

# A KEY INDIVIDUAL-TO- COMMUNITY LINK: THE IMPACT OF PERCEIVED COLLECTIVE CONTROL ON ABORIGINAL YOUTH WELL-BEING<sup>1</sup>

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## ABSTRACT

Colonization of Aboriginal peoples has created serious challenges for individuals and communities, particularly with regard to issues of independence and control. Currently there is a pressing need to address these issues, on both the individual and group (or collective) levels. Research in the general population highlights the role of perceived personal control in well-being, and hints at a similar role for perceived collective control. The present research investigated the impact of perceived collective control on the well-being of Aboriginal youth. Residents of two Cree communities in northern Manitoba collaborated in the research. Together we developed two surveys on youth well-being, completed by students in grades 7 and up. The results of each study indicated that greater perceived individual inter-

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1. Note: This research was conducted in conjunction with two First Nations (Cree) communities in northern Manitoba. Community representatives played an integral role in developing and carrying out the research. However, the communities are not identified in this article to protect their privacy.

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nal control was associated with greater psychological well-being. However, multidimensional measures of control employed in Study 2 indicated an association between greater perceived individual control over drinking and *decreased* well-being. Additionally, greater perceived group control was associated with greater well-being, and the effect of group control on well-being was at least partially accounted for by individual control. Overall, this research indicates the need for greater consideration of group factors in efforts to enhance and support Aboriginal youth well-being.

**Keywords:** collective control, Aboriginal youth, well-being

## INTRODUCTION

Aboriginal people in Canada, and throughout North America, confront serious individual and group, or collective, challenges arising from governmental policies of assimilation and colonization over many centuries. These experiences have contributed to a profound sense among many Aboriginal people that they have lost control of their lives and communities (Aboriginal Healing Foundation, 2005; Royal Commission on Aboriginal Peoples, 1996; York, 1992). For many Aboriginal people, colonization has resulted in a loss of independence and power, including, in many cases, the loss of traditional cultural ways. Indeed, the assimilation policies of the Canadian government (and the governments of other countries) have amounted to systematic efforts to undermine the autonomy and independence of Aboriginal peoples.

Consequently, there is a pressing need to gain new insights into the effects of autonomy loss along with new and constructive solutions. Since colonization has affected not only individuals, but entire groups of Aboriginal people, it may be useful to consider psychological factors at *both* the individual and group (i.e., community) level that have an impact on well-being. The guiding principles for research in Aboriginal communities, which emphasize *ownership, control, access, and possession* (OCAP; Schnarch, 2004), clearly underline the general importance of community control, and particularly community involvement in (and control over) research endeavours. While many community members recognize the need for Aboriginal people as a whole to regain their power and control, there is little research that explores how community control might affect well-being.

In the general population, there is a large body of research which supports the adaptive value of possessing a sense of personal control over important aspects of one's life. The term "personal control" refers to individuals' beliefs or perceptions that their own efforts are connected to the attain-

ment/occurrence of specific outcomes (for example, thinking that “*If I study hard, I will do well in school,*” versus thinking “*If I study hard, it will not make any difference to how well I do in school*”). Previous research has shown that greater perceived personal control is associated with:

1. better psychological and physical coping with environmental stressors (Baum, Singer, and Baum, 1981);
2. enhanced adjustment in old age (Rodin, 1986);
3. increased general happiness and satisfaction with life (Larson, 1989; Liem, 1975; Mirowsky and Ross, 1983);
4. increased motivation, optimism, and future time perspective (Pham, Taylor, and Seeman, 2001); and
5. better physical and mental health, particularly decreased incidence of mental disorders such as depression and anxiety (Weisz et al., 1989; Weisz et al., 1993; Weisz et al., 1987).

Despite this large base of research on personal/individual control, and the strong historical rationale for Aboriginal peoples to extend this understanding to the community, there is a lack of research on perceived *collective*, or *group*, control (i.e., control held by one’s group). A variety of theories related to perceived collective/group control have been investigated in the past decade, including the concepts of:

1. *collective efficacy* (Bandura, 2000), referring to group members’ beliefs about the efficacy, agency, or competence of their group, and particularly the perception of how well group members can work together to achieve desired outcomes;
2. *social capital*, referring to the social resources available to a group, as well as how a group interacts with other groups and institutions, otherwise known as bonding, bridging, and linking (Mignone and O’Neil, 2005); and
3. *communal control/mastery* (e.g., Hobfall et al., 2002), defined as a sense of efficacy and control stemming from one’s relations with others, typically viewed from a collectivist (group or community) framework.

While the concepts of collective efficacy, social capital, and communal control/mastery suggest relevant and useful findings, they focus on *ways* that group members can achieve control, but fail to address the fundamental question of *whether* individuals perceive that their group possesses the capacity for control in the first place. This basic question of whether one’s

group has the opportunity to control valued outcomes — compared to the question of ability, or “how” to control outcomes — is the dimension of control most relevant to the present definition of collective/group control. This is clearly the most relevant and pressing issue in the context of Aboriginal well-being, given the historical realities of colonization and the widespread lack of opportunities for control over many aspects of communal life.

Previous studies have not examined the role of perceived group control in the well-being of Aboriginal groups. In an influential study, Chandler and Lalonde (1998) used archival/public records information to examine the role of “cultural continuity” factors in Aboriginal well-being, which can be viewed as indicators of actual local community control. Based on a province-wide analysis of 196 Native Bands in British Columbia, they found that the more control a First Nations community had over resources — such as education, policing, and health — the lower its suicide rate, particularly among young people. This study was an important first step in addressing the impact of group control on Aboriginal well-being; however, it used only archival information rather than information gathered directly from Aboriginal people, adults or youth. While information regarding the role of actual control is important, and offers support for a role for perceived control, it can not explain *how* group control might act upon individuals’ experiences or attitudes to affect well-being. This is precisely the question the two studies sought to answer.

