

Research UPDATE

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Summary

This article highlights research in Edmonton, Alberta that used key stakeholder perspectives to examine factors that promote or prevent the development of neighbourhoods in urban areas where walking, being active, and buying healthy, affordable food are easy.

Key Terms

Food security is the degree of access that people have to healthy and affordable food, within their community or neighbourhood. A food secure neighbourhood has consistently good access to healthy and affordable food over time.

Street connectivity refers to how well streets, parks and paths are interconnected within a community, to facilitate active forms of transportation, such as walking and cycling.

Healthy neighbourhoods generally refer to those where most residents have easy and equal access or opportunity to walk and be physically active, and to buying healthy, affordable food.

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Community Leaders' Perspectives on Building Healthier Neighbourhoods in Urban Settings

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Background

Recently, the link between the built environment, food security and physical inactivity has captured the public's attention (Martin & Ferris, 2007; Saelens, Sallis, & Frank, 2003). Research shows that people who live in neighbourhoods with good street connectivity and housing density do more walking and cycling and have lower rates of obesity than people who live in residential-only neighbourhoods (Saelens et al., 2003; Spence, Cutumisu, Edwards, & Evans, 2008).



As a result, the general public, city leaders and urban planners are paying closer attention to how our communities are designed. The purpose of this study was to find out what influences the planning decisions made by key stakeholders in Edmonton, a city with a population over one million. We wanted to find out what might promote or prevent the development of neighbourhoods where walking, being active, and buying healthy, affordable food are easy.

Interviewees and Questions

Seventeen stakeholders were interviewed for the study.

- Nine were employees of the municipal and public health sector, e.g., those that work in transportation, planning, and community initiatives.
- Three were city councillors.
- Five were from the private sector, e.g., land developers.

Participants were asked to explain how they think the built environment might influence health behaviours (physical activity and diet) at a neighbourhood level. They were also asked what role they think their organization plays in the creation of food secure and walkable neighbourhoods.

Municipal and public health sector employees

This group supported the development of neighbourhoods with more housing density, street connectivity and better access to healthy and affordable food. Yet, participants also said it is important to balance a vision for an efficient, attractive city with the demands of the general public and the realities of the marketplace.

As one municipal official said, "We continue to envision or dream about a type of neighbourhood...that seems to be very much at odds with the marketplace...our visions of walkable, sustainable neighbourhoods just don't [meet] the bottom line."

Community Leaders' Perspectives on Building Healthier Neighbourhoods... (Continued from front)

Barriers to the development of healthy neighbourhoods included lack of financial resources, poor public and stakeholder awareness, and existing social norms. For example, density is one of the features of walkable neighbourhoods. But data from this study show a public opposition to more density. One participant put it this way, *"Not everyone is in support of density, immediately people think of slums and run-down buildings..."*

More discussion between the private and public sectors was put forward as one possible solution.

City councillors

City councillors also liked the idea of these neighbourhoods but reminded us that economics and car reliance are big barriers. One councillor asked: *"Who is it that pays, or should pay, and for what? Generally speaking ... everything has a cost ... who's going to pay the costs, is it going to be general tax dollars, is it going to be private, is it going to be users?"*

City councillors also said that because car culture is so socially acceptable in Alberta, people willingly buy housing in areas where they have drive to and from work, school, shopping, and recreation. Therefore, people don't often make lifestyle choices such as walking or biking to work, or taking public transportation.

One councillor explained, *"People are generally car-dependent, so [suburban] neighbourhoods are going to continue to be built."*

However, this group did notice shifting consumer demands and increased transit use, with one councillor commenting, *"Our ridership last year was the highest it's ever been."*

This group also suggested that more education for children and youth about these issues and better use of local agriculture (e.g., more public farmer's markets) may be helpful steps to take.

Private sector


Participants in the private sector said they noticed recent "media buzz around health and environmental issues" which made the link between where people live and health behaviours such as physical activity "important considerations" in their own work. However, many did not believe that creating walkable environments would result in more people walking. Many put the responsibility to be active upon the individual.

Car culture and car reliance was identified again as a social barrier to change. Yet there was a shared belief that, *"...the public has a responsibility to manage their expectations"* when it comes to public demand for bigger roads and lower housing costs.

On the positive side, private sector representatives identified increasing public awareness of community design and well-being as being an important facilitator that would make their work easier.

Summary

All groups cited economic constraints and identified existing social norms, attitudes, and behaviours as barriers to the development of healthier built environments.

However, all groups also identified current or potential facilitators, such as growing public awareness and increasing collaboration between the public and private sectors, providing a note of optimism. 

About the Authors

Marianne Clark is a doctoral student in the Faculty of Physical Education and Recreation at the University of Alberta. Her research interests include psycho-social determinants of physical activity and the fitness practices and experiences of girls and women.

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This study is part of a larger research project, *"A longitudinal examination of the relationship between the built environment, physical activity, and social factors within the Capital Health Region of Alberta,"* a team grant in the area of the built environment, obesity and health, funded by the Heart and Stroke Foundation of Canada and the Canadian Institutes of Health Research.



Using Motivational Interviewing to Encourage People with Diabetes to Increase Physical Activity

Summary

This article explores the importance of exercise for people living with diabetes and examines how motivational interviewing may help boost motivation and increase physical activity levels for some people.

