'GirlPower,' a participatory action research project, explored how participation in recreation might contribute to the achievement of BC's Health Goals and nurture social capital. After identifying their health issues, up to 43 young women participated in recreational activities for 10 months, gradually taking responsibility for the planning of the weekly sessions. Data collection methods included weekly participation rates, two surveys to measure self-perceptions and health habits, focus groups with participants to assess needs and as a process evaluation tool, a qualitative summative evaluation with participants, key informant interviews with staff, a journal kept by the project leader and fieldnotes of researchers' observations. Quantitative findings did not support the propositions that the project contributed to the health of participants. However, analysis of the qualitative data suggests that GirlPower participants emerged from the project with a better sense of control over their lives and feeling more connected to their community.

A B R É G É

« GirlPower », un projet de recherche-action participatif, visait à déterminer si la participation aux loisirs contribue à l'atteinte des objectifs de santé de la Colombie-Britannique et si elle favorise le capital social. Après avoir indiqué leurs problèmes de santé, jusqu'à 43 jeunes femmes ont participé à des activités de loisirs pendant 10 mois en assumant graduellement la responsabilité de la planification des séances hebdomadaires. Nous avons recueilli des données à partir des taux de participation hebdomadaires, de deux sondages (mesurant la perception de soi et les habitudes de santé), de groupes de concertation avec les participantes pour évaluer leurs besoins et l'ensemble du processus, d'un bilan qualitatif avec les participantes, d'entrevues du personnel avec des informatrices clés, du journal du chef de projet et des notes de campagne des chercheurs. Nos constatations quantitatives n'ont pas permis de confirmer que le projet a renforcé la santé des participantes, mais l'analyse des données qualitatives suggère qu'elles ont retiré du projet un meilleur sentiment de contrôle de leur vie et d'insertion dans la collectivité.

The GirlPower Project – Recreation, BC Health Goals and Social Capital

Joan Wharf Higgins, PhD, Nancy Reed, MEd

'GirlPower,' a participatory action research project involving adolescent females, explored how participation in recreation might relate to (i) achieving selected BC Health Goals and (ii) the concept of social capital. In its statement of goals, the Ministry of Health encourages various "sectors to link their investments to health outcomes...integrate them into your . . . program planning, resource allocation and monitoring systems,"¹ encouraging collaborative action of health-related sectors and public participation in such a process. From the outset, GirlPower used the Health Goals as a framework for its implementation and evaluation. GirlPower spanned the 1998/99 school year, totaling 10 months in length and 80 contact hours in duration. The project team included 2 university researchers, 2 recreation practitioners and up to 43 young women (aged 10 to 15 years) in a low-income, inner-city area of Victoria. The purposes of this article are to: describe the project as a case study, its program evaluation processes and summarize the results; identify its contribution to BC's Health Goals; and, relate the project to the concept of social capital.

Our research propositions stated that:

- 1) A weekly recreation program for adolescent girls would contribute to their physical, social and emotional health;
- 2) Beyond the immediate benefits to participants, a recreation program would foster the involvement of adolescent girls in the life of their community; and,
- 3) A recreation program would serve as a vehicle for strengthening social networks and trust.

Social capital is a relatively new concept that represents the breadth and depth of citizen (formal/informal) involvement in the community and the mutual level of trust among community members.² Social capital has been linked to health, as a mediating variable between income inequality and mortality.²⁻⁴ Putnam⁵ has argued that the greater the investment in social capital, the greater the health of citizens and the community. Most relevant to the GirlPower project, "social capital keeps bad things from happening to good kids,"⁵ and is second only to poverty in its effects on the lives of children and youth.

Over the past several years, researchers in the recreation field have inquired into the individual and community benefits of recreation, resulting in a 'benefits catalogue.'^{6,7} Although this catalogue identified the potential of achieving benefits from recreation, academics^{8,9} urged leisure researchers to consider how "our research [is] making the world a better place to live" so the field could better position itself as a health-promoting public service. Beginning with the premise that recreation delivers more than immediate program benefits to participants, the GirlPower project assumed that public recreation is as crucial as public health to the health of citizens and their communities.