## RESEARCH OBJECTIVES AND HYPOTHESES

The main objective of the present research was to investigate the ways in which perceived collective control may affect the psychological well-being of Aboriginal youth, and to understand how this impact may occur. Research priorities were developed to reflect both historical realities and knowledge held by members of the participating communities. To guide the research, we hypothesized that:

1. greater perceived individual, internal (self) control will be associated with greater psychological well-being;
2. greater perceived group, internal (own group) control will be associated with greater psychological well-being; and
3. the effect of group internal control on well-being will be mediated by individual control. That is, group control is hypothesized to have an effect on well-being through its effect on individual control.

## STUDY 1

### METHOD

#### *Participants*

A total of 82 youth from two First Nations (Cree) communities in northern Manitoba participated in Study 1 in the spring of 2004; 61 youth from community A, and 21 youth from community B. There were 52 female participants and 30 males. The youth ranged in age from 12–21 years ( $M=14$  years,  $SD=1.9$ ) and spanned grades 7–12 ( $M=\text{grade } 8$ ).

#### *Procedure*

The impetus for the present research stemmed from prior working relationships between the first author and community members, who identified youth well-being as an important topic for community-relevant research. The first step in the research process was to further develop these relationships, within the research context, clarifying each partner's role, and establishing the main goals and objectives of the project. These issues were discussed at length with community representatives during community visits, and followed up via telephone and letter throughout the fall of 2002 and winter and spring of 2003, when each of the communities confirmed their participation in the project.

Once research partnerships were formally established, the next step was to gather more detailed information about local concerns and successes regarding youth well-being in each community. In-person informal interviews were held with various community members and service providers, including Chief and Council, health centre employees, community workers, youth workers, and youth themselves. Presentations of the proposed research were also given to relevant health boards and wellness committees, both within and outside of the communities.

From the information gathered in interviews, presentations, discussions, and literature reviews, an initial pool of survey questions was developed. These questions were approved by the McGill University Human Subjects Ethics Board, as well as by community representatives and the community school administrations. The questions were pilot tested in the fall of 2003 with small groups of youth in each community, and these results were used to develop the final Study 1 survey items. It was very important that youth felt comfortable sharing their thoughts and feelings, and

could be confident that their voices would be heard. As a result, the survey was designed to be simple to complete, as well as confidential and anonymous, and all participation was voluntary.

Parents were also given the opportunity to approve of or refuse their child's participation in the project. (Only one parent returned a consent form stating that she did not want her child to participate.) However, each young person was permitted to make her or his own decision to complete the survey. Since all participating youth were at least 12 years of age, this procedure allowed each young person to make the final decision about participating in the study, and further reinforced the importance of youth having a voice.

The Study 1 survey was administered in May and June 2004. The majority of the youth completed the survey through group classroom administration, either reading on their own or being led by the researcher. The survey required approximately 30 minutes to complete, after which all participants were given contact information for the researcher and for helping resources in the community, should the need for help arise.

## MEASURES

Each scale used in Study 1 (and, where applicable, also in Study 2) is detailed below. Additional items in the survey, but not noted here, include general demographic information as well as other scales unrelated to the present analyses. Unless otherwise stated, response options were based on a Likert-type scale ranging from 1–5, where 1=Not at all/Never/Strongly Disagree to 5=Very Much/Always/Strongly Agree. We based our items on existing research scales where possible, and adapted existing measures where relevant scales were not available. Adapting existing scales was a challenge, as unique sample characteristics needed consideration, such as language familiarity, life experiences, and community characteristics. Consequently, we gave priority to survey item relevance, over scale popularity.

*Well-Being (used in both Study 1 and 2)*

Well-being was measured in both studies as follows:

1. *Self-Esteem* — using 7 (Study 1) and 9 (Study 2) items taken from the Rosenberg Self-Esteem Scale (Rosenberg, 1965), categorized into positively and negatively worded items, in line with the self-enhancement and self-derogation dimensions of the scale (Owens, 1993);
2. *Positive and Negative Affect (PANAS)* — using 16 items taken from the Positive and Negative Affect Scale for Children (Laurent et al., 1999);

3. *General Happiness* — a single-item rating of subjective well-being taken from Grootaert et al. (2003), wherein participants indicated their general level of happiness, on a 5-point scale ranging from very unhappy to very happy.

*Well-Being (Study 1 only)*

*Substance Use* — To assess the frequency of participants' use of substances — including cigarettes, alcohol, drugs, and solvents — items were taken from the substance use section of the Inuit Youth Survey (Malus, Kirmayer, and Boothroyd, 1994). Participants indicated the frequency with which they used each substance, ranging from never to every day. There was also one option for those respondents who had used a substance in the past, but since quit. As the baseline of solvent use is very low compared to the other substances, frequency of cigarette, alcohol, and drug use were averaged to form a 3-item index of substance use.

*Perceived Control*

*Group and Individual Control* — To assess these concepts, we used Mirowsky, Ross, and Van Willigen's (1996) "Personal Instrumentalism" and "American Instrumentalism" scales as a base. It was essential for the control scales to maintain their brevity, while reflecting potentially relevant control issues for the present sample. Thus, the group items were adapted to reflect perceived control held by "Native people," instead of Americans. Additionally, the categorization of instrumentalism versus fatalism was expanded to more specifically reflect control held by the self (internal control), other people, as well as luck and the Creator (these latter three reflecting external control, or sources outside of oneself that may be responsible for outcomes). This last modification was particularly important, as spirituality holds a prominent place in traditional Aboriginal lifestyles. The changes resulted in a 9-item scale. The items for the Individual Control Scale were made parallel to those for the Group Control Scale, with the term "Native people's lives" simply replaced with "my life." The Group and Individual Control Scales were analyzed according to their respective subscales of internal control (Native people/self) and external control (Outsiders/Others, Luck, and Creator control). These subscales demonstrated a range of internal consistency (group internal control 3-item  $\alpha = .34$ , external control 6-item  $\alpha = .50$ ; individual internal control 3-item  $\alpha = .40$ , external control 6-item  $\alpha = .63$ )

similar to the original “Personal Instrumentalism” scale ( $\alpha=.57-.66$ ; Mirowsky and Ross, 1991).

