

research update



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The NUDGE Project (Neighbourhood Urban Design to Gain Exercise!)

As suburbs grow so do waistlines. Neighbourhoods that discriminate against walking promote the national obesity epidemic. This is particularly true of post-war suburbs, an urban form not designed for walking.

Active living means building physical activity into daily life, decreasing the need to set aside dedicated time to “exercise” (CFLRI, 2000). Although walking is a simple activity, urban pedestrians, particularly in their own neighbourhoods, require an environment that supports walking and protects against walkers’ vulnerability to external factors, such as weather, pollution, and traffic.

THE ENVIRONMENT AND PHYSICAL ACTIVITY

The relationship between the physical environment and physical activity is complex. As it is generally agreed that the environment influences public health, it is important to advocate for better public infrastructure for walking, cycling, and other physical activities.

There is also a growing consensus that walkable neighbourhoods are more livable communities with higher measures of sustainability (natural and economic), social interaction, and equity. Walkability is now an objective in many innovative urban designs (Bentley, Alcock, Murrain, McGlyn, & Smith, 1985; Calthorpe 1993; Katz 1994). As Calthorpe (1993) put it, “pedestrians are the lost measure of a community—they set the scale for both the centre and edge of our neighbourhoods.”

ORIGINS OF THE NUDGE PROJECT

University of Calgary researchers believe that they can capitalize on the public interest in obesity through collaborative research to focus attention on individual behaviour and environmental design and on the relationships between behaviour and design (Lau, 1999). The NUDGE project is intended as a gateway into collaborative work involving community interventions for increased physical activity.

Previous research at the University of Calgary has analysed the ways in which neighbourhood form has varied in terms of the pedestrian environment, specifically in the degree of walkability (Doyle-Baker, Sandalack, & Kolody, 2004).

Following the precedent-setting study of Southworth and Owens (1993), we selected three neighbourhoods as case studies. These neighbourhoods come from three eras and illustrate three street patterns and development types. We conducted an urban form analysis in which we mapped density, block structure, land use, and city context. We then analysed these neighbourhoods in terms of connectivity, ease of navigation and access, amenities, safety and comfort, and variety and interest.

Although none of the neighbourhoods scored perfectly, the gridiron street pattern and traditional neighbourhood design best exemplified characteristics that support a pedestrian-friendly environment. On the other hand, the “loops and lollipops” pattern of contemporary suburban design generally lacked these characteristics.

METHODOLOGY

Our proposed research intends to build on these earlier studies to determine if people living in walkable neighbourhoods actually walk more than those who live in less walkable neighbourhoods. We aim to identify factors in the

physical environment in Calgary that may influence walking for leisure and commuting.

Garrison Woods (a newer neighbourhood designed according to the principles of New Urbanism, a concept that advocates walkability (Katz, 1994)) will be the case study site for this pilot project. Garrison Woods exemplifies the higher densities, permeable street pattern, mix of land uses (defined as the intermingling of residences, shops, and offices), and street design that should produce a walkable neighbourhood.

For example, there is a strong positive association between active commuting and a commercial building located within 100 m of the home (Wendel-Vos et al., 2004). Simply put, in a mixed-use neighbourhood, there are places nearby that people want to visit on foot.

Somerset, built at the same time as Garrison Woods, but with a conventional suburban design, will provide the control study site. Somerset is made up of single-family residences, with a less permeable structure and fewer potential pedestrian links to retail and office buildings.

COMPARATIVE ANALYSIS

We will collect data at two levels: neighbourhood and individual. Neighbourhood data will include information on public space, including plazas, squares, recreational space, and sports fields. The individual level will include three self-administered questionnaires:

- demographic variables;
- the Godin Leisure Time Exercise Questionnaire (Godin & Shephard, 1985);
- the NEWS (Neighbourhood Environment Walkability Scale)—a questionnaire designed to find out about the way people perceive their neighbourhood (this scale identifies types of residences, stores, access to amenities, types of streets, places for walking, and neighbourhood safety in terms of traffic and crime) (Saelens, Sallis, Black, & Chen, 2003).

THE NUDGE FACTOR

In summary, although we know that urban form influences people’s choice to walk, a direct correlation between neighbourhood design and the activity of walking has not been demonstrated. This study will identify whether people who live in walkable neighbourhoods walk more than those who live in less walkable neighbourhoods.