Key Terms

Ambivalence

When a person has mixed emotions that interfere with their ability or willingness to change. For example, the individual may feel worried that changes are too large to be accomplished or they may be apprehensive about changing or abandoning their current lifestyle. Ambivalence may be high when the person has to give something up in order to add something like physical activity into their lives.

Motivational interviewing

A counselling method that focuses on increasing a client's or a patient's own motivation, by exploring their ambivalence about changing their behaviour, e.g., to include more physical activity in their lives. Open-ended questions, active listening, summarizing, expressing empathy, rolling with resistance and supporting self-efficacy are among the key aspects of this approach.

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Background

Despite the strong evidence demonstrating the beneficial effects of physical activity for people with type 2 diabetes, much of this population remains inactive. Up to 72% of Canadians with type 2 diabetes are not meeting recommended guidelines for physical activity (Plotnikoff et al., 2006). Another issue is that many people with diabetes who have started a regular exercise program do not continue it long-term.



This article discusses how motivational interviewing will be used by researchers to potentially encourage and motivate people with type 2 diabetes to be more active and maintain an active lifestyle over time.

Prevalence of Diabetes in Alberta

In Alberta, the prevalence of diabetes is a challenging health issue.

- Every day 43 people are diagnosed with diabetes in Alberta.
- More than 1 in 20 Albertans have been diagnosed with diabetes; more than 160,000 live with diabetes (Alberta Diabetes Atlas, 2009).
- It is estimated that 90 to 95% of people with diabetes in Alberta have type 2 diabetes. Typically, these involve "adult onset" diabetes. The other 5 to 10% are people with type 1 diabetes, who are insulin dependent, and have usually been diagnosed in childhood.
- Diabetes is the leading cause of blindness, renal failure and non-traumatic amputation in Canadian adults.
- The risk of heart disease is 2 to 4 times higher in people with diabetes compared to people without diabetes.
- Cardiovascular disease is the leading cause of death in people with diabetes (Canadian Diabetes Association, 2008).

Exercise is Part of the Solution

Regular exercise, along with a healthy diet and maintaining a healthy body weight, are important factors for effective management of type 2 diabetes. Exercise can help people with type 2 diabetes control their blood sugar, increase insulin sensitivity, control body weight and reduce the risk of heart disease.

The Canadian Diabetes Association recommends that people with diabetes:

- achieve a minimum of 150 minutes per week of moderate intensity aerobic exercise; and
- perform resistance training three times per week.

Motivating Change

Changing behaviour is hard, and being hesitant about change is normal and a part of human nature. Many people looking to make a behaviour change can be ambivalent about it; they "want" and "don't want" to make the change.

Motivational interviewing was developed as a way to help people work through ambivalence and commit to healthy change. Miller & Rollnick (2002) define motivational interviewing as

Using Motivational Interviewing to Encourage People ... (Continued from page 3)

"a client-centered approach designed to help people initiate and maintain health behaviour change. It is a technique designed to activate patients' own motivation for change by exploring and resolving ambivalence."

By asking people open-ended questions, listening actively, paraphrasing the interviewee and encouraging the interviewee, an interviewer can begin to uncover motivations. Through such methods, the interviewee ends up telling themselves and the interviewer why they want to change.

In talking with people about behaviour change, you want to create an atmosphere that is favourable to change by following four general principles.

- Express Empathy
 - ⊙ Demonstrate a non-judgmental understanding of the person's perspective.
 - ⊙ Example: *"It must be difficult for you to make time for exercise when you are so busy."*
- Develop Discrepancy
 - ⊙ Helping people explore gaps between their current behaviour and the lives they would like to lead.
 - ⊙ Example: *"How would things be a year from now if you were able to exercise regularly?"*
- Support Self-efficacy
 - ⊙ Work to encourage confidence in performing physical activity and in overcoming barriers.
 - ⊙ Example: *"The fact that you are taking the time to discuss this issue with me now is a big step towards making positive change."*
- Rolling with Resistance
 - ⊙ Invite the person to enter the process of problem solving.
 - ⊙ Example: *"What do you dislike the most about exercise?"*

Research Steps

Our research goal is to examine how useful motivational interviewing is in helping people with type 2 diabetes increase and maintain their physical activity.

In our research trial, participants will be people with type 2 diabetes who have entered into an eight-week supervised exercise program. Participants will be randomly assigned to one of two groups.

- One group will receive standard care during the eight-week program.
- The other group will receive standard care, and each person will participate individually in two motivational interview sessions.

The primary outcome will be physical activity measured by intensity and minutes per week, using the Godin Leisure-Time Exercise Questionnaire (Godin & Shepard, 1987). The secondary outcome will be blood glucose control measured by hemoglobin A1c.

Outcomes will be measured in both groups at baseline, at the end of the eight-week program, and at three and six months after completing the program. ↻

About the Authors

Marni Armstrong, BSc, is a graduate student at the University of Calgary. Her research examines physical activity levels of people with type 2 diabetes and how to help people maintain physical activity. She also works as a kinesiologist in Alberta Health Services' Living Well with a Chronic Condition program.



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About the Organization

The authors of this article are associated with the PANDA (Physical Activity and Nutrition for Diabetes in Alberta) Research Project. For more information about the project, visit <http://www.afns.ualberta.ca/PANDA.cfm>.