Examples of the Group Control Scale items include: (g) *The good things in Native people’s lives are due to their own effort*; (l) *The bad things in Native people’s lives are due to outside interference*. Examples of the Individual Control Scale items include: (c) *The good things in my life are due to good luck*; (h) *The bad things in my life are due to the will of the Creator (or some higher power)*.

*Collective Efficacy* — Given the lack of an established measure of the present group control concept, a related measure was also included as a comparison for the group control items. This measure, named “Collective Efficacy” (Browning and Cagney, 2002), assesses aspects of perceived group control, but from the perspective that group members can achieve control by working together. The original 10-item measure (Sampson, Raudenbush, and Earls, 1997) has good internal consistency ( $\alpha=.80-.91$ ). In the present study, six of the seven items used by Browning and Cagney (2002) were included, maintaining adequate reliability ( $\alpha=.76$ ). Examples of the Collective Efficacy Scale items include: (a) *People in this community are willing to help their neighbors*; (c) *People in this community can be trusted*.

## RESULTS

*Hypothesis 1: Greater perceived individual internal control will be associated with greater psychological well-being.*

Perceived individual internal and external control were simultaneously regressed on well-being. Six separate regressions were conducted, one for each dependent variable measuring well-being (1-Positive Self-Esteem, 2-Negative Self-Esteem, 3-Positive Affect, 4-Negative Affect, 5-General Happiness, and 6-Frequency of Substance Use, including cigarettes, alcohol, and drugs). As Table 1 indicates, individual internal control significantly predicted positive self-esteem and positive affect, accounting for 27% and 9% of the variance in each, respectively. This finding is consistent with much of the literature regarding the adaptive role of internal control in mainstream populations. On the other hand, individual external control also predicted general happiness and decreased substance use, accounting for 11% and 9% of the respective variances.

Examining the external control subscales with a simultaneous regression of Others, Luck, and Creator control on each of the six well-being measures, perceived others control significantly predicted positive self-esteem ( $R^2=.05$ ,

**Table 1. Study 1 Multiple Regression Analyses of Individual Control and Well-Being**

		Self-Esteem		PANAS		Generally	Substance
		Positive	Negative	Positive	Negative	Happy	Use
Internal	β	.52**	-.05	.30*	-.12	.08	.06
	B	.72	-.08	.37	-.18	.13	.15
	SE	(.14)	(.18)	(.14)	(.18)	(.17)	(.29)
External	β	.17	.21	.18	-.22	.33**	-.30**
	B	.22	.31	.23	-.31	.50	-.76
	SE	(.13)	(.16)	(.14)	(.16)	(.17)	(.28)

Note. β = standardized beta coefficients. B = unstandardized coefficients. SE = standard errors.  
\*p < .05. \*\*p < .01

β=.23, p<.05) and decreased negative affect (R<sup>2</sup>=.11, β=-.33, p<.05); perceived Creator control predicted positive self-esteem (R<sup>2</sup>=.06, β=.24, p<.05) and general happiness (R<sup>2</sup>=.13, β=.36, p<.01); and perceived luck control predicted increased negative self-esteem (R<sup>2</sup>=.08, β=.28, p<.05).

These results support the hypothesis that greater perceived individual internal control is associated with greater psychological well-being (i.e., positive self-esteem and positive affect). The results also suggest that one aspect of perceived individual external control, namely luck control, was associated with decreased psychological well-being (i.e., increased negative self-esteem). However, contrary to expectations, the results additionally indicated that two aspects of greater perceived individual external control – Others and Creator control – were associated with *greater* psychological well-being (increased self-esteem and decreased negative affect, and increased self-esteem and general happiness, respectively).

In summary, the overall pattern of these results suggests a pivotal role of greater perceived individual internal control in well-being, as well as a potential role for control perceived through other people and the Creator. However, perceiving control through luck, or randomness, does not appear to be supportive of well-being.

*Hypothesis 2: Greater perceived group internal control will be associated with greater psychological well-being.*

Table 2 presents the findings for perceived group internal and external control simultaneously regressed on well-being (measured as in Table 1). Consistent with the hypothesis, perceived group internal control significantly predicted positive self-esteem, accounting for 7% of the variance, and marginally significantly predicted positive affect, accounting for 5% of the

variance. Note that the measure of collective efficacy also significantly predicted positive self-esteem when regressed alone ( $R^2=.06$ ,  $\beta=.25$ ,  $p<.05$ ), but did not predict any other aspects of well-being.

Group external control overall did not predict well-being, but aspects of group external control also significantly predicted well-being. Similar to Hypothesis 1, the group external control subscales (Outsiders, Luck, and Creator) were simultaneously regressed on each of the six well-being measures. Perceived Creator control significantly predicted positive self-esteem ( $R^2=.07$ ,  $\beta=.26$ ,  $p<.05$ ) and general happiness ( $R^2=.09$ ,  $\beta=.30$ ,  $p<.05$ ), and perceived luck control marginally predicted increased negative self-esteem ( $R^2=.06$ ,  $\beta=.25$ ,  $p<.06$ ).

