



A LONGITUDINAL STUDY OF ALBERTA ELECTRONIC MACHINE GAMBLERS

By

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Outline of the LLLP

What is the LLLP?

--Launched in 2006 the LLLP is a five age cohort, four data collection wave longitudinal study that examines the incidence and determinants of gambling and problem gambling. The study was guided by four broad research questions:

- 1. What are the normal patterns of continuity and discontinuity in gambling and problem gambling behavior?**
- 2. What bio-psychological variables and behavior patterns are most predictive of current and future responsible and problem gambling?**
- 3. Are there distinct sub-groupings of gamblers and problem gamblers with different trajectories and predictors?**
- 4. What etiological model of problem gambling is best supported by the longitudinal findings?**

Study Design

- **5 age cohorts (13-15, 18-20, 23-25, 43-45 and 63-65)**
- **Data collection done by 1) an initial telephone screening procedure; 2) a face-to-face in-depth interview; and 3) computer-based and internet surveys. Four regions of the province sampled (Edmonton, Calgary, Lethbridge and Grand Prairie areas).**
- **Sample size: wave 1 = 1,808, wave 2 = 1,495, wave 3 = 1,316 and wave 4 = 1,343.**
- **Multiple measures used to assess: 1) gambling behavior; 2) mental health/personality/coping; 3) general health; 4) substance use/risky behavior; 5) family relationships; 6) societal factors; 7) cognitive factors; 8) activity participation; and 9) demographics.**

The EGM Study

Context

- ❑ **Illegal in Canada until 1985**
- ❑ **VLTs Introduced in Alberta bars and lounges in 1992 and capped at 6,000 in 1996.**
- ❑ **Slots allowed at Alberta casinos and racetracks in 1996 but no cap.**
- ❑ **At present there are 5,991 VLTs and 13, 505 slots in the province.**
- ❑ **EGMs produced a net profit of \$1.37 billion in 2011-12 (\$500 million VLTs and \$857.4 million slots) which accounted for 84% of provincial gambling revenue.**
- ❑ **A remarkably high % of this revenue comes from at risk gamblers VLTs 77% and slots 72% (Williams et al., 2011).**

Literature Review

- **EGMs reputed to be the most hazardous gambling format.**
 - Designed that way (Dow Schull, 2012).**
 - Impaired control “a natural consequence of regular high intensity EGM play” (Dickerson et al., 2003).**
 - Addictive potency enhanced by—easy accessibility, structural characteristics, capacity to deliver players into the “zone” (Harrigan, 2008; Parke & Griffiths, 2006; Livingstone, 2005; Dow Schull, 2012).**
 - Link between no. of EGMs per capita and PG prevalence rates.**
 - Disproportionate % of revenues contributed by at risk players.**
 - Dow Scull contends that EGM addiction occurs through the interaction of a vulnerable gambler with a machine designed to addict, in a soothing, ambient environment abetted by player loyalty programs and govt's. hunger for revenues.**

Research Aims

- **Does EGM play pose a greater risk for problem gambling than other gambling formats?**
- **Does frequency of EGM play engender an elevated risk for problem gambling compared with occasional EGM play?**
- **What is the association between frequency of EGM play and problem gambling, health problems, and gambling fallacies compared with non-gamblers and those who gamble but not on EGMs?**

Gambling Categories

(four adult cohorts)

- **Non-gambler**
- **Gamble but not in the past year**
- **Gambled in past year but not on EGMs**
- **Low frequency EGM player [less than once a month and \$20 or less spent per session]**
- **Moderate frequency EGM player [about once per month and \$21 to \$80 spent per session]**
- **High Frequency EGM player [2 to 3 times per month or greater and \$81 to max spent per session]**

Results

- **Key Differentiating Factors**
 1. **PGSI score**
 2. **Remember a big win or a loss**
 3. **Smoking behavior**
 4. **Median amount of largest loss**
 5. **Age**
 6. **Gender**
 7. **Location**

Factors Expected to Differentiate But Did Not

1. **Gambling fallacies score**
2. **Preference of who they gambled with**
3. **General health**
4. **Gambling motivations**

Table 1

PGSI Scores

		NEGM	EGM Low	EGM Mod	EGM High
	W1	1.5%	3.7%	8.0%	26.8%
		n=687	n=187	n=88	N=97
Problem Gambler (5plus)	W2	2.5%	3.5%	5.4%	18.2%
		n=554	n=144	n=111	n=121
	W3	2.7%	2.7%	10.3%	18.3%
		n=488	n=152	n=71	n=72
	W4	2.3%	0.7%	8.1%	19.5%
		n=533	n=139	n=67	n=83

Table 2

Median of Largest Amount Spent in One Session

(Average over 4 waves)

	NEGM	EGM Low	EGM Mod	EGM High
Median Spent	\$130	\$75	\$160	\$360

Table 3

Smoking Behaviour (Average over 4 waves)

	NGS	GNPY	NEGM	EGM Low	EGM Mod	EGM High
Daily/occasional	10%	15%	22%	28%	33%	47%
Former/Never	90%	85%	78%	72%	67%	53%

Age Considerations

- **High and moderate EGM play is most pronounced in the 43 – 45 age cohort.**
- **The 63 – 65 age cohort is the least likely to engage in EGM play**
- **High EGM play peaks with the 43 – 45 age cohort then drops off significantly for the next age cohort**

Gender Considerations

- **Females are by a 2 to 1 margin more likely to be non-gamblers**
- **Females are somewhat more likely to be EGM gamblers (this applies to all EGM play categories through all 4 waves)**

Concluding Thoughts

- **Frequency of EGM play is associated with problem gambling.**
- **Gambling fallacies are prevalent across all categories, not just problem gamblers.**
- **Being female and middle-aged are related to high frequency EGM play.**