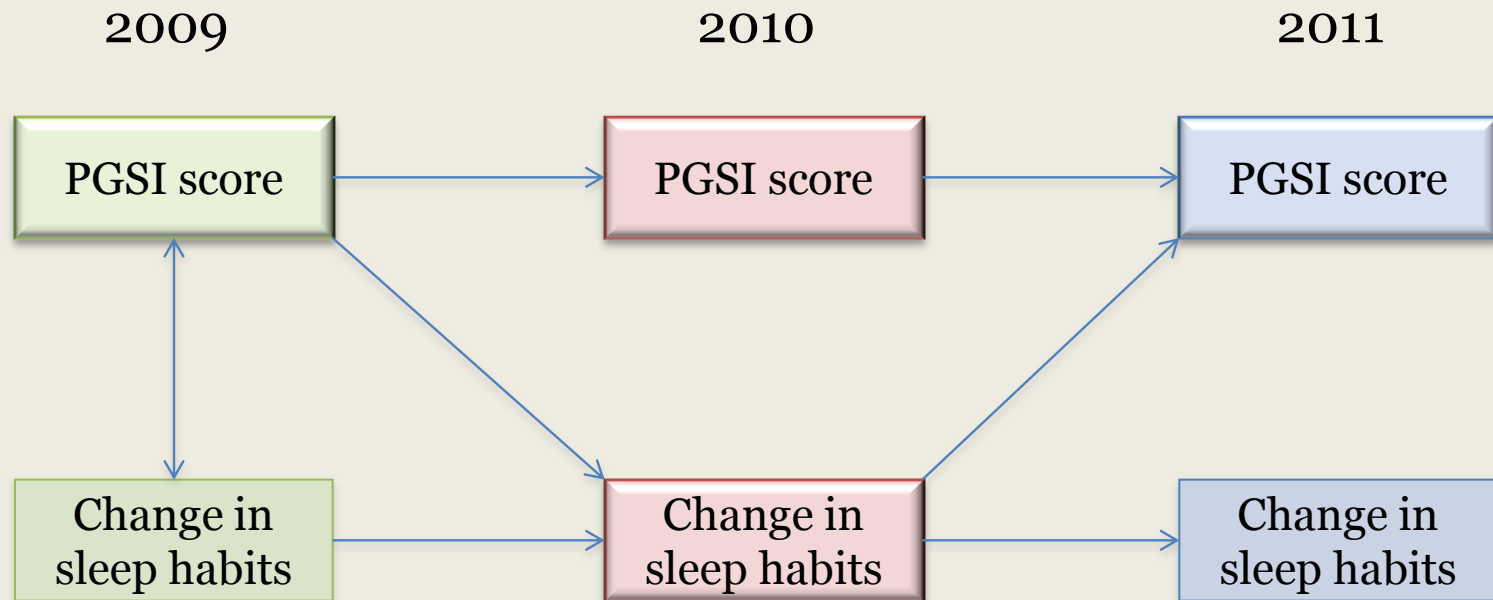


- Lifestyle
 - Change in sleep habits
 - Change of place of residence
 - Change in financial situation
- Work domain
 - Difficulties with the boss