From the beginning of the last century, leisure experiences were viewed as having social value. They were a medium for addressing social problems and a means of assimilating individuals into the new industrial society. Recreation services continue to be organized to achieve social ends – decreasing crime, encouraging healthy living, developing leadership skills.¹⁰ Public recreation has largely been built on the premise that it strives to improve community life.¹¹ Indeed, one of the purposes of recreation is to enhance social functioning¹² – a key component of social capital.

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TABLE I
Data Collection Methods

Measurement	Tool	Gathered	Management and Analysis
Participation Rates	Attendance Sheets	Weekly	Minimum, maximum and average attendance rates calculated.
Psycho-social Constructs N=33	"What am I like" questionnaire: a 35-question instrument designed to capture participants' levels of self-esteem, body image, friendship, athletic competence, social acceptance, global self-worth and behavioural conduct.	Pre and Post	For the two survey tools, responses were recorded, coded and grouped on spreadsheets. Due to the small number of participants in the project, only percentages and means were calculated.
Health Knowledge and Behaviours N=39	Health Habits Survey: 20-point likert scale and open-ended questions designed to assess participants' perceptions of physical and psycho-social health and the supports in their community that are helpful or harmful to health; and, knowledge level of and behaviours in smoking, healthy eating and physical activity.	Pre and Post	
Project Leader's Perceptions of the Project and Its Impact on Participants	Written Journal detailing weekly activities, successes, challenges, participants' comments.	Weekly	The journal was reviewed with the leader during the mid- and post-project interviews, as well as independently by the researchers at the completion of the project.
Researchers' Perceptions of the Project and Its Impact on Participants	Overt, non-participant observations. Fieldnotes documented participants' eating and exercise behaviours, social interaction, leadership and decision-making/problem-solving skills.	Monthly	Researchers debriefed following the collection of observations and documented their discussion as fieldnotes.
Needs Assessment of Issues and Process Evaluation of Project N=41	Semi-structured Focus Groups with participants. Questions asked included: What does it mean to you to be healthy? What things in your life and your community help or don't help to keep you healthy? What things can we do in GirlPower to help keep you healthy and make you healthier?	Pre and mid-way through project	Focus group and interviews were audiotaped, transcribed, summarized and reviewed with participants to assure accuracy.
Recreation Staff Perceptions of the Project and Its Impact on Participants N=2	Semi-structured, key informant interviews with Project Leader and Coordinator. Questions asked staff to consider the breadth and depth of participation, differences (if any) in participants' behaviours and attitudes, and what aspects of the project were successful and challenging.	Mid-way & post	
Summative Evaluation N=32	Participants were asked to express their feelings through drawing, writing and using pictures/images from magazines on construction paper. Questions included: Tell us about the time you spent in GirlPower – what was it like? Think back to September and what your life was like then. How would you have described yourself? What about now? If you were in charge for making sure you and your friends were healthy, what would you do?	Post	Cardboard collages were examined for their images, words and feelings expressed. Researchers talked with participants as they completed the collages and these were audiotaped, later transcribed and compared to the content of the collages. Each qualitative data source was reviewed independently and analyzed for content and theme. As patterns and themes began to emerge across these data sources, each one was revisited to link connections between them. Finally, in order to make sense of the patterns and themes, they were linked to existing concepts and research in the population health literature.

METHODS

Youth were recruited by recreation staff through personal invitations and the fall activity brochure, volunteering to be part of the research study in addition to partici-

pating in the recreational activities. Abiding by the protocol approved by a Human Ethics body for this project, consent to participate in the research aspect was obtained from both the youth and their guardians. From the outset, youth

took an active role in shaping the project: identifying salient health issues and planning activities that demanded consideration of budget, transportation, equipment/supplies and other logistics. Weekly gatherings dealt with aspects of physical,

