research update

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Dog Ownership and Regular Walking

Background

Current physical activity promotion research has focused on walking, because it is generally accessible, low cost, convenient, and the most popular reported physical activity (CFLRI, 2000; Siegel, Brackbill, & Heath, 1995). Dog ownership and walking is one health-promotion factor that has received little attention.

Research on physical activity levels and dog ownership has shown mixed results (Anderson, Reid , & Jennings, 1992; Bauman, Russell, Furber, & Dobson, 2001; Dembicki & Anderson, 1996; Giles-Corti, & Donovan, 2003; Serpell, 1991). Several limitations in these studies make interpreting the results difficult, including

- a mix of both urban and rural participants;
- the use of convenience samples (i.e., samples that lack population representation);
- the fact that the studies did not focus on the primary pet owner;
- a lack of theory-based research to evaluate the reasons dog ownership and walking are related.

The purpose of our study was to go beyond previous studies by

- exploring dog ownership and walking in an urban setting where the dog was a household pet (as opposed to a working or guard dog);
- ensuring that the person filling out the questionnaire was the primary provider for the dog; and
- examining potential psychological mediators between dog ownership and physical activity.

We wanted to find out whether the sense of respons-ibility or obligation for the health and well being of the dog is what drives the relationship between physical activity and dog ownership.

Method

A random sample of men (n = 177) and women (n = 174) between 20 and 80 participated in a random mail survey in the Capital Region District of British Columbia (total response rate = 36%). Questionnaires collected information about demographics, dog ownership, leisure-time walking, physical activity levels (using the Godin Leisure-Time Questionnaire, Godin & Shephard, 1985), and walking motivation (please see information on the theory of planned behaviour in Ajzen, 1991).

Results

After accounting for sociodemographic factors (e.g., age, gender, income), we found that dog owners spent more time in mild and moderate physical activities and walked on average 300 minutes per week. In contrast, non-dog owners walked on average 168 minutes per week ($p < .01$). Moreover, obligation to the dog explained an additional 11% variance in walking behaviour (after controlling for walking-related intentions, perceived control, social norms, and attitudes). An earlier analysis in Baron & Kenny (1986) had suggested that a feeling of obligation to the dog motivated the physical activity of walking the dog.

Conclusions

Ours was the first North American study to collect walking data on dog owners in a completely urban setting and the first study to examine dog ownership and regular walking within a full psychological model of walking motivation. This study also included a sample representative of dog ownership in the Canadian population.

After controlling for demographic variations, dog owners reported more walking than non-dog owners. The difference in walking between the two groups is the largest in the literature to date. We also found that dog walkers walked less and were less physically active than non-dog owners once dog walking was removed (which suggests that dog owners choose to be active with their dogs).

We found that the sense of responsibility/obligation for the health and well being of one's dog is the link between physical activity and dog ownership. A higher level of walking is only associated with dog ownership when people accept responsibility for the dog. About 25% of dog owners were not walking their dogs, which suggests that an intervention promoting taking responsibility for one's dog may be helpful.

Finally, using a full psychological model of walking motivation suggests that our current motivation theories for understanding physical activity do not account for a factor such as dog obligation.

This study had certain limitations.

- The results can only be generalized to urban populations with similar weather patterns and demographics as the south Vancouver Island region of British Columbia.
- All measures were self-reported. We need to try to copy these results with objective physical activity measures.
- Cross-sectional designs such as this are limited in determining cause and effect. We still need to find out whether people get a pet because they are interested in walking or if the pet encourages walking.
- We only had a 36% response rate. If the non-respondents are different from the respondents, we could have unknown biases in these data.

You can view the full study in Brown & Rhodes, 2006.

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Research and education for the promotion of physical activity

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Decisions, Decisions...Fries with or without Gravy? A Muffin or an Apple? Brown Bag Lunch or Buy?

Because children spend as much time at school as in any other environment, the food they eat at school contributes significantly to the overall quality of their diet. Good nutrition improves and maintains physical and mental health, which can result in children missing less school and being better able to actively learn when at school (Pollitt & Mathews' 1998 study cited in Cueto, 2001). A healthy nutritional environment can positively affect the nutritional intake of students (Kubik, Lytle, Hannan, Perry & Story, 2003) and influence their academic, physical, and social development. For example, students who eat a nutritious breakfast perform better in the classroom (Taras & Potts-Datema, 2005).

The Alberta Coalition for Healthy School Communities and Dietitians of Canada examined the literature to help Alberta schools create healthier school environments. The resulting background paper used the acronym "SUCCESS" to create a framework for a comprehensive school health approach to nutrition. (The essential features of the comprehensive school health approach are the connections among physical environments, instruction, support networks, and services.)