**Table 2. Study 1 Multiple Regression Analyses of Group Control and Well-Being**

		<i>Self-Esteem</i>		<i>PANAS</i>		<i>Generally</i>	<i>Substance</i>
		<i>Positive</i>	<i>Negative</i>	<i>Positive</i>	<i>Negative</i>	<i>Happy</i>	<i>Use</i>
Internal	$\beta$	.26*	-.12	.23 <sup>a</sup>	-.12	.11	.15
	B	.40	-.19	.30	-.18	.19	.44
	SE	(.17)	(.19)	(.16)	(.19)	(.20)	(.33)
External	$\beta$	.19	.15	.14	-.03	.15	-.19
	B	.29	.25	.19	-.04	.26	-.54
	SE	(.17)	(.19)	(.16)	(.20)	(.20)	(.34)

*Note.*  $\beta$  = standardized beta coefficients. B = unstandardized coefficients. SE = standard errors.  
<sup>a</sup> $p < .06$ . \* $p < .05$ .

These results support the hypothesis that greater perceived group internal control is associated with greater psychological well-being (i.e., positive self-esteem and positive affect). The measure of collective efficacy also demonstrated an association with greater positive self-esteem. Furthermore, the results suggested that one aspect of perceived group external control, luck control, was associated with decreased psychological well-being (i.e., increased negative self-esteem). However, contrary to expectations, the results additionally indicated that greater perceived Creator control was associated with greater psychological well-being (increased positive self-esteem and general happiness).

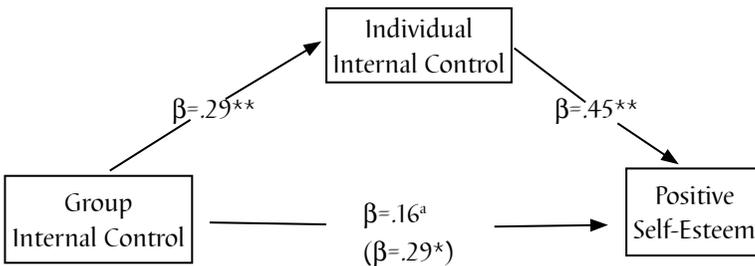
In summary, the overall pattern of these results suggests for the first time a pivotal role of greater perceived group internal control and collective efficacy in well-being, as well as a potential role for control perceived through the Creator. However, perceiving control through luck, or randomness, does not appear to be supportive of well-being.

*Hypothesis 3: The effect of group internal control on well-being will be mediated by individual control. That is, group control is hypothesized to exert an effect on well-being through individual control.*

To test this mediation hypothesis, the procedures outlined by Baron and Kenny (1986) were followed. A series of regression equations were constructed to determine if perceptions of individual control mediated the relationship between perceptions of group control and well-being. In terms of internal control, each of the conditions required for the predicted relationship to hold was met, supporting the hypothesis that perceived individual internal control mediates the relationship between perceived group internal control and well-being, measured as positive self-esteem. First, as indicated in Figure 1, perceived group internal control predicted well-being. Second, perceived group control predicted perceived individual internal control. Finally, when perceived individual internal control was inserted into the first equation, perceived group internal control was no longer a significant predictor of well-being. The reverse relationship was also tested — i.e., group control mediating individual control — but did not better account for the findings. Thus, as hypothesized, these results support the full mediation of the relationship between perceived group internal control and well-being by perceived individual internal control. (The regressions of self-esteem, individual external control, and group external control and collective efficacy did not meet the conditions necessary to test mediation and are not reported.)

In summary, these findings support the hypothesis that the effect of perceived group internal control on well-being occurs through the influence

**Figure 1. Study 1 Mediation of Relationship between Group Internal Control and Positive Self-Esteem by Individual Internal Control.**



a. Sobel test is significant at .05.

β indicates the standardized beta coefficient. The parenthetical value indicates beta before including individual control.

\*p < .05. \*\*p < .01

of individual internal control. Consequently, while these results do not support a direct effect of perceived group control on well-being, the fact that group control perceptions can have an indirect effect on well-being through individual control perceptions underlines the importance of considering both individual and group control.

An additional regression analysis was performed to investigate whether the effect of group internal control is moderated by strength of Native identity (i.e., whether group control matters more to those youth who strongly identify with being Native). Native identity and group internal control were regressed on positive self-esteem. Following the procedure outlined by Aiken and West (1991), both variables were centred before the regression analysis was conducted. Group internal control significantly predicted self-esteem ( $R^2 = .10$ ,  $\beta = .31$ ,  $p < .05$ ), but there was no effect of Native identity nor was there an interaction between control and identity. Consequently, these results do not support the hypothesis that the effect of group community control on well-being is moderated by strength of Native identity. Group community control instead appears to influence well-being regardless of level of identification with being Native.

### STUDY 1—SUMMARY

Consistent with existing research, the present findings support the hypothesis that greater perceived individual internal control is associated with greater psychological well-being. Extending the individual literature, and investigating for the first time perceived group control and Aboriginal youth well-being, support was found for the hypothesis that greater perceived group internal (“Native people/own group”) control is associated with greater well-being. In line with this prediction, a relationship was found between greater perceived individual and group external (“Luck”) control and decreased well-being. However, the results also indicated that greater perceived individual and group external (“Others” and “Creator”) control were associated with aspects of greater well-being. The effect of group internal control on well-being was mediated by (that is, acting through) the effect of individual internal control, but not moderated (that is, influenced) by strength of Native identity. These results provide key preliminary support for a greater consideration of group factors in well-being, while at the same time highlighting the unique situation of Aboriginal youth.