TABLE II
BC Health Goals, GirlPower Objectives, Activities and Results

BC Health Goal	GirlPower Objectives	Example GirlPower Program Activities	Results at Program's Completion
Goal #1: Positive and supportive living and working conditions in all our communities.	a) Upon completion of the program, community participation, social networks and interpersonal relationships will be enhanced by participation in GirlPower.	Participants choose to engage in "Bigger or Better" activity. Result: donation of a micro-wave oven and clothing to local Salvation Army.	"I have new friends." "I have met new friends and did different things." "The people [at Girlpower] rock." "It was really fun for me to go to GirlPower from the first day to the last day. The people and the things we did made it fun – talking together, socializing, playing games, watching movies and going for dinner together."
Goal #2: Opportunities for all individuals to develop and maintain the capacities and skills needed to thrive and meet life's challenges and to make choices that enhance health.	a) By program's completion, the participants will report enhanced health and well-being, increased sense of equality/equity, and feeling more in control of their lives than before the program's inception.	Participants decide for themselves, in consultation with the program leader, the weekly activities to pursue and the budget implications.	"I feel more confident and better about myself." "We can voice our opinion around boys now because [what they think] doesn't matter now." "GirlPower was fun - we felt like we were in control."
	b) By program's completion, participants' health habits will increase by a mean score of 0.3.	Participants plan for and prepare healthy and enjoyable snacks: pita pizza, veggies and dip, etc. Also, participants engage in co-operative games that promote physical activity and cooperation.	"I think GirlPower has helped me because we eat healthy food and do active things." No increase in mean scores of health habits. During summative evaluation, participants reported that "I learned a lot – how to stay healthy." "We are better at choosing snacks – we don't always have junk food now." "We exercise more now."
	By program's completion, participants will have developed planning skills as evidenced by planning the final GirlPower session with minimal assistance from the program leader.	Planning skills are integrated into each session, including issues of time, money and safety.	Participants plan their final sessions with safe, fun and healthy activities. Budgetary constraints are overcome by participants raising funds through a bake sale.

TABLE III
Pre- and Post-program Scores from the 'What am I Like?' Survey

	Athletic Competence Subscale	Social Acceptance Subscale	Physical Appearance Subscale	Decision-making Subscale	Behavioural Conduct Subscale	Close Friendship Subscale	Global Self-worth Subscale
Pre-program Score	3.10	3.30	3.06	3.16	2.89	3.10	3.35
Post-program Score	3.05	3.24	3.13	3.05	3.01	3.08	3.29
Overall Change	-0.05	-0.06	+0.07	-0.11	+0.12	+0.02	+0.06

According to Harter,⁵⁰ changes in scores are considered significant if greater than or equal to +/- 1.0

social and developmental recreation including group discussions, laser tag, initiative/cooperative games, producing 'rock' videos and bake sales. Table I summarizes the quantitative and qualitative data collection and analysis methods used throughout the project.

RESULTS

Health

The initial needs assessment found that the health issues paramount to the participants were: a lack of control over their

lives, a sense of independence, personal empowerment and participation in 'girls only' activities. These issues are common to many young women^{13,14} and are extensively reflected in the health literature as integral to the health of individuals.¹⁵

Table II summarizes project findings juxtaposed with two of BC's Health Goals, describing how GirlPower's objectives and activities were integrated into the planning and monitoring, and how the results contributed towards achieving these health goals. The "What I am Like" instrument (Table III) found minimal increases in five

of the subscales. Decision-making and social acceptance subscales, however, indicated an overall minimal decrease. This finding did not support the qualitative data that reflected enhanced feelings of belonging and decision-making skills as a result of the GirlPower experience (Table II, Health Goal 1a & 2b).

According to the health habits survey, health behaviours remained stable over the duration of the project, with no changes in mean scores for healthy eating, physical activity or smoking. However, 91% of participants indicated during the summative

qualitative evaluation that GirlPower helped them to eat well and be physically active (Table II, Health Goal 2b). In addition, recreation staff noted in the exit interview that “[participants] *learned a lot about health. Comments about the food in the vending machine [being unhealthy], a preference for carrots rather than chips after school, and their willingness to explore more food options evolved as the project unfolded.*” Exercise, as well as other leisure participation, high self-esteem, and increased personal empowerment have been found to be associated with positive health behaviour and improved health outcomes.¹⁶ Finally, unlike the usual ebb and flow of participation rates in youth recreation programs,

it was impressive that they stayed the whole year - it's not typical. There was something about GirlPower that drew them. I couldn't get any girls to participate on the student council where they could make their own decisions and there was food too. I think they felt that GirlPower was their own time. The girls participated in physical activities during GirlPower, but not at Rec Night [another co-ed program]. Then, the girls sat on the stage. [I think] they really felt comfortable [at GirlPower].

