Vol 7 , no 2 2015

Revue phénEPS / PHEnex Journal

Preparing School Health Facilitators: Building Competence and Confidence for a New Role

Kate E. Storey
University of Alberta

Genevieve Montemurro
University of Alberta

Marg Schwartz
APPLE Schools

Anna Farmer
University of Alberta

Paul J. Veugelers
University of Alberta

Dr. Kate E. Storey is an Assistant Professor in the School of Public Health at the University of Alberta. Her research program, entitled School-based Intervention Research through Changes in Lifestyles & Environments (SIRCLE), focuses on school- and community-based strategies to promote healthy weights and prevent chronic diseases.

Genevieve Montemurro is a Research Coordinator in the School of Public Health at the University of Alberta. Her current work focuses on knowledge translation and exchange related to the evaluation of school-based health programs and policies.

Marg Schwartz is the Director of the Alberta Project Promoting active Living and healthy Eating (APPLE) in Schools and specializes in the implementation of Comprehensive School Health.

Dr. Anna Farmer is Associate Professor of Community and Public Health Nutrition and Academic Program Director of the Dietetics Specialization in the Department of Agricultural, Food and Nutritional Science. Her current research focuses on promoting healthy food environments and building capacity in childcare centres.

Dr. Paul J. Veugelers is a Professor in the School of Public Health at the University of Alberta. He holds a Canada Research Chair in Population Health, an Alberta Research Chair in Nutrition and Disease Prevention, and an Alberta Innovates Health Scholar Award in recognition of his academic research program.

Abstract

Comprehensive school health (CSH) is an internationally recognized framework that provides opportunities for children and youth to develop health-enhancing behaviors while improving educational outcomes. However there is little information on how to effectively train individuals to implement CSH. The purpose of this research was to describe the development and evaluation of a training program designed to prepare facilitators to work collaboratively with school communities to implement CSH. Ten facilitators from a CSH program were purposefully sampled and invited to participate in a self-administered open-ended structured interview immediately after completion of the training program and again one year later. Analyses revealed that how the training was designed and implemented was equally as important as the content, and that building confidence was as important as building competence. The findings are relevant to those interested in preparing school health facilitators and health promotion practitioners for practice in the field.

Keywords: public health, child and adolescent health, comprehensive school health, professional preparation of school health personnel

Résumé

Formation de responsables de la santé en milieu scolaire : développer la confiance et la compétence dans un nouveau rôle

Résumé

L'approche globale de la santé en milieu scolaire (AGSS) est un cadre de référence international reconnu qui encourage les enfants et les jeunes à adopter des comportements favorables à la santé tout en améliorant leurs résultats scolaires. Par contre, il existe peu de renseignements sur la façon de former efficacement des personnes capables d'instaurer l'AGSS. Cette étude visait à décrire l'élaboration et l'évaluation d'un programme de formation conçu pour préparer les responsables à collaborer efficacement avec les collectivités scolaires en vue d'instaurer l'AGSS. Dix responsables d'un programme d'AGSS ont été choisis par échantillonnage intentionnel et invités à participer à une entrevue structurée non directive auto-administrée immédiatement après avoir terminé le programme de formation et une seconde fois un an plus tard. Les analyses ont révélé que la façon de concevoir et d'offrir la formation avait autant d'importance que le contenu et que le renforcement de la confiance en soi s'avérait aussi important que le développement des compétences. Ces résultats s'avèreront utiles aux personnes intéressées à former des responsables spécialisés en santé en milieu scolaire et en promotion de la santé sur le terrain.

Mots clés : santé publique, santé des enfants et des jeunes, approche globale de la santé en milieu scolaire, formation professionnelle du personnel responsable de la santé en milieu scolaire

Introduction and Background

School communities that implement a comprehensive school health (CSH) approach (Pan-Canadian Joint Consortium for School Health, 2008) help children and youth build knowledge of, and practice, health-enhancing behaviors (Lister-Sharp, Chapman, Stewart-Brown, & Sowden, 1999; Stewart-Brown, 2006) and improve educational outcomes (Chomitz et al., 2009; Murray, Low, Hollis, Cross, & Davis, 2007; Rosas, Case, & Tholstrup, 2009). In doing so, they provide a unique opportunity to influence students' current and future health to prevent chronic diseases in adulthood (Tones & Tilford, 2001; Veugelers & Fitzgerald, 2005). CSH has been defined by the pan-Canadian Joint Consortium for School Health (JCSH) and includes four interrelated pillars: teaching and learning, social and physical environment, partnerships and services, and healthy school policy (Pan-Canadian Joint Consortium for School Health, 2008). Implementation of CSH is most successful when it is of high intensity and long duration (Fung et al., 2012; Stewart-Brown, 2006) and when guided by designated, skilled, and adequately resourced personnel (Davis & Allensworth, 1994; Denman, 1999; Marx, 1998; Ottoson, Streib, Thomas, Rivera, & Stevenson, 2006; Winnail, Dorman, & Stevenson, 2004). Such personnel often include coordinator-type roles occupied by school administrators and teachers (Denman, Moon, Parsons, & Stears, 2002; Inchley, Muldoon, & Currie, 2007), health professionals (Card & Doyle, 2008; Grant, 2005) and outside volunteers (Austen, Fung, Cohen-Bearak, Wardle, & Cheung, 2006).