A few key limitations on these findings are important to note. First, the scales developed to measure individual and group control demonstrated

internal consistency levels (i.e., how well the items are associated with each other) much below commonly accepted levels. Low internal consistency suggests the scale may not reliably measure a well-defined construct such as control in this population. These scales were adapted from Mirowsky, Ross, and Van Willigen's (1996) "instrumentalism" scales, which they argue have lower than normal internal consistency because of a more balanced and bias-free design (Mirowsky and Ross, 1991). However, the lower end of reliability values for the present scales was well below that reported by Mirowsky and colleagues (1996). Several factors may be responsible for the low reliability of the control scales in the present study. For example, the items included very general statements regarding perceived control, which may have been too abstract a concept for the youth to comprehend fully. More broadly, conceptualizing the scales in terms of internal and external locus of control may not capture all of the meaning for the participants. For example, attributions of causality to the Creator may reflect a sense of coherence or spirituality rather than a locus of control per se. Consequently, future research should include more specific control belief items, including examples more directly relevant to young people's lives. Furthermore, a greater number of items could also increase the specificity, reliability, and usefulness of the perceived control scales.

Second, an important factor in interpreting the results for group control relates to how the youth may have interpreted the term "Native people." The group control scale used the term "Native people" to capture the concept of the collective/group. While "Native people" certainly constitutes a group that is identifiable and relevant to the youth who participated in the study, the meaning of the term may have differed from person to person. For example, individuals could interpret "Native people" as referring to: (a) only the people they know in their community; (b) all the people in the community; (c) all Cree people; (d) all Native people (First Nations only) across Canada; (e) all Aboriginal people (First Nations, Inuit, and Métis) across Canada; or (f) all Native (indigenous) people around the world. While the use of a broad term such as "Native people" emphasizes the similarities across Native groups, it is important to remember that there are just as many differences across groups. Consequently, a better defined concept of the "group" could be useful in further research.

Finally, with regard to the relationship found between individual external control and decreased frequency of substance use, analysis of participants' responses to the substance use scale, as well as feedback from the

youth themselves, suggest that these findings may not be completely accurate or valid. During community feedback discussions, various community members, including both adults and youth, suggested that the substance use rates indicated in the survey likely underrepresented the actual rates of use. This could carry over into misleading correlations with external control. Hypotheses for the potential underreporting of substance use include young people's fears that their responses may be shared with school personnel or other adults, as well as the format of the questions themselves. While confidentiality and anonymity of students' responses was emphasized during the survey administration, the researcher was effectively a stranger to all of the youth, and they may have had less confidence in the research procedures. Future research could likely be improved by revising the format of substance use items, as well as by emphasizing the confidentiality of survey responses.

The findings of Study 1 provided a valuable first step in assessing the role of group control in Aboriginal youth well-being. Study 2 was designed to replicate and build on these findings, while addressing the limitations of Study 1, particularly by employing revised measures to assess group control and substance use.

## STUDY 2

### METHOD

#### *Participants*

A total of 84 youth from two First Nations communities in northern Manitoba (the same communities as in Study 1) participated in Study 2; 55 youth from community A, and 29 from community B. The youth ranged in age from 12–21 years ( $M=14$ ,  $SD=1.7$ ); 50 were female and 34 were male. All of the youth were attending school at the time of the survey, spanning grades 7–12 ( $M$ =grade 8). While there was some overlap (about 30%) in participants from Study 1 to Study 2, this was not formally tracked or recorded, in keeping with the confidentiality and anonymity measures. Thus the participants in Study 2 were considered as a separate cross-sectional sample, and their survey responses were analyzed that way.

#### *Procedure*

Following community feedback, Study 2 was developed to further investigate the significant findings of Study 1. Again, the survey instrument was

approved by community representatives, school administration, and the McGill University Human Subjects Ethics Board. Participation was voluntary, and it was emphasized to youth that their survey responses would be kept confidential and anonymous. Parents were given the opportunity to refuse their child's participation in the study (none of the parents requested that their child not participate). However, parental approval to participate in the study was not required, and as in Study 1, each young person was permitted to make her or his own decision regarding participation.

Youth completed the Study 2 survey in May 2005. Administration was again in the group classroom setting, and youth were either led through the survey by the researcher or completed it on their own. To control for order effects, items were arranged randomly within the group and individual control scales. Additionally, within the survey the group and individual control scales were presented in alternating order; approximately half of the youth completed the individual scales first, and the other half completed the group scales first. Survey 2 also took about 30 minutes to complete. Upon finishing, participants were given a small snack as a thank you, as well as contact information for the researcher and helping resources in the community.

### *Measures*

As in Study 1, additional survey items not noted here include general demographic information as well as other scales unrelated to the present analyses. Unless otherwise noted, rating scales followed the same response format as in Study 1.

### *Well-Being (in addition to those measures previously noted in Study 1)*

*Collective Esteem* — In Study 2 an additional measure of group esteem was included, based on the notion that group control may be better related to collective, versus self, esteem. The group esteem measure comprised 5 items taken from Luhtanen and Crocker's (1992) Collective Self-Esteem Scale, changing, where necessary, the term "social group" to "Native group." The Collective Esteem Scale items included: (8) *It is important to me to be part of a Native group.* (10) *In general, Native people are respected by others.*

*Substance Use* — Based on suspected underreporting of substance use in Study 1, a revised measure was employed for Study 2, adapted from the Addictions Severity Index (McLellan et al., 1980). Designed to be used in an interview format, the Addictions Severity Index is frequently used in addic-

tions research and treatment. Recent research also supports the use of the items in a self-report format (Brodey et al., 2004). Given the substantial length of the full measure, only items relevant to the present substance use assessment were employed. These items covered the use of cigarettes, alcohol, drugs, and solvents, and inquired as to the percentage of one's friends who use the substance, whether participants had ever used it themselves, and if so, how old they were at first use, and how often they had used in the past two weeks. Whether or not participants had ever used the substances, and their age at first use, were the key variables of interest in the present research. Each of these was averaged across the three substances of cigarettes, alcohol, and drugs (solvents not included, being a low baseline again), yielding an index of lifetime substance use and age at first use. A younger age of first use was taken to indicate lower well-being (Hawkins et al., 1997).

To further enhance the possibility of collecting accurate substance use information, a brief paragraph preceded the substance use items in Survey 2. This paragraph included a statement referring to the normalcy of experimenting with substances during adolescence, as well as a reminder of the confidentiality and anonymity of participants' responses.

