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Rapport de recherche

PROGRAMME ACTIONS CONCERTÉES

Évaluation de l'impact d'un programme de traitement des problèmes de jeu offert à la population adolescente québécoise

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Concerted actions program

Annex to full research report

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Evaluation of a treatment program for problem gambling offered to the Quebec adolescent population

(French title: *Évaluation de l'impact d'un programme de traitement des problèmes de jeu offert à la population adolescente québécoise)*

Project # 124492

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Impacts socioéconomique des jeux de hasard et d'argent- Phase 2

Annex 1: Instruments

Instruments développés par nous

- Mes jeux préférés; temps 1, 3 et 4
- Questionnaire sur les attitudes et les cognitions; temps 1, 2 et 4
- Sentiment d'appartenance à l'école
- Relation parent-enfant, évalué aux temps 1 et 4
- Questionnaire de l'implication parentale; évalué au temps 2 par les intervenants
- Questionnaire de satisfaction au regard du programme de traitement, évalué au temps 2 et 4

Instruments standardisée

- DSM-IV-J; dépistage de problèmes de jeu; temps 1, 2, 3 et 4 *
- Échelle de désespoir de Beck; évalué aux temps 1, 3 et 4
- Échelle de dépression de Reynolds; évalué aux temps 1, 3 et 4
- Conners' Adolescents rating scale (version longue), évalué au temps 1

Annex 2: Detailed Results

Participant information

Of the initial 14 participants, 5 were male participants, and 9 female. Five were from St. Celestin, 7 from Montreal, and 2 from the Quebec treatment centre. The participants were asked to indicate their preferred gambling activity. Seven (50%) indicated poker, one indicated joker rummy (card game), two indicated dice, two indicated lottery scratch tickets, one indicated games of skill, and one did not indicate their preferred form of gambling. Their reported reasons for gambling included: winning money (42.9%), arousal (35.7%), escape (7.1%), with 17% indicating a combination of those reasons. One individual (7%) reported being arrested once or twice, and 50% (7) reported having been arrested multiple times. The types of crimes committed are primarily financial in nature and/or property crimes.

Four individuals (28.6%) indicated that they have a parent who has a gambling problem, 7 (50%) indicated they have a parent with an alcohol problem, and 7 (50%) reported having a parent experiencing a drug problem. *Individuals who perceived their parents to be suffering from all or a combination of two of these addictions failed to complete therapy.*

The Conners Behavior Rating Scale was administered to all participants upon entering the treatment program but this measure does not serve to distinguish therapy completers from those who withdrew. The risk behavior profile of the participants was ascertained with a “comportements a risque” scale developed for the purpose of this study. It was our intention to see

whether a higher risk profile would be associated with gambling compliance or therapy effectiveness. Due to the small numbers of participants, it is difficult to draw any conclusions. Out of a total score of 50, those who did not complete therapy obtained a mean score of 37.5, compared to a mean score of 34.8 for therapy completers. It appears as though those who dropped out of the program early were individuals who engaged in slightly more risky behaviors than those who completed the therapy.

Key Results

Section 1- Gambling-Related Cognitions

Skill: The amount of skill perceived to play a role in different types of gambling activities was ascertained. There was a total of 5 questions inquiring about percentage of skill affecting the outcome of various activities (VLT, poker, lottery, sports betting, casino). Each question offered the option of indicating 0% to 100% in increments of 25%. The 5 questions were totalled together to ascertain a global score (score range is 0-50). The greater the score, the greater the amount of perceived skill. In general, it was hoped that the mean score decreased after intervention. The results support this finding (T1 15.54 (n= 14),T3 11.88 (n=4), T4 5.00 (n=1)). A GLM repeated measures analysis between Time 1 and Time 3 indicates a significant within subjects effect ($F= 19.59$, $df= 1$, $p< .047$)