Health and school districts are increasingly exploring models based on dedicated staff and infrastructure to support CSH (Card & Doyle, 2008). While the need for designated coordinators, such as school health facilitators (SHF), is well documented, there is less clarity about how these personnel are most effectively trained to succeed in their roles. Existing literature provides some description of training in the area of school health (Card & Doyle, 2008; Centers for Diseases Control and Prevention, 2011; Winnail et al., 2004); however, more research is necessary to better understand and describe how we can prepare individuals to guide CSH implementation.

The purpose of this research was to describe the development and evaluation of a six-week training program designed to prepare SHFs to work directly and collaboratively with key stakeholders to promote healthy eating and active living (HEAL) within the Alberta Project Promoting active Living and healthy Eating in Schools (APPLE Schools). Based on data collected at the end of the six-week training program and one year later, we describe program elements identified by SHFs as most effective. These findings are relevant to those interested in preparing facilitators for practice in the field. This is timely given the current attention, despite the paucity of evidence, to identifying core competencies for school health promotion practice (e.g., assessment, planning, implementation, partnership building, communication, engagement) (Allegrante et al., 2009; Battel-Kirk, Barry, Taub, & Lysoby, 2009; Ghassemi, 2009; Shilton et al., 2008).

Methods

Setting

APPLE Schools was implemented in November 2007 with the goal of improving healthy eating and active living among students and increasing the health promotion capacity of the school community. The project began with ten schools, and has since expanded to 50 schools

throughout the province of Alberta, Canada. The primary intervention in the APPLE Schools project is the employment of trained SHFs in participating schools. The facilitators are expected to work collaboratively with stakeholders in the school community to build on existing health promoting activities and policies and to address unique needs and barriers to HEAL. The current research describes the experiences of the first ten APPLE SHFs after a six-week training program which occurred within the following sequence: (a) recruitment of SHF, (b) six-week training program, (c) school assignment, (d) first self-administered open-ended structured interview with SHFs, (e) start date in schools, (f) one year of implementation, (g) second self-administered open-ended structured interview with SHFs.

Participants

Participants included all APPLE Schools SHFs at the time of data collection. All SHFs (n=10) had a relevant undergraduate degree, experience working with children, and an understanding of the school setting. Collectively, they possessed diverse backgrounds in education, arts, nutrition, kinesiology, physical education, psychology, and management. All had been working at least one year in a school-health related field, and were between 20 and 40 years old. SHFs were predominantly female (eight of the ten). Ethical approval was obtained from the Health Research Ethics Board at the participating university. Participants were recruited directly by the research team and received an information letter regarding the study. All participants provided informed consent.

Training Program Development and Delivery

Efforts were made to locate a training program that would be suitable for whole-scale adoption, but a search of academic and grey literature failed to locate any existing programs. Therefore, the APPLE Schools Manager, with a team of experts, developed a six-week training program (seven hours/day) to provide training on the essential aspects of CSH as determined by organizations such as the World Health Organization, the International Union for Health Promotion and Education, and the Public Health Agency of Canada. The training program had two purposes: (a) to enhance the knowledge, skills and attitudes of facilitators to develop and implement a CSH intervention (APPLE Schools); and, (b) to build a learning community of facilitators.