### *Perceived Control*

*Group and Individual Control* — In order to expand the assessment of perceived control for Study 2 as compared to Study 1, the Group and Individual Control Scales were further developed using the framework of Connell's (1985) Multidimensional Measure of Children's Perceptions of Control (MMCPC). Again, modifications were necessary to make the MMCPC items relevant to the present sample. First, with regard to the Group Control Scale, all personal references were changed to reflect the group. An important change in the present study was the use of the more specific reference group term "community," as opposed to the potentially ambiguous term "Native people" used in Study 1. Additionally, the multiple domains assessed were made relevant to life in the participating communities. In total, five different domains were assessed (quality of education, access to jobs, things that happen in the community, speaking Cree, and problems with alcohol) across the four sources of control (similar to Study 1—Community, Outsiders, Luck, and Creator/God). As a result, the Group Control Scale comprised 20 items, reflecting four sources of control by five domains. The original MMCPC scale (Connell, 1985) and the present adapted scale demonstrated similar reliability ranges (original scale, subscales alpha range=.39-.70;

present Group Control Scale, five items per subscale: Community alpha=.48, Outsiders alpha=.41, Luck alpha=.65, Creator alpha=.80).

Examples of the Group Control Scale items include: (3) *How much control do people in this community have over the quality of education here?* (13) *How much control do outsiders, like the Manitoba government, have over access to jobs in this community?*

Following the development of the Group Control Scale, the Individual Control Scale items were made parallel in construction. The key difference was in the five domains assessed (grades in school, relationships with friends, relationships with parents, speaking Cree, and drinking), this time made relevant to individual young people's lives, versus the community in general. The Individual Control Scale also comprised 20 items, covering four sources of control (Self, Others, Luck, and Creator/God) by five domains. The Individual Control Scale demonstrated similar reliability ranges to the original and Group Control Scales (present Individual Control Scale, five items per subscale: Self, alpha=.38; Others, alpha=.51; Luck, alpha=.63; Creator, alpha=.53).

Examples of the Individual Control Scale items include: (4) *How much is your ability to speak Cree due to luck?* (5) *How much is whether or not you drink due to the plans of the Creator/God?*

## RESULTS

One of the key additions to the present study was the development of more comprehensive control measures, as compared to Study 1, reflected in items assessing various domains of control for groups and individuals. Part of the rationale for assessing multiple domains of control was a belief that perceived control ratings would differ depending on the domain of interest. Indeed, there were clear differences in the mean perceived control ratings across each source and domain of control, for both the group and individuals. Separate 2-way repeated measures analyses of variance (ANOVA's) confirmed that there were main effects of source of control (individual control ratings:  $F(3, 204)=5.83, p<.01$ ; group control ratings:  $F(3, 195)=18.93, p<.001$ ) and domain of interest (individual:  $F(4, 272)=48.93, p<.001$ ; group:  $F(4, 260)=16.00, p<.001$ ), as well as a source by domain interaction (individual:  $F(12, 816)=5.26, p<.001$ ; group:  $F(12, 780)=6.18, p<.001$ ). Thus, ratings of perceived control differed based on the source of control as well as the domain of interest (in line with the rationale for multidimensional control measures).

In examining the range of control ratings, it is interesting to note that on the individual level, the highest internal control ratings were given for grades in school, and on the group level, the highest internal control ratings were given for speaking Cree. Of even greater note, however, is that across all the domains and sources, the lowest control ratings were given for control over drinking. It appears that perceived control over drinking may not operate in the same manner as perceived control in other life domains. This unique pattern of responses in terms of drinking reappeared in conducting the regression analyses, and consequently is further explored there.

## REGRESSION ANALYSES

*Hypothesis 1: Greater perceived individual internal control will be associated with greater psychological well-being.*

Perceived individual internal (Self) control and external (Others, Luck, and Creator) control were simultaneously regressed on well-being. Seven separate regressions were conducted, one for each dependent variable measuring well-being (1-Positive Self-Esteem, 2-Negative Self-Esteem, 3-Collective Esteem, 4-Positive Affect, 5-Negative Affect, 6-General Happiness, and 7-Age of First Substance Use, including cigarettes, alcohol, and drugs). Interestingly, for self-control in particular, the relationships between perceived control and well-being increased after removal of the drinking control items. Thus, in the present analyses the individual control findings are presented after the removal of the drinking items.

As Table 3 indicates, perceived individual internal control significantly predicted positive self-esteem and collective esteem, accounting for 16% and 17% of the variance in each, respectively. However, the findings additionally indicated a significant association between perceived others control and positive affect, accounting for 11% of the variance.

The finding that the relationship between perceived control and well-being increased after removal of the drinking control items suggests an unexpected relationship in the present sample between perceived control over drinking and well-being. An examination of the relationships between the individual drinking control items and well-being measures confirmed a very different pattern of results from the rest of the individual control items. As Table 4 indicates, increased individual perceived control over drinking, regardless of the source, was associated with increased negative self-esteem ( $R^2=.11$ ) and negative affect ( $R^2=.08$ ), as well as a trend for a younger age of initial substance use ( $R^2=.09$ ).