Proposed model



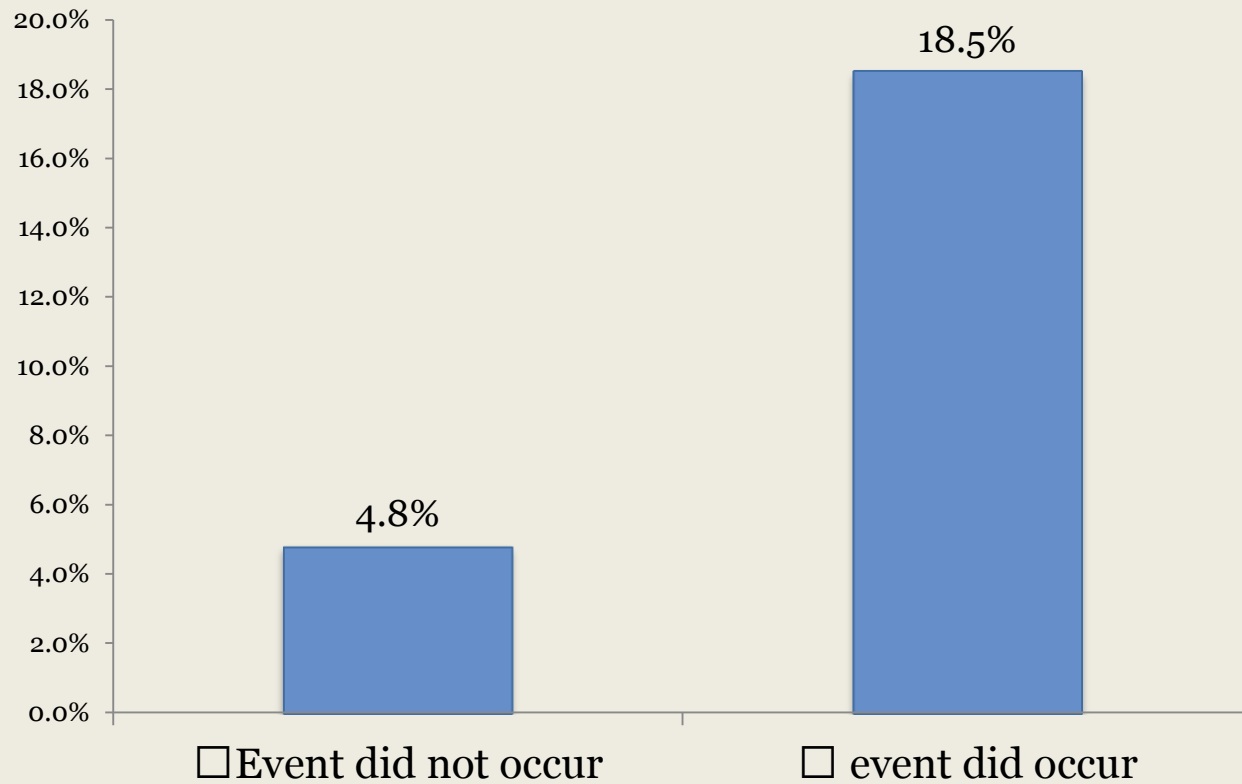
Change in sleep habits



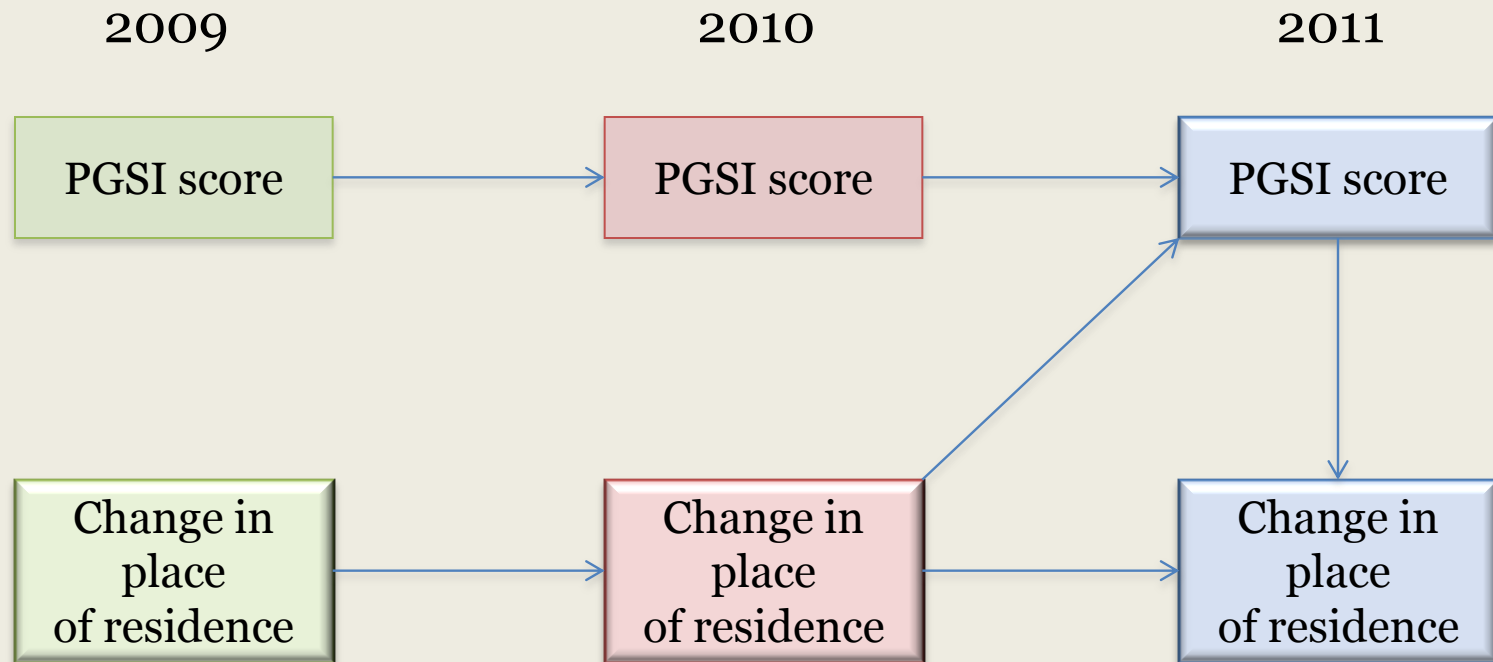
Increase in severity of problem gambling From low-risk to problematic