Core content and design was based on a team of experts' extensive knowledge of school health and implementation processes for school communities. The team of experts included a manager with 30 years of experience in both the education field and in a governmental role as well as two experts in adult health education. As specific topic areas were identified, local experts provided additional content to the design, based on their expertise in specified areas (e.g., classroom management and the integration of health in the classroom). Resources from the National Staff Development Council (NSDC), now known as Learning Forward, were utilized based on principles of educational theory (Easton L.B., 2004; Killion, 2008) and incorporated social cognitive theory (Bandura, 2004) and principles of adult learning (Knowles, Holton, & Swanson, 2005; Merriam, Caffarella, & Baumgartner, 2007). This focus ensured that the curriculum was learner-centered, interactive, collaborative and engaging; and modeled the processes and skills expected of the SHF while also allowing for reflection and application of knowledge as recommended at the time by the NSDC, or Learning Forward (Easton L.B., 2004). Learning Forward is an international association of learning educators with a mission to "build the capacity of leaders to establish and sustain highly effective professional learning" (Learning Forward, 2015). The works of Hugh Phillips and Marcia Tate, experts in creating engaging adult learning strategies, were influential sources for both the manager and the coordinator assisting in

the design of the training program. As such, these adult learning strategies, such as the 20 professional learning strategies designed to engage the adult brain (Phillips, 2004;Tate, 2004), were incorporated into the training design (e.g., brainstorming, discussion, field trips, games, manipulate and model, peer coaching, role-playing, storytelling, visualization, writing, reflection). Learning strategies were purposefully and strategically designed to reach identified learning outcomes for each topic area learning segment (e.g., curriculum review, understanding CSH, policy development). SHFs were provided and received explanation on the full training agenda, including all processes used, so they could incorporate these processes into their upcoming role. Daily and weekly reflection time was provided so participants could assess whether particular processes worked more effectively for learning. See Table 1 for a description of training content areas, processes used, and examples. The training design was further validated and enhanced through expert feedback from government ministries (Alberta Education, Alberta Health), health authorities (Alberta Health Services), Ever Active Schools, and university professors. To determine specific learning needs and to ensure a collaborative and participatory approach, SHFs were also asked to identify the knowledge and skills they felt they required to succeed in the SHF role and to outline personal expertise they could share. This content was then incorporated to tailor the curriculum to the needs of the group. Because the APPLE Schools project specifically targets HEAL, special emphasis was placed on these areas along with development of 'people skills' such as facilitation, team building, and communication. To ensure a balance between expert-informed training design and the expertise of participants, participants were expected to actively reflect on and share how they planned to apply the knowledge they gained. As resources and experts were presented, all SHFs were challenged to add their own perspective by reflecting on the questions "how will you share your learning?" and "how can the information provided support your role as a SHF?" This practice was intended to help SHFs creatively keep track of their daily learning and visualize how they would apply new knowledge. This reflective approach was in alignment with other experiential learning strategies employed during training, and served to complement more structured, didactic components. Expert presenters were aware of this goal and were asked to provide interactive activities and avoid activities that incorporated only auditory learning strategies in their visit.

Data Collection

To evaluate the strengths and weaknesses of the training program, the ten original SHFs were purposefully selected and sampled (Mayan, 2009; Patton, 2002) and invited to complete, via written response, a set of open-ended questions self-administered through an anonymous structured interview immediately after completion of the six-week training program (January 2008) and again following one year of implementation (January 2009). Specifically, we sought to evaluate whether SHFs felt the training program (a) enhanced knowledge, skills and attitudes to develop and implement CSH; and (b) supported the development of a learning community of facilitators.

Open-ended structured interviews are well-established as an appropriate and practical qualitative data generating strategy that can be used when there is a clear focus and a well-developed understanding of the topic of interest (Kvale & Brinkmann, 2014; Robert Wood Johnson Foundation, 2008). Based on the research team's understanding of the topic and the specific focus on evaluating the training program, an open-ended structured interview was deemed appropriate. When utilizing open-ended structured interviews for qualitative research, considerations need to be made to ensure rigor, or trustworthiness in the data.

Table 1
Core Content Areas of Training, Strategies Used and Session Examples

Comprehensive School Health (CSH) Content Area (Pan-Canadian Joint Consortium for School Health, 2008)	Training Strategies Used	Session Examples
Social and Physical Environment	Interaction with provincial experts (e.g., practitioners within exemplary programs) Peer teaching Visualization Field Trips	Understanding the dynamics of school life (e.g., timetables, teacher demands, principal demands)
		Alberta examples of successful strategies for promoting Healthy Eating and Active Living (HEAL) in the school setting using a CSH approach
		Visits to exemplary programs to see practical ideas in action
		Essential elements of changing attitudes to create positive social environments (e.g., inclusion strategies)
		Essential elements of the physical environment focused on HEAL (e.g., necessary equipment, creating visual displays)
Teaching and Learning	Interaction with provincial experts (e.g., practitioners within exemplary programs) Modeling Role-playing Storytelling Games to learn resources Reflective discussions Peer teaching	Overview of Alberta Education programs of study for Health & Life Skills
		Review of approved resources for Health & Life Skills, and Physical Education
		Instruction on "people skills" (facilitation, adult learning, team building, communication) and teaching strategies