The discrepancy between, and conflicting results of, the data concerning the program's impact on health represents one of the major limitations of this study, and points to the importance of using quantitative and qualitative measures that complement themselves in the best possible way.¹⁷ In the absence of such an ideal, qualitative evaluations may empower, and are more suitable for, disadvantaged participants.¹⁸

Community involvement

GirlPower participants articulated their interest in becoming part of the community, and echoing sentiments of other youth,¹⁹ saw recreation as a means for citizens to get to know and respect one another. In fact, participants initiated a “Bigger or Better” activity aimed at encouraging neighbours to contribute to others' well-being (Table II, Health Goal 1a). Participants further reported that GirlPower was

Funky because you get to hang with your friends practically until you have to

hit the sack and it's something you look forward to after school.

Groovy because it's a place where I can come to hang out.

A safe place because it's only for girls.

As Carmichael²⁰ notes, “a program that makes a young person feel safe, welcome, competent, connected, empowered and special, will probably enhance self-esteem.” In fact, evidence finds that such psychosocial constructs are positively associated with an individual's increased likelihood to engage in health-promoting behaviour.²¹

Quality of life

Personal empowerment encompasses several notions: self-perception of power and control, a sense of connectedness to and togetherness with others, a sense of self-worth dignity and trust.²²⁻²⁸ Pragmatically, personal empowerment develops skills in leadership, problem-solving and decision-making.²⁹⁻³¹ In exploring females' experiences of the meaning of empowerment, Shields³² found the development of self-value and a sense of connectedness to the community to be central themes of the empowerment process. So it was with GirlPower participants:

I was not very open to talk and say how I feel [but GirlPower] has opened a new point in my life to be able to speak up more.

I have never missed a day of GirlPower and I like GirlPower because we can talk to the group about stuff.

The other day we talked about some of the good things that had happened to us and some of the scary things. We brainstormed how to make sure if scary things happened we might act stronger and more confident.

As the group leader noted about the participants, “*by the end, they emerged as a connected group taking responsibility.*”

DISCUSSION

Our findings support both Raphael's³³ contention that studying the impact of the determinants of health includes analyzing the health impacts of recreation services and Putnam's⁵ thesis that social connectedness and support have salutary effects. To a

large extent, the latter factors may overcome the traditional epidemiological risk factors of smoking, physical inactivity, obesity, poor nutrition. As with lifestyle patterns, youths' participation in school activities, music groups, athletic teams and service groups, translates into participation in their community later in life.³⁴

Social capital, unlike human or physical capital, can be seen as a public good – a by-product of social relationships and activities. Therefore, its benefits (or lack thereof) are available to everyone. Social capital is also under-provided by private agents in the marketplace.³⁵ Because differences in health status, expectancy and outcomes are related to income inequality,³⁶ it has been argued that “social programs and the income tax system are the chief defensive weapons”³⁷ to combat inequities. The amount of social capital in, and the health of, populations appear to be positively related to the number of government social strategies and programs.⁵ As with other public goods (education, health care, transit), the beneficiaries of public recreation are not limited to the users of programs, suggesting that public tax investments in recreation yield high returns in social capital,³⁸ and reduce health inequities for all citizens.