Researchers at the University of Calgary hope to draw attention to the most recognizable urban design characteristics associated with walkable neighbourhoods. We hope that planners will use our study to produce urban designs that help people to live more actively.

P. K. Doyle-Baker, DPH/PhD, Human Performance Laboratory, Faculty of Kinesiology, University of Calgary, and Bev Sandalack, PhD, Environmental Design, University of Calgary. This study is funded by a one-time research grant from the Alberta Centre for Active Living.

Young Canadian Aboriginal Women's Feelings about their Bodies

Few research studies have focused on the body-related emotional experiences of young Aboriginal women. Previous studies show that many of these young women are dissatisfied with their bodies (Gittelsohn et al., 1996; Neumark-Sztainer, Story, Resnick, & Blum, 1997; Story et al., 1994). However, this research has limitations: most studies focus on American youth, are interested primarily in negative emotions such as body dissatisfaction, and have used survey or questionnaire data to generalize to larger populations.

METHODOLOGY

My Master's thesis focused on the body-related emotions of young Canadian Aboriginal women. Four women participated in this qualitative case study: three identified themselves as Aboriginal (one 14-year-old, two 18-year-olds) and one 18-year-old who identified herself as non-Aboriginal. Although I intended to only include Aboriginal women, the participants all belonged to a mentorship group for young women who had faced adversity. The participants and I saw this non-Aboriginal woman as an integral part of this group.

I collected data over several phases: two rapport-building phases to learn about each other and build trust, two focus groups, four one-on-one interviews, and an art project. I followed Stake's (1995) guidelines for case study analysis.

STUDY RESULTS

Five themes emerged from my study.

1. Conflicting Cultures

Participants saw Aboriginal culture and urban white culture as conflicting. Some participants mentioned the difficulties of moving between their urban residence and their home reserve. Referring to the urban community where she goes to school, one participant explained: "I find that a lot of people are really white around here. They're all concerned about their weight and everything, but out on the reserve you can stuff your face and nobody would care."

2. The Need to Belong

The women all felt it was important to belong to a community. As one participant stated, "belonging [is an issue, because]...we can never be like white people." Another participant who had moved from a predominantly white city area to another area with more Aboriginal people commented: "we moved to my side [of the city], to more Native people...then finally I got to be around my own people...I was more comfortable and more happy."

3. Personal Identity

Participants also noted the importance of personal identity. As one said, "I stopped thinking about trying to be like everybody else and I just started to conform into my own body, you know, started fitting my own body."

4. Journey to Acceptance

Although participants were generally happy with their bodies, they saw this as the result of a personal journey. When I asked how they became satisfied with their bodies, one explained, with agreement from the others: "just accepting it...having to look at yourself every day in the mirror, and you either fall into this deep depression of hating yourself or you just say 'screw everybody. Why am I going to let them [society in general] make me hate myself?'"

5. The Body Affects Everything

Participants felt that the body affects everything (or, at least, other aspects of their lives). As one participant said, "the body affects so much more than people think; like it's unbelievable. If we could all as a society get past the body-thing." The other women felt that we would all be better off if society focused less on the body.

FUTURE DIRECTIONS

The participants were generally satisfied with their bodies, a finding inconsistent with most previous research. Although these participants may be part of the reportedly small percentage of Aboriginal women satisfied with their bodies, this study allowed participants to reflect on their emotions' complexity and context-specificity.

For example, participants recognized the difficulty of living up to Aboriginal images when these conflicted with dominant urban images. Furthermore, although participants wanted to belong to a group or a community, they knew that they were different. However, despite adversity, participants demonstrated confidence and autonomy (two traits associated with resiliency).

This study raises the question of why some young women seem to be "okay" given the significance of body issues to young women in general. We also need to find out whether this group's body-related emotions are common among a larger population of young Aboriginal women.

Future researchers need to work towards change. As one young woman suggested, "there should be young people's groups, like an organization. Have rallies towards freedom of body and then all these other young people would see it." She proposed a public place where young women would not have to care about their bodies. Heilman (1998) identified schools as possible sites—educators can help instil confidence, especially among young women. Researchers interested in the body-related emotions of young Aboriginal women may want to partner with schools, especially when working towards change.

Tara-Leigh Fleming, MSc, University of Saskatchewan (tara-leigh.fleming@usask.ca), with Kent C. Kowalski, PhD. The Canadian Institutes of Health Research funded Tara Fleming's Master's program through SPHERU's Community and Population Health Research Training Program (www.cphr.ca).