	Field Trips	Visits to exemplary programs to see practical ideas in action
Healthy School Policy	Modeling Critical review of current research studies and promising practices	History and implementation strategies of the Daily Physical Activity Policy
		Implementation strategies of the Alberta Nutrition Guidelines for Children and Youth
		Overview of tools for the assessment of school health and development of policy in schools
		Overview of prior research used to inform practice
Partnerships and Services	Interaction with community/provincial experts Relationship building	Instruction on the determinants of health, community development, and organizational and individual change
		Linkage to community supports and local resources for HEAL through guest speakers, facility visits, and attending a Community Supports & Services Fair

Note. The CSH content areas were initially based on the recommendations from the International Union for Health Promotion and Education, World Health Organization, Public Health Agency of Canada, and the provincial CSH program (Ever Active Schools, 2014). Ever Active Schools had focused these recommendations into four categories: Education, Environment, Everyone, and Evidence (Ever Active Schools, 2014). However, since the completion of the training program, the JCSH defined CSH within four pillars using different terminology, which was developed in 2008 (Pan-Canadian Joint Consortium for School Health, 2008). Therefore for the purpose of this manuscript, we have used the JCSH's description of the four pillars throughout as it meets the understanding of a wider audience beyond Alberta.

It is essential to include a well-developed interview schedule, or guide, in order to provide the interviewer (if interviewer-administered) or participant (if self-administered) clear instructions on the purpose of the interview as well as how to proceed through the interview (Denzin & Lincoln, 2011). As noted above, open-ended structured interviews can be conducted either by an interviewer or can be self-administered using a 'paper and pencil' approach, whereas participants provide responses in a written format (Robert Wood Johnson Foundation, 2008). Previous research has shown that self-administered interviews can elicit more novel and unanticipated responses to open-ended questions in comparison to face-to-face interviews (Erickson & Kaplan, 2000). For this reason, and in order to ensure anonymity of the responses, all data generation (both at six-weeks and one-year) occurred using a self-administered open-ended structured interview. Participants were provided with the interview guide and asked to provide written responses to each question. Immediately prior to data collection participants were notified that they could contact the research team either in person or by telephone to obtain clarification on interview questions at any point prior to submitting their anonymous written responses to the research team.

Questions at six-weeks included topics of: (a) perceived gains in knowledge, skills, and attitudes; (b) how instructional techniques enhanced (or did not) understanding of what is needed to implement and sustain CSH initiatives; (c) aspects of training that were most/least valued; and, (d) additional learning needs. Questions at one-year, included topics of: (a) how the training influenced (or did not influence) SHF confidence; (b) how activities helped (or did not help) build a sense of 'team'; (c) whether the training reduced stress associated with the new role; (d) usefulness of specific training content; and, (e) additional learning needs. While some questions were asked at both time points, each set of questions reflected the unique perspectives SHFs had immediately following the training program as well as after one-year of reflecting on their practice. Combined, these questions sought to evaluate how well the training program helped to prepare SHFs for their role, and to identify aspects of the program that were most effective.

To provide complementary information, research staff collected and analyzed key project-related documents using document analysis in order to provide important contextual information. These documents included: the curriculum schedule and training materials, APPLE Schools project materials (e.g., presentations, backgrounders, mission/vision, job descriptions), and school commitment letters which defined the expectations for the schools involved in the project.

Data Analysis

Data was analyzed using thematic analysis following the approaches outlined by Braun and Clarke (Braun & Clarke, 2006). Analysis involved an iterative process of examining facilitator responses and assigning meaning to their responses, looking for patterns of meaning in the data, then comparing emergent patterns of meaning with each other and the data as a whole. In alignment with objectives of the research, and the data generating technique employed, the following overarching evaluation questions were used to guide the analysis:

1. *What* training approaches and strategies did facilitators find most effective in preparing them for their role as SHFs?
2. *How* did the training approaches and strategies prepare facilitators for their role as SHFs?

Analysis of project-related documents was similarly conducted using a whole-document review in which each document was assessed specifically to examine the CSH content area included, as well as the purpose or objectives of the material (if appropriate) and integrated into the overall findings. This triangulation of data generating strategies helped to augment the

structured interview findings and enhanced trustworthiness in the findings (Mayan, 2009; Morse, Barrett, Mayan, Olson, & Spiers, 2002). Conversations with the APPLE Schools manager enriched the analyses through further elaboration of contextual and training program details. Over time, this process yielded several broad themes, which were continually refined (Miles & Huberman, 1994; Schwandt, 2007) and validated with the APPLE Schools manager and SHFs through member checking during APPLE Schools project team meetings to ensure rigor (Morse et al., 2002). Given the established relationship between the APPLE Schools project team and the research team, the research team regularly attended project team meetings and often presented preliminary findings. During these meetings, participants had an opportunity to provide feedback regarding the abstract concepts and broad themes that helped to clarify and refine the results. Additional strategies, including investigator responsiveness (adaptive, sensitive and reflexive), and data saturation also ensured rigor or trustworthiness in the data (Morse et al., 2002).