While not couched in population health language, there is evidence that recreation programs function as an investment of social capital. Although limited by its scope and duration as an investigation, single-group design evaluation¹⁷ – such as GirlPower – suggests that recreation can be a promising ally for achieving the goals of population health. Other evidence supports our contention that public recreation serves to (i) establish connections and support with others in the community for youth and the homeless,^{39,40} (ii) reduce health inequities and dependency of health and social services among low-income citizens,^{41,42} (iii) bolster self-esteem, social competence and a sense of control;^{29,43,44} and, (iv) engage citizens in social transformation⁴⁵ and the life of the communities.^{5,46,47}

CONCLUSION

The qualitative findings suggest that GirlPower participants emerged from the

project with greater control over their own lives and feeling better connected. In a recent Canadian study,³⁸ 80% of survey respondents indicated that recreation services were worth the annual municipal tax. In fact, 95% of Canadians felt that the absence of public recreation services would detrimentally impact their community. Recreation benefits the community, non-users indicated, especially in terms of providing a place for youths, keeping them busy, and off the streets and is simply "good for kids." Investigating the relationship between public services and quality of life in Prince George, BC, 57% of citizens surveyed indicated a preference for more recreational activities for youth and almost half (48%) wanted a greater portion of their tax dollars to be reallocated for such services.⁴⁸

Tindall⁴⁹ has urged policy-makers and the public to shift their view of public recreation 'beyond fun and games,' to the higher status of 'essential services.' As Putnam⁵ suggests, recreational "... activities are anything but frills." We recognize that much work remains to be done to explain the power of recreation and its role in both creating social capital and curbing health inequities. In the meantime, we encourage the public health profession to recognize the potential for recreation to be used as a tool for doing so, and to collaborate on initiatives that might further impact population health.