**Table 3. Study 2 Multiple Regression Analyses of Individual Control and Well-Being**

		Self-Esteem		Collective Esteem	PANAS		Generally Happy	Age 1 <sup>st</sup> Substance Use
		Positive	Negative		Positive	Negative		
Internal Self	$\beta$	.40**	-.17	.41**	.16	-.04	.17	.42
	B	.41	-.20	.41	.18	-.06	.23	1.03
	SE	(.14)	(.17)	(.13)	(.15)	(.20)	(.19)	(.51)
External Others	$\beta$	.15	-.16	.08	.33*	-.21	.23	.09
	B	.13	-.15	.07	.29	-.23	.26	.17
	SE	(.12)	(.14)	(.11)	(.13)	(.17)	(.16)	(.43)
Luck	$\beta$	.06	.11	.12	-.10	.11	.15	-.16
	B	.05	.10	.09	-.08	.12	.16	-.30
	SE	(.13)	(.16)	(.13)	(.15)	(.20)	(.19)	(.52)
Creator	$\beta$	.01	.09	.01	.13	-.01	-.13	-.08
	B	.01	.09	.01	.12	-.01	-.14	-.16
	SE	(.14)	(.17)	(.14)	(.15)	(.21)	(.19)	(.55)

Note.  $\beta$  = standardized beta coefficients. B = unstandardized coefficients. SE = standard errors. All "control over drinking" items have been removed. \* $p < .05$ . \*\* $p < .01$

**Table 4. Study 2 Multiple Regression Analyses of Overall Individual Drinking Control and Well-Being**

		Self-Esteem		Collective Esteem	PANAS		Generally Happy	Age 1 <sup>st</sup> Substance Use
		Positive	Negative		Positive	Negative		
Drinking Control	$\beta$	-.05	.33**	.11	-.06	.29*	-.04	-.30 <sup>a</sup>
	B	-.04	.32	.09	-.06	.33	-.05	-.70
	SE	(.11)	(.11)	(.10)	(.11)	(.13)	(.13)	(.41)

Note.  $\beta$  = standardized beta coefficients. B = unstandardized coefficients. SE = standard errors.  
 a. N = 31,  $p < .10$ .  
 \* $p < .05$ . \*\* $p < .01$ .

*Hypothesis 2: Greater perceived group internal control will be associated with greater psychological well-being.*

Table 5 presents the findings for internal (Community) and external (Outsiders, Luck, Creator) group control simultaneously regressed on the seven measures of well-being (as in Table 3). Again, some of the relationships between group control and well-being increased after removal of the alcohol control items. To further examine the relationships between the in-

**Table 5. Study 2 Multiple Regression Analyses of Group Control and Well-Being**

		Self-Esteem		Collective	PANAS		Generally	Age <sup>1st</sup>
		Positive	Negative	Esteem	Positive	Negative	Happy	Substance Use
<b>Internal</b>								
Community	$\beta$	.31*	-.07	.20	.24	-.04	.18	.39
	B	.40	-.10	.26	.34	-.07	.33	1.29
	SE	(.19)	(.22)	(.20)	(.21)	(.26)	(.28)	(.73)
<b>External</b>								
Outsiders	$\beta$	-.03	.02	.01	.09	-.28	.22	-.37
	B	-.04	.02	.01	.10	-.38	.31	-.97
	SE	(.17)	(.19)	(.17)	(.18)	(.23)	(.24)	(.67)
Luck	$\beta$	-.13	-.08	.19	-.25	.05	-.02	-.25
	B	-.13	-.08	.18	-.26	.07	-.03	-.51
	SE	(.15)	(.17)	(.15)	(.17)	(.23)	(.23)	(.44)
Creator	$\beta$	.20	.22	.08	.19	.23	-.14	.16
	B	.17	.19	.06	.17	.25	-.15	-.34
	SE	(.14)	(.16)	(.14)	(.16)	(.20)	(.20)	(.56)

Note.  $\beta$  = standardized beta coefficients. B = unstandardized coefficients. SE = standard errors. No items have been removed.

\* $p < .05$ .

dividual alcohol control items and well-being measures, the respective regressions were conducted. However, no significant relationships were found between group alcohol control and well-being, and consequently, none of the alcohol control items were removed from the group control subscales.

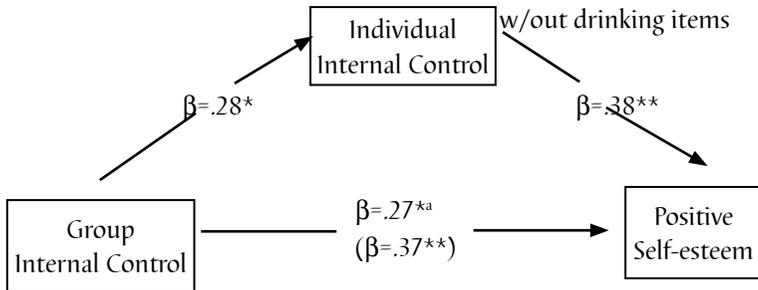
Consistent with predictions for individual control, perceived group community (internal) control significantly predicted positive self-esteem, accounting for 10% of the variance. None of the external control subscales predicted any of the well-being measures. Consequently, group internal control again appears to play a significant role in well-being.

*Hypothesis 3: The effect of group internal control on well-being will be mediated by individual control. That is, group control is hypothesized to exert an effect on well-being through individual control.*

This mediation analysis was conducted, as in Study 1, following the procedures outlined by Baron and Kenny (1986). In terms of internal control, each of the conditions was met to test the hypothesis that perceived individual internal control mediates the relationship between perceived group internal

control and well-being, measured as positive self-esteem. First, as indicated in Figure 2, perceived group internal control predicted well-being. Second, perceived group control predicted perceived individual internal control. Finally, when perceived individual internal control was inserted into the first equation, perceived group internal control remained a significant predictor of well-being, but with a significant decrease in the strength of the relationship. Reinforcing these results, the reverse relationship was also tested — i.e., group control mediating individual control — but did not better account for the findings. (The regressions of self-esteem, individual external control, and group external control did not meet the conditions necessary to test mediation, and consequently are not reported.)

**Figure 2. Study 2 Mediation of Relationship between Group Internal Control and Positive Self-Esteem by Individual Internal Control.**



a Sobel test is significant at .05.

β indicates the standardized beta weight associated with the effect. The parenthetical value indicates beta before including individual control.