Results

All ten SHFs responded at length at both time points, producing approximately 85 total pages of single-spaced qualitative data. Data analysis generated two prominent themes; one related to building facilitator competence, and the other related to building confidence. The first theme 'building competence through knowledge and skill development' included two sub-themes: (a) building knowledge and skills to fill gaps, and (b) instructional approaches that enhanced learning. The second theme 'building confidence' included three sub-themes: (a) building confidence in the project through inspiration, (b) building confidence through linkage to external supports and resources, and (c) building self-confidence by building a strong team. What emerged most powerfully is that *how* the training program was designed and implemented was equally as important as the content delivered for building both competence and confidence. In addition, facilitators provided valuable feedback for strengthening the training program, which constitutes a third finding: recommended modifications.

Building Competence through Knowledge and Skill Development

All facilitators stated the training had strengthened knowledge and essential skills for their work in the schools and identified specific training approaches they found most effective to this end. These are described in detail below within two sub-themes: (a) building knowledge and skills to fill gaps, and (b) instructional approaches that enhanced learning.

Building knowledge and skills to fill gaps. As a whole, facilitators reported strengthened knowledge in all of the content areas (i.e., CSH) of the training program, but especially regarding understanding of the APPLE Schools project, child nutrition and physical activity, health and physical education curricula, and knowledge about each participating school. They reported strengthened skills in: facilitation and leading group activities (e.g., group decision making, goal setting, developing a vision/mission, ways to engage others, and planning and organizing meetings/events); teamwork and collaboration; teaching strategies (e.g., how to make learning fun for students); and developing school policies.

Instructional approaches that enhanced learning. Facilitators provided feedback regarding instructional approaches they found most helpful for building skills and knowledge, including: experiential learning strategies (e.g., designing and facilitating school meetings), and the trainer's modeling of various instructional techniques (e.g., visualization, role-playing, storytelling). These approaches expanded their repertoire of facilitation and teaching techniques

and were instrumental for skill development. All facilitators found interactive presentations of success stories and promising practices by people working in the field to be highly informative, engaging and inspiring (see "Building Confidence" below). These stories provided a clear picture of *how* others have successfully implemented various strategies. Visits to an exemplary school where facilitators could observe a teacher in action were highly valued. One facilitator remarked, "Seeing practical examples in action was essential to prepare me for the work." Another commented, "I loved the field trips…it was fascinating to watch the classroom management skills that [the teacher] had." Several facilitators also valued the time built-in for critical reflection.

Building Confidence

The second key theme was how the training program built facilitator self-confidence, and confidence in project. Given that this was a new and relatively unstructured role, it was difficult for facilitators to envision exactly what they would be doing in the schools each day, and this generated significant anxiety. One facilitator, for example, referred to entry into the schools as "the dreaded unknown"; another commented, "This work is so unique and specific to each community, it is impossible to alleviate stress relating to this job"; and another noted, "Many of us had no idea what a 'typical day' would look like." Three approaches were identified that helped build facilitator self-confidence and confidence in the project as a whole, described as sub-themes below: (a) building confidence in the project through inspiration, (b) building confidence through linkage to external supports and resources, and (c) building self-confidence by building a strong team.

Building confidence in the project through inspiration. On the first day of training, project leaders (i.e., the Interim Dean of the School of Public Health and the Principal Investigator) provided an overview of the project that demonstrated how the project fit into the bigger schemes of childhood obesity, chronic disease prevention, and CSH. These opening sessions generated a sense of excitement and connection to something 'bigger' and were noted as inspirational by almost all SHFs. One facilitator noted this made him feel like he was part of a much larger movement, which generated confidence and investment in the project. This ethos continued over the course of the training, being reinforced by outside experts and people doing similar work.

Building confidence through linkage to external supports and resources. Facilitators' confidence grew when they realized how many resources were available to them. Given the facilitators diverse educational backgrounds, they viewed access to external resources as essential, including individuals and materials. While the facilitators gained a breadth of knowledge in a number of content areas throughout their training, they appreciated having access to experts outside of the APPLE School's project in order to provide additional depth of knowledge. As one facