



ELSEVIER

Contents lists available at ScienceDirect

Journal of Transport & Health

journal homepage: www.elsevier.com/locate/jth

“Putting school travel on the map”: Facilitators and barriers to implementing school travel planning in Canada

George Mammen^{a,*}, Michelle R. Stone^b, Ron Buliung^c, Guy Faulkner^a^a Faculty of Kinesiology and Physical Education, University of Toronto, Toronto, Ontario, Canada^b School of Health and Human Performance, Dalhousie University, Halifax, Nova Scotia, Canada^c Department of Geography, University of Toronto Mississauga, Toronto, Ontario, Canada

ARTICLE INFO

Article history:

Received 24 February 2015

Received in revised form

13 May 2015

Accepted 15 May 2015

Available online 4 June 2015

Keywords:

Active school travel

School travel planning

Physical activity

Walking

Driving

Qualitative

ABSTRACT

Objective: The objective of this study was to identify facilitators and barriers to effective School Travel Planning (STP) implementation.

Methods: Interviews were conducted with 34 Canadian STP facilitators. Participants were interviewed regarding: i) perceptions of STP success; ii) facilitators and barriers to effective STP implementation; and iii) recommendations for improving STP. A thematic analysis was used to inductively code and categorize data units into themes.

Results: Participants were predominantly female, worked within the health sector, and had implemented STP in the province of Ontario. All facilitators perceived STP to be successful although definitions of ‘success’ varied. Factors facilitating effective implementation included the well-designed STP model, collaboration between multidisciplinary stakeholders, and the facilitators’ leadership role. Conversely, the lack of stakeholder involvement from principals, parents, and students, was identified as a barrier to effective implementation. However, the primary factor that hindered implementation was the lack of time given by funding organizations to implement STP. To observe more effective and sustainable STP interventions in Canada, the facilitators acknowledged the pressing need for multi-level government funding to develop supporting infrastructure for AST, fund facilitators, and implement policies to foster greater AST.

Conclusion: Overall, STP was considered successful in a variety of ways including increased awareness, rates of AST, multidisciplinary collaborations, and school-specific strategies to overcome AST barriers. The study points to a variety of factors affecting implementation. However, there was some evidence to suggest that the existing STP model is likely a short-term ‘band-aid’ solution to increase AST given the lack of time and sustained funding to support its implementation. Findings further call for greater investment in resources and capacity to support AST interventions like STP, particularly at the Canadian provincial and municipal levels.

© 2015 Elsevier Ltd. All rights reserved.

1. Introduction

The World Health Organization recommends children (i.e., aged 5–17) engage in 60 min of daily moderate–vigorous physical activity (WHO, 2010). A recent study of global variation in physical activity (PA) in 15 countries (Tremblay et al., 2014) shows that, overall, children are not accumulating this amount of PA needed for optimal health. Physical inactivity among children is thus regarded as a global pandemic (Kohl et al., 2012). With a focus on Canada, a population-level analysis led by Colley et al. (2011) found that approximately 93% of children are not meeting PA guidelines. With low levels of PA in Canada (and internationally), more research, practice, and policy focus is required in adopting a holistic approach to PA. In addition to structured sources of PA (e.g., sports), helping increase unstructured sources of PA through active forms of living, such as Active School Travel (AST; e.g., walking and biking to/from school) could help children accumulate greater overall PA (Subramaniam, 2011).

Recent reviews demonstrate AST’s contribution in increasing daily PA and helping children meet PA guidelines (Faulkner et al., 2009; Larouche et al., 2014). AST is also associated with decreased BMI over time (Mendoza and Liu, 2014), improved cardio-vascular health

* Corresponding author. Tel.: +1 4165 284 420.

E-mail address: george.mammen@mail.utoronto.ca (G. Mammen).

(Larouche et al., 2014), increased alertness and attention during the school day (Martinez-Gomez et al., 2011), greater independent mobility (Carver et al., 2014), reduced stress (Lambiase et al., 2010), and decreased risk of lung disease via reduced air pollution (Wilson et al., 2007; Larouche, 2012).

Despite health and environmental benefits, evidence indicates a temporal decline in AST in many countries over the last five decades (Active Healthy Kids Canada, 2014). The reasons for this decrease are complex. For instance, AST reviews (Garrard, 2011; Sirard and Slater, 2008) have identified factors associated with all socio-ecological levels of influence, including intrapersonal (e.g., age and attitudes), interpersonal (e.g., family demographics), organizational (e.g., school culture), social (e.g., culture of convenience), environmental (e.g., street density/connectivity), and political (e.g., transportation and school siting policies). Therefore, interventions designed to tackle these multiple levels of influence are more likely to facilitate greater changes in AST than interventions addressing only one or two levels of influence (Chillón et al., 2011). In Canada, one comprehensive intervention that is gaining practice and policy attention in addressing the multifaceted factors influencing AST is School Travel Planning (STP).