\*p < .05. \*\*p < .01

These results support the partial mediation of the relationship between perceived group internal control and well-being by perceived individual internal control, but also support an independent contribution of group internal control. Consequently, the effect of perceived group internal control on well-being may occur both indirectly through the influence of individual internal control, as well as through a direct impact on well-being.

**STUDY 2—SUMMARY**

The present study expanded upon the findings from Study 1 regarding group control. New, multidimensional measures of group and individual control provided a more comprehensive assessment of the role of perceived control in Aboriginal youth well-being. The present findings indicated an

association between greater perceived individual internal (“Self”) control and greater psychological well-being, as well as between individual “Others” control and well-being. While the finding regarding “Others” control is opposite to the original research hypotheses, it can be viewed in light of group considerations, and the important role played by others — i.e., peers and parents — in young people’s lives. Moreover, a role for both internal and external control in Aboriginal youth well-being may reflect a joint influence of heritage cultural values and majority society in the development of these youths’ control beliefs.

The use of questions to assess multiple dimensions of control indicated that there may be different associations between the nature of the relationship between perceived control and well-being, depending on the issue of interest. In particular, for this sample of young people, greater perceived individual control over drinking was in fact associated with decreased well-being. This finding is also opposite to the role of perceived control documented in the literature. However, it has important implications for Aboriginal groups, given the high rates of substance use in many Aboriginal communities.

One potential explanation for this finding comes from Cooper’s (1994) model of drinking motives, in that the relationship between perceived control and well-being, particularly in the case of alcohol use, may be dependant on an individual’s motivation to drink; that is, whether individuals drink to cope with negative emotions (“coping”), to fit in with others (“conformity”), to increase positive emotions (“enhancement”), or to have fun socially (“social”). Cooper (1994) has reported that coping, conformity, and enhancement motives for drinking are associated with more harmful drinking styles. Comeau and colleagues (2005) recently applied Cooper’s (1994) model with a sample of Mi’kmaq youth in Nova Scotia. They found that hopelessness was associated with coping motivations for drinking, and this often came paired with a sense of powerlessness. In the present findings, it is possible that youth who drink as a way of coping with negative emotions, perceive control over their drinking as an attempt to minimize the otherwise overwhelming sense of powerlessness in their lives. An ongoing integration of the control and substance use literature could have valuable implications for Aboriginal youth well-being.

Finally, in an extension of the individual findings, the present study also demonstrated an association between group factors and psychological well-being. In line with predictions, the survey results indicated an associa-

tion between greater psychological well-being and greater perceived group community control. The relationship of group community control and well-being was found to be partially mediated/influenced by individual self control. At the same time, however, group community control also made a significant contribution to well-being, over and above the contribution of individual self control.

In summary, the findings of Study 2 complement those of Study 1 and further emphasize the important role of group factors in Aboriginal youth well-being.

## GENERAL DISCUSSION

The present research investigated how group factors, in particular perceived group control, affect the psychological well-being of Aboriginal youth. Consistent with previous research, the results suggest an association between greater perceived individual internal ("Self") control and greater psychological well-being. Importantly, the present research also establishes a relationship between greater perceived group internal ("Own group") control and greater psychological well-being. This relationship appears to be mediated/influenced, at least partially, by perceived individual control. Taken together, these results point to the important role of group factors, i.e., group control, in well-being.

One general limitation to the present research warrants discussion. In both studies the participants were only those students still attending school at the end of each school year. Given the high rates of school drop outs, and irregular school attendance in many Aboriginal communities, it may be that the youth who participated in these surveys differed in a number of ways from youth not in school, or even from the population of students at the beginning of the school year. Unfortunately, scheduling issues constrained the options for data collection time periods, and both surveys were conducted at the end of the school year. On the positive side, this led to consistency in the two samples. A sample of youth still attending school presumably represents those young people who are most successful in the community, which is in keeping with the strengths orientation of the research. While understanding the relationships among group control, identity, and well-being for the youth *not* in school is equally important, and a key focus for future research, the present study sample can provide a positive starting point.

Particularly interesting implications are suggested by the finding that the relationship between perceived group control and well-being appears

only partially mediated by (that is, acts through its effect on) perceived individual control. This suggests that *both* individual and group control can be targets of interventions aimed at enhancing individual well-being. This is useful information that may contribute to practical efforts, given the pressing need to address the historical position of decreased power and control held by many Aboriginal groups.

The findings also suggest that group control may increase individual well-being by increasing one's sense of individual control. One potential explanation for this effect is suggested by the theory of collective identity (Taylor, 2002), which argues that collective identity provides a template for building a strong sense of individual identity. Similarly, a sense of group control may provide a template for individual control. Thus, the positive effects of group control may occur through youth seeing that their community is not completely dependent on others and can become self-sufficient. This background of perceived collective control may then lead youth to feel an increased sense of personal control. Consequently, they will have the opportunity to develop an increased sense of self (and collective) esteem, as they can see themselves as part of an effective, valued group, instead of a powerless, dependent group that is marginalized, ignored, exploited, or otherwise devalued.

The results of the present studies can also help to explain the findings of Chandler and Lalonde (1998), who conducted the only other study to date related to group control and well-being. Increased collective control, if perceived and experienced by youth, may enhance their feelings of individual control and through that, increase their sense of well-being. The present findings therefore support attempts to reinforce collective identity and sense of control as ways of reinforcing individual and community-wide perceptions of well-being and self-efficacy. Longitudinal studies are needed to establish the direction of causation and processes that underlie the positive effects of perceived group control. Future research can also examine other specific domains of control, as well as investigate the relative contribution of alternative constructs such as sense of coherence, spirituality, and social capital. Exploring the communal, personal, and psychological impact of principles of OCAP and other expressions of indigenous peoples' autonomy and independence are important additions to political efforts to achieve greater self-determination.

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