REFERENCES

1. British Columbia. Provincial Health Officer. Health Goals for British Columbia. Victoria, BC: Ministry of Health and Ministry Responsible for Seniors, 1997.
2. Kawachi I, Kennedy BP, Lochner K, Prothro-Stith D. Social capital, income inequality and mortality. *Am J Public Health* 1997;87(9):1491-98.
3. Kawachi I, Kennedy BP. Health and social cohesion: Why care about income inequality? *Br Med J* 1997;314:1037-40.
4. Lomas J. Social capital and health: Implications for public health and epidemiology. *Soc Sci Med* 1998;47(9):1181-88.
5. Putnam RD. *Bowling Alone, The Collapse and Revival of American Community*. New York, NY: Simon & Schuster, 2000.
6. The Benefits of Parks and Recreation, A Catalogue. Ottawa, ON: Canadian Parks/Recreation Association, 1992.
7. The Benefits Catalogue. Ottawa, ON: Canadian Parks/Recreation Association, 1997.
8. Herchmer B. Determining benefits and outcomes in recreation. *Parks Recreation Can* 1997;54(6):14-15.
9. Henderson KA. The changer and the changed: Leisure research in the 1990's. *J Applied Recreation Res* 1993;18(1):1-18.
10. Searle M, Brayley R. *Leisure Services in Canada: An Introduction*. State College, PA: Venture Publishing, 1993.
11. Kraus R. *Leisure in a Changing America*. New York, NY: MacMillan College Publishing Company, Inc., 1994.
12. National Recreation Statement. National Conference of Ministers Responsible, Quebec, 1987.
13. Henderson KA, Grant AE. Recreation programming: Don't forget the girls. *Parks and Recreation* 1998;June:34-42.
14. Rutman D. *Profiles of Youth Well-Being*. Victoria, BC: University of Victoria, 1995.
15. Labonte R. Community empowerment and leisure. *J Leisureability* 1996;23(1):4-20.
16. Mechanic D. Issues in promoting health. *Soc Sci Med* 1999; 48:711-18.
17. Posavac C, Carey RG. *Program Evaluation Methods and Case Studies*. New Jersey: Prentice Hall, 1997.
18. Guba EG, Lincoln YS. *Fourth Generation Evaluation*. Newbury Park, CA: Sage, 1989.
19. Children's Commission. The Youth Report. 1999. Online at www.childservices.gov.bc.ca/reports/
20. Carmichael D. Programming for self-esteem: Considerations for community leaders in recreation, sport and education. *Parks and Recreation Canada* 1997;54(6):16-18.
21. Hyndman B. *The Use of Social Science Theory to Develop Health Promotion Programs*. Toronto: Centre for Health Promotion/Participation, 1993.
22. Jackson S, Baron V, Cleverly S, Dixon J, Ferguson J, Jackson L, et al. Public Health Practitioners' Perspectives on Empowerment: Definition, Strategies and Indicators. North York, ON: North York Community Health Promotion Unit, 1996.
23. Brown C. Social work education as empowerment. In: Chamberlain E (Ed.), *Change and Continuity in Australian Social Work*. Melbourne: Longman Cheshire, 1988.
24. Lord J. Personal empowerment and active living. In: Quinney HA, Gauvin L, Wall AET (Eds.), *Toward Active Living*. Windsor, ON: Human Kinetics, 1994.
25. McCarron G, Tenenbein S, Hindley P. Communication, Belonging and Health. In: Hayes M, Foster L, Foster H (Eds.), *The Determinants of Population Health*. Victoria, BC: University of Victoria, 1994.
26. Riger S. What's wrong with empowerment? *Am J Community Psychol* 1993;21(3):279-93.
27. Wallerstein N. Powerlessness, empowerment and health: Implications for health promotion programs. *Am J Health Prom* 1992;6:197-205.
28. Searle M. Empowering the citizen: Advocacy for recreation and parks. *Recreation Canada* 1990;May:36-38.
29. Lord J, Hutchison P. Empowerment, disability and the community context. *Rehabilitation Digest* 1997;27(2):13-15.
30. Lord J, Hutchison P. The process of empowerment: Implications for theory and practice. *Can J Mental Health* 1993;12(1):5-22.
31. Haggard LM, Williams DR. Self-identity benefits of leisure activities. In: Driver BL, Brown PJ, Peterson GL (Eds.), *Benefits of Leisure*. State College, PA: Venture Publishing, 1991.
32. Shields L. Women's experiences of the meaning of empowerment. *Qual Health Research* 1995;5(1):15-35.
33. Raphael D. Public health responses to health inequalities. *Can J Public Health* 1999;89(6):380-81.
34. Youniss J, McLellan JA, Yates M. What we know about engendering civic identity. *Am Behav Scientist* 1997;March/April:620-31.
35. Putnam R. The prosperous community: Social capital and public life. *Am Prospect* www.prospect.org/archives/13/13putn.html
36. Wilkinson RG. *Unhealthy Societies*. London: Routledge, 1996.
37. Battle K. Incomes and outcomes. *Can J Public Health* 1999;90(6):366-67.
38. Harper J, Neider D, Godbey G, Lamont D. The Use and Benefits of Local Government Parks and Recreation Services - A Canadian Perspective. Executive Summary. University of Manitoba: Health, Leisure and Human Performance Research Institute, 1997.
39. National Parks and Recreation Association. *Parks and Recreation . . . The Benefits are Endless*. Arlington, VA: National Parks and Recreation, 1994.
40. Ward J. The John Innes Outreach Project: A Study of Recreational Needs of Homeless and Recently Homeless People. Toronto: City of Toronto Department of Parks and Recreation, 1990.
41. Haldane S. Scientific research supports recreation for children living in poverty. *Parks & Recreation Canada* 2001;January:40-41.
42. Frisby W, Fenton J. *Leisure Access - Enhancing Recreation Opportunities for Those Living in Poverty*. Vancouver, BC: JW Sporta Limited, 1998.
43. Cato B, Chen W, Rainford N. WISE-UP: Successful prevention project. *Parks and Recreation* 1999;March:91-97.
44. Reid D, van Dreunen E. Leisure as a social transformation mechanism in community development practice. *J Applied Recreation Research* 1996;21(1):45-65.
45. Alberta Community Development, Alberta Environmental Protection and Cities of Calgary, Edmonton, Lethbridge and Red Deer. Alberta Recreation Survey Analysis. Hamilton Ross Systematics, 1996.
46. Ontario Ministry of Culture, Tourism and Recreation. Recreation Research, Communiqué No. 20, 1995.
47. McKay S. Research findings related to the potential of recreation in delinquency intervention. *Trends: Parks, Practice, Program* 1993;30(4):27-30.
48. Michalos AC, Zumbo BD. Public services and quality of life. *Social Indicators Res* 1999;48:125-56.
49. Tindall B. Beyond 'fun and games.' *Parks and Recreation* 1995;March:86-93.
50. Harter S. Manual for the Self-Perception Profile for Adolescents. University of Denver, 1988.

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