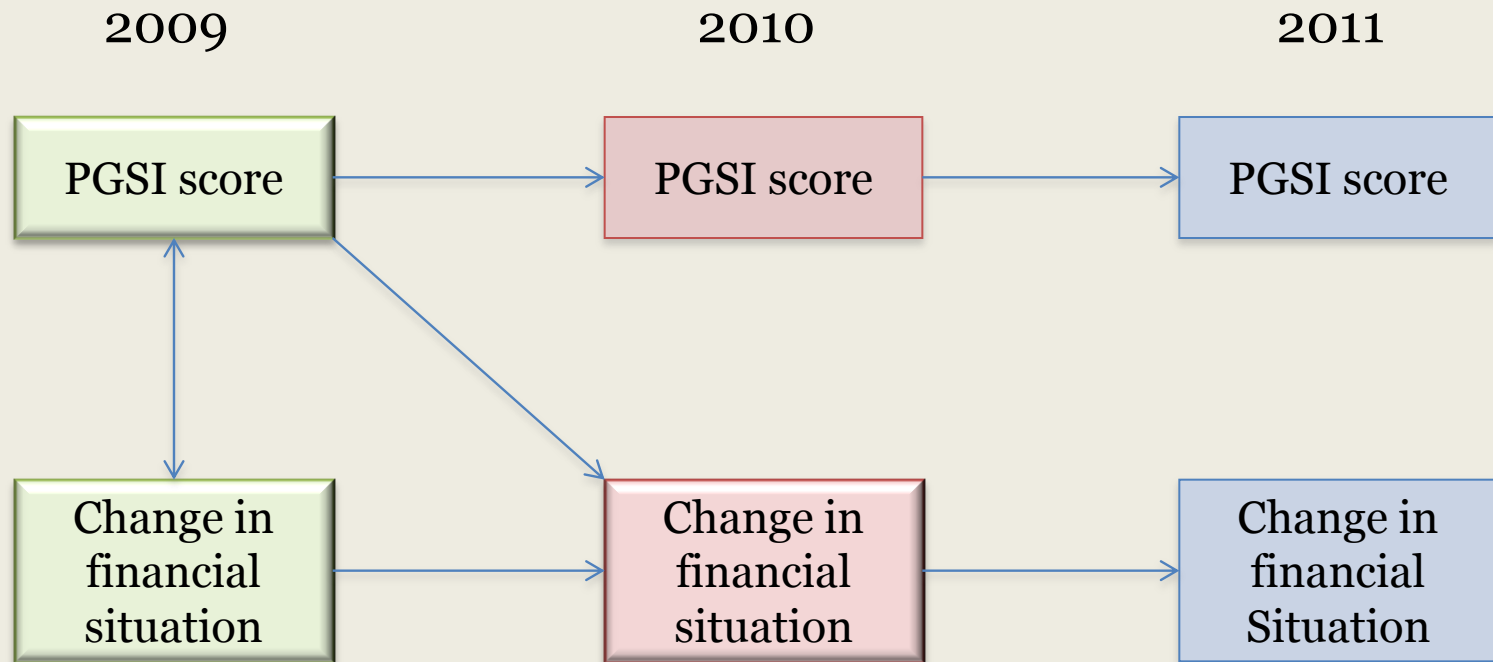
Change in sleeping habits



Change in place of residence



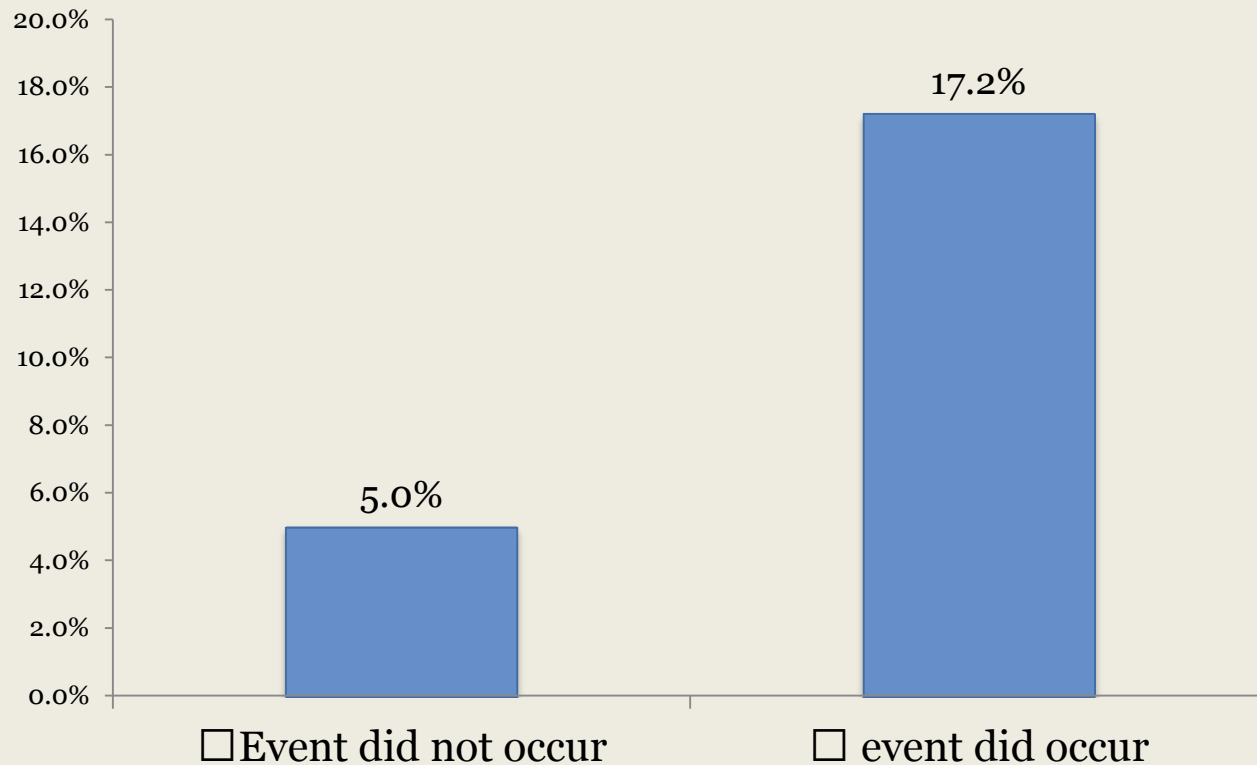
Change in financial situation



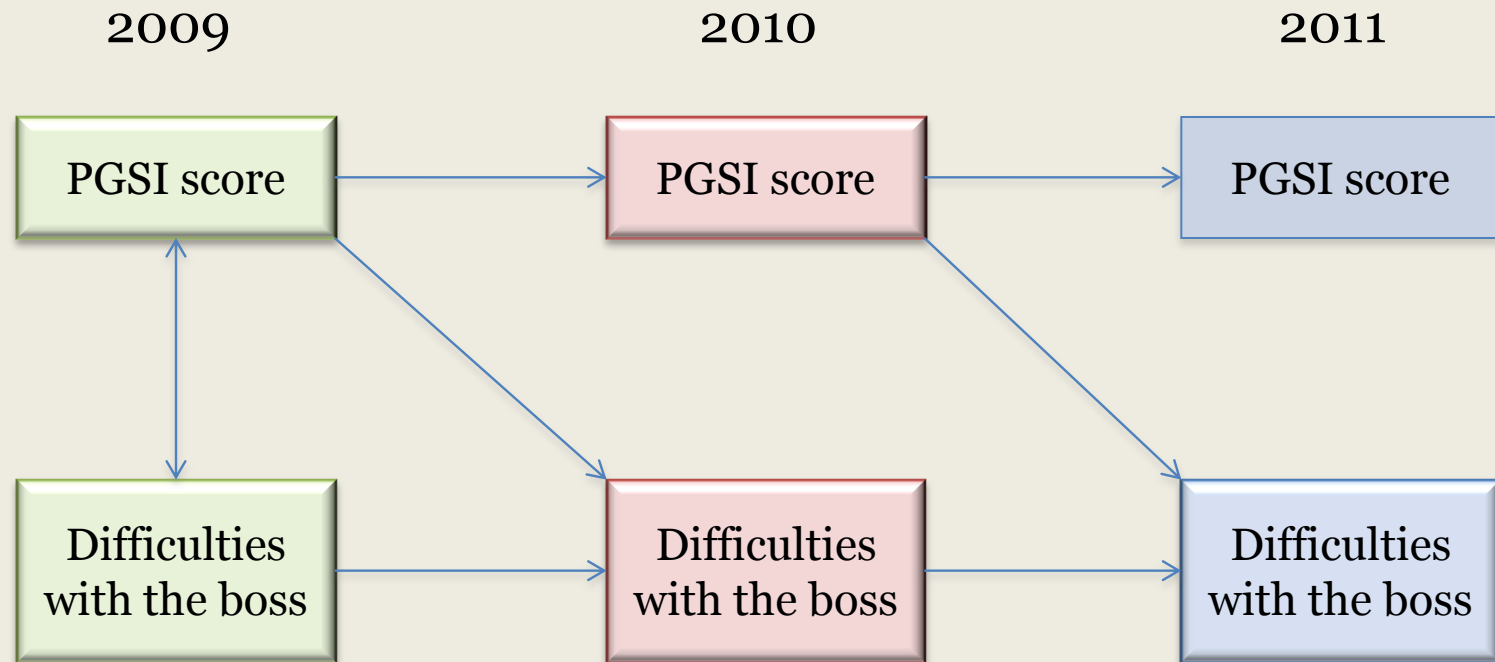
Increase in severity of gambling problems From low-risk to problematic



Change in financial situation



Difficulties with the boss





CONCLUSIONS

Do gambling problems change over time??



Overall decreasing trends among all gamblers

Do gambling problems change over time??



There is a gradient in change...

Non-problem gamblers change the least

Non gamblers and non problem gamblers seem more stable

(Wiebe, 2009; Winters, 2005);

Do gambling problems change over time??



Moderate-risk gamblers move in both directions

The at risk are heterogeneous with:

- Former problem gamblers who remain vulnerable
- Stabilised at-risk that should consider safer practices
- Recent onset that may move to less or more severe status

Conclusion



Social origins ‘triggers’ of gambling problems

Stressful events and positive events
are associated with change.

They may be turning points.

Future direction



- Those who have become more severe request our attention
- Latent transition models
 - Role of life events in increasing severity
 - Role of life events in decreasing severity

Acknowledgment



- Dr Catherine Paradis
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