Luck: The amount of luck perceived to play a role in different types of gambling activities was similarly obtained. There was a total of 5 questions inquiring about the amount of luck impacting the outcome of various activities (VLT, poker, lottery, sports betting, casino). Each question offered

the option of indicating 0% to 100% in increments of 25%. The 5 questions were totalled together to obtain a global score (score range is 0-50). The greater the score, the greater the amount of perceived luck. It was expected that the mean score would increase after intervention. The results confirm this finding (T1 32.5 (n= 14), T3 41.9 (n=4) T4 45.0 (n=1)). A GLM repeated measures analysis between Time 1 and Time 3 indicates a significant between subjects effect (F= 84.04, df= 1, p<.011)

Erroneous perceptions; The extent to which problem gamblers have erroneous perceptions about gambling was assessed with 7 questions incorporating a 7 point Likert scale. Possible scores range from 7 to 49, with a higher score reflecting more erroneous beliefs. Scores decrease after intervention (T1 25.43 (n=14), T2 13.75 (n= 4), T4 13.00 (n=1). A GLM repeated measures analysis between Time 1 and 3 indicates a significant within subjects effect for the intervention (F= 72.34, df=1, p<.003).

Section 2- Control over future gambling

Therapeutic success was to be assessed via two methods: a questionnaire designed to tap into each individuals' intentions and sense of control over their gambling (completed at T2 immediately after the 6 week therapy), the re-administration of the DSM-IV criteria for problem gambling at T3 (two months after completion of therapy, and T4 (six months after the termination of therapy).Since there are very few participants who completed all three testing sessions, the results are best observed qualitatively.

The results are presented below:

	YES	NO
Do you often think of gambling?	50%	50%
Do you think you'll gamble once you leave the center?	20%	80%

In order better assess their perceived degree of personal control over their future gambling, participants were asked to indicate where they rank on a 5 point Likert scale (ranging from 1 "absolutely incapable of controlling my gambling " to 5 "absolutely capable of controlling my gambling"). Two respondents endorsed a value of three (midpoint concerning their self-control) and seven respondents endorsed a value of 4, suggesting being fairly confident about their degree of control. As a result, the majority of youth who completed therapy feel much more confident about controlling their gambling.

With respect to the DSM-IV, one person did not improve at all from T1 to T3, whereas 3 others showed a decrease in DSM-IV criteria endorsements. Overall, only two of the 14 participants resulted in a DSM-IV score of 0, one of which was only indicated at T4. There is insufficient information to draw any meaningful conclusions, other than the obvious fact that one participant showed no therapeutic gain with respect to problem gambling symptoms.

Number of endorsed DSM-IV criteria for pathological gambling

T1	T3	T4
6	6	n/a
5	2	n/a
4	0	n/a
3	1	0

In summary, of those who completed therapy, 80% have no intentions of ever gambling again, 22% remain unsure of their ability to control their

gambling, and 78% reported being fairly confident that they are capable of controlling their behaviour towards gambling. One participant showed no gains with respect to problem gambling indices.

Section 3- Emotional health

Depression and hopelessness were assessed at all times. The Table below presents the scores for the Beck Hopelessness Scale (BHS) and the Reynolds Adolescent Depression Scale (RADS) at the various assessment points. The values for those individuals who did not complete therapy are also included.

Participant	**BHS T1**	**BHS T2**	**BHS T3**	**BHS T4**	**RADS T1**	**RADS T2**	**RADS T3**	**RADS T4**
1*	7				56			
2*	n/a				26			
3*	7				40			
4*	2				25			
5*	6				91			
6	14	12			72	63		
7	4	2			29	28		
8	2	2			44	25		
9	8	2			48	14		
10	19	13			67	54		
11	13	4	3		61	35	34	
12	6	3	3		40	23	9	
13	17	6	7		68	25	17	
14	12	14	7	1	79	59	50	46
Mean (those who completed therapy)	19.8	6.4	2.2	1	56.4	36.2	12.2	46

* = did not complete therapy
n/a = did not complete form

The BHS is an indicator of suicidal risk. A score ranging from 0-3 suggests no risk, 4-8 mild risk, 9-14 moderate risk, and 15+ indicates a definite suicide risk. Initial T1 scores suggest that three individuals were are

moderate risk of suicide and one individual was at definite risk for suicide at the outset of the study, prior to therapy. Fortunately, all of these individuals did follow through with the therapeutic intervention. An observation of their scores indicates a decrease in reported feelings of helplessness for everyone who was at any level of suicide risk. The mean score of those who completed therapy decreases from 19.8 at T1, 6.4 at T2, and 2.2 at T3. A GLM repeated measures analysis of within subjects effects supports the observations of positive effect of therapy from T1 to T2 ($F= 8/52$, $df = 1$, $p<.019$), and from T1 to T2 to T3 ($F= 15.47$, $df= 1$, $p<.029$).