STP is a collaborative process involving multidisciplinary stakeholders to assess and intervene on AST barriers by means of a documented 'school travel plan.' These stakeholders comprise a STP committee with representation from various disciplines including safety (e.g., police officer), transportation (e.g., traffic engineer), municipal planning (e.g., member of City council), health (e.g., public health nurse), and education (e.g., school administration/teachers, student, and parent representatives). Based on their perspective, the stakeholders play a role in identifying strategies to alleviate school-specific barriers. A key component of the STP model is the designation of an individual as a STP 'facilitator'. These individuals lead the delivery of STP implementation in schools by: helping establish a school level STP committee; collaborating with multidisciplinary stakeholders invested in STP to increase AST levels; organizing monthly/bi-monthly STP committee meetings; developing and updating the written 'school travel plan' document; and assisting in solution identification. In Canada, a STP facilitator may work with a number of schools ranging from two to six. Though STP may appear as a comprehensive and promising approach to increase AST levels in children, evidence regarding its effectiveness is in its infancy.

To date, only five published STP evaluations have been conducted in three countries. In London, England, Rowland et al. (2003) evaluated STP in 21 schools using a randomized control design. Parent-reported surveys ($n=1386$) found no AST increases following the STP intervention one year post-intervention. Similarly, in Auckland, New Zealand, Hinckson et al. (2011) found no change in AST one year following STP implementation among approximately 57,000 students from 56 elementary schools. However, their study, which measured AST using student self-report, showed a modest increase (3%) three years after STP implementation. The findings from these two STP evaluations are aligned with previous research suggesting that school-based interventions may take up to two to three years to see shifts in behavior (Harris et al., 2009).

In Canada, there have been three published studies regarding STP effectiveness. Green Communities Canada (GCC), a non-government organization advocating for sustainable transportation, has led the delivery of STP interventions across the nation. Between 2007 and 2009, STP was pilot tested by GCC in 12 schools across four provinces. Using data from these schools, Buliung et al. (2011) found a 2% increase (student-reported) in AST and a 13% reduction in driving (parent-reported) at one year follow-up. In 2009, the Canadian Partnership Against Cancer organization and Public Health Agency of Canada granted GCC a Coalitions Linking Action and Science for Prevention (CLASP; www.partnershipagainstcancer.ca) project to build upon the pilot study and deliver STP to over 100 schools across Canada. Two STP evaluations have stemmed from this national project. Using student-reported data, Mammen et al. (2013) found some evidence of localized success (1–23% AST increase) in nearly half of the 53 included schools, but overall, there was no change in AST one year following implementation. However, the authors noted that this national evaluation might be misrepresentative when considering that only 53 of the 106 participating schools had complete baseline and follow-up student reported data that were included in the analysis. To provide an additional indication of STP effectiveness on a national scale, Mammen and colleagues (2014) subsequently used follow-up parent-reported data available for all 106 schools. This study showed more promise, with a 17% mode shift from driving to AST one year following STP implementation.

All five STP evaluations (Buliung et al., 2011; Hinckson et al., 2011; Mammen et al., 2013, 2014; Rowland et al., 2003) had primary objectives in quantifying longitudinal changes in AST. Although quantitative changes in AST are of prime interest in any intervention designed to increase AST, it may be less than optimal to rely exclusively on a quantitative approach to evaluate STP efficacy. Instead, a qualitative approach can address study objectives that are difficult to explore through quantitative methods (Jones, 1995). For instance, within the context of STP, qualitative research can provide in-depth insight of the factors influencing effective implementation and the subsequent effect on AST change. Exploring the dynamics of the STP process can also shed light on reasons for AST variation shown in previous STP evaluations in Canada (Mammen et al., 2013, 2014). Though research has qualitatively examined facilitators and barriers to AST among practitioners, (Loitz and Spencer-Cavaliere, 2013), parents and students (Ahlport et al., 2008), minimal research has explored facilitators and barriers of specific interventions that may positively or negatively influence AST change. In support, Crawford and Garrard (2013) recently stated that although "implementing active transport to school initiatives and assessing their effectiveness in participating schools are important, it is also important to examine the program and contextual factors that shape the effectiveness of interventions (pg. 3)." This information can then lead to proposed modifications and recommendations to improve future STP practice.

The individuals that would perhaps have the most in-depth insight into the STP process are the STP facilitators who initiate, coordinate and support STP development and implementation. Accordingly, for this study we sought the perspectives of facilitators directly involved in STP implementation across Canada. The study objectives were to: i) explore the perceived success of STP interventions; ii) identify factors facilitating or hindering STP implementation; and iii) provide recommendations for improving STP practices in Canada.

2. Methods

2.1. The School Travel Planning process

Details on the STP process have been described previously by the co-authors (Buliung et al., 2011; Mammen et al., 2013, 2014). However, as a brief overview, the delivery of the STP process occurs over a series of four steps (Fig. 1). Led by a STP facilitator, step one involves school recruitment and the formation of school-level stakeholder committees. Step two involves the collection of baseline data including student and parent reported travel mode, family and school-level characteristics, and a committee led school-level walkabout. The information derived from the baseline measures and walkabout informs step three (action planning), whereby STP committees develop a

Download English Version:

<https://daneshyari.com/en/article/10506692>

Download Persian Version:

<https://daneshyari.com/article/10506692>

[Daneshyari.com](https://daneshyari.com)