What Is The Success Framework?

S = School Food and Nutrition Guidelines. Schools can establish school food and nutrition guidelines to help make the healthy choice the easy choice. These guidelines help schools decide the specific foods to offer within the school by reducing or eliminating foods with a low nutritional value. The guidelines also communicate to all key stakeholders the importance of nutrition.

The guidelines should be broad enough to address more than one aspect of the food sold and eaten in the school, e.g., the guidelines could deal with a range of issues, such as vending machines and alternatives to using candy as rewards in classrooms.

U = Use Foods Served in School to Reinforce Nutrition Guidelines and Curriculum. Making healthy food choices available in schools facilitates healthier eating. The availability of healthy food has an impact on what people eat. You can find many examples of success stories about food changes in schools (e.g., Calgary Health Region, 2005; CDC, 2005).

One of the barriers frequently cited in research and by local Alberta schools is a lack of understanding about what constitutes a healthier food choice (McKenna, 2003). Many provinces have provided schools with clear direction about which foods are most nutritious. For more information about healthier food choices contact your local community nutritionist.

C = Curriculum that Involves Experiential Nutrition Education. The American Dietetic Association (2003) sees nutrition education as critical to a comprehensive school health approach and reports that nutrition behaviour change in children relates to the amount of nutrition instruction they receive.

Experiential learning offers opportunities to practise knowledge gained in the classroom by selecting and preparing foods. Examples of experiential learning opportunities include making vending machine choices and preparing food in class. There are synergistic learning gains if the nutrition curriculum is integrated into other subject areas and when foods sold at school complement the nutrition curriculum.

C = Community Programs, Resources, and Services' Involvement in Healthy Eating. Communities influence the school environment and students' nutritional habits. Strong partnerships between schools and regional health authority community nutritionists and health-promotion staff are essential to support nutritional changes. Consider fostering links with other agencies such as Breakfast for Learning, the Alberta Heart and Stroke Foundation, Alberta Milk, and food and beverage suppliers to create a collaborative approach to developing school projects and for innovative ideas about food and nutrition at school.

E = Encourage Parent and Family Involvement in Healthy Eating. As "gatekeepers" and role models, parents provide opportunities for their children to make healthy food choices. Children may also become agents of change for their families because of nutritional practices learned at school. Parental involvement in school food initiatives is essential for sustainable success..

S = Student and Youth Involvement in Healthy Eating. Children and youth are often untapped resources in schools. However, more schools are involving students in healthy activities, including decisions about foods to serve in schools and peer-education opportunities. Students are more likely to accept new foods at school if they are consulted about the changes. For example, research on youth involvement and the promotion of healthy eating indicates that students who consider themselves highly involved in a peer-education program eat healthier foods than their non-involved counterparts (Hamden, Story, French, Fulkerson, & Nelson, 2005)

S = School Staff Involvement in Healthy Eating. Schools with successful comprehensive school health approaches to nutrition have identified the importance of support from the school administration and staff (Hansford, 2005). In addition, schools are a major employer in Alberta. Workplace wellness initiatives can also be effective in promoting healthy behaviours to reduce chronic disease.

Implementing The Success Framework

The following suggestions can help you effectively implement the SUCCESS framework..

Find a Champion. This champion can come from any level of decision making in the school community and can be a parent; super-intendent; group of parents, students, or staff; or school health advisory committee.

Create Your Team. All members of the school community should be represented on your team.

Conduct a Capacity Assessment. Assess the school food environment, the school nutrition curriculum, food services available, and existing community links. You can find an example of a school healthy eating assessment tool on the Knowledge Network website (Knowledge Network, BC Dairy Foundation, & Province of British Columbia, nd).

Develop an Action Plan. It is critical that schools write guidelines and make decisions based on what is most relevant to their school. There is no "cookie cutter" approach to creating a comprehensive school health approach to nutrition. Each school needs its own action plan. You can find an example of an assessment and action planning tool on the Knowledge Network website (Knowledge Network, BC Dairy Foundation, & Province of British Columbia, nd).

Activate the Plan. A plan that starts with small steps that lead to quick success is often the best. Be sure to involve all members on your team to build support and create sustainability.

Evaluate. Evaluation provides key evidence to enhance programming and influence decision makers. It is important to monitor your progress and allow for enough time to show changes.

Celebrate Your Successes! Communicating activities and successes to the school community is one of the best ways to support your message about improving school nutrition. Your communications may also bring additional members to your team and gain more support for your initiative.

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Research and education for the promotion of physical activity

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