The RADS is an indicator of depressive symptomatology, with a cut-off score of 60-69 indicating mild to moderate clinical depression, and 70+ indicating moderate to severe clinical depression. An examination of the scores indicates that one individual with severe depression withdrew from the program and did not complete therapy. Of those who did complete therapy, three individuals reported mild to moderate levels of clinical depression at the outset of the study, and two individuals indicating moderate to severe depression. RADS scores obtained at T2 and T3 indicate a beneficial effect, with scores decreasing over time for all individuals. Means scores for those who completed therapy are 56.4 at T1, 36.2 at T2 and 12.2 at T3. A GLM repeated measures analysis of within subjects supports the observations of positive effect of therapy from T1 to T2 ($F= 29.97$, $df = 1$, $p<.05$), and from T1 to T2 to T3 ($F= 37.38$, $df= 1$, $p<.026$).

Section 4 - Family relationships

The perceived level of participation of parents within the therapeutic process was assessed. This data suggests that 66.7 % of the adolescents reported that their mother showed adequate participation, 22.5% felt their mothers were over-involved with the therapeutic process, and 11.1% felt their mothers did not participate enough. With respect to fathers, 62.5% believed their fathers showed adequate degrees of participation, 12.5% felt their father's participation was insufficient, and 12.5% reported that their father's did not participate at all. These questions were not applicable to those individuals having no fathers.

Adolescents were asked to indicate if they believed the therapeutic process improved their parent-child relationships. In particular, they were asked whether they felt encouraged by their parents, positively perceived by them throughout the therapeutic process, and whether the support from their parents contributed to them reaching their treatment objectives. They also were asked to indicate whether they believe that the therapy has allowed them to feel better understood by their parents. The responses to these questionnaires suggest that therapy had a favourable impact overall.

	SOMEWHAT	A LOT	N/A
Support and encouragement from my mother	88.9%		
Support and encouragement from my father	75%		
I felt perceived positively by my mother	12.5%	87.5%	
I felt perceived positively by my father		75%	25%
Encouragement of mother helped me reach objectives	22.2%	55.6%	
Encouragement of father helped me reach objectives	37.5%	37.5%	25%
Therapy has allowed my mother to know me better	25%	75%	
Therapy has allowed my father to know me better	37.5%	37.5%	25%
I feel better understood by my mother		100%	
I feel better understood by my father	25%	50%	25%

n/a = not applicable

Parent-Child relationship: The overall parent-child relationship was assessed using 12 questions inquiring about issues such as respect, feeling accepted for who they are, parental awareness of their feelings, ability to communicate openly with parents, etc. Each question offered 5 response options yielding a possible range of scores from 12-60. The higher the score, the stronger and healthier their perceived relationship with their parents.. As was anticipated, scores increased as a result of intervention (T1 37.84 (n= 14), T2 39.66 (n= 9), T3 45.25 (n= 4)). A GLM repeated measures analysis assessing change between times 1, 2 and 3 yielded significant within subject effects ($F= 153.27$, $df= 1$, $p<.006$).

Family functioning: The perceived functioning of the overall family was assessed with a 35 question instrument. Questions tapped into aspects of family including helping and supporting each other, amount of conflict, amount of structure, etc. Possible range of scores is 0-35, with a higher

score reflecting more positive family functioning. The means indicate a positive impact resulting from therapy (T1 13.46 (n= 13), T2 21.56 (n=9), T3 21.00 (n=4), T4 26.00 (n=1)). GLM repeated measures analysis assessing change between times 1, 2 and 3 yielded significant within subject effects (F= 587.53, df= 1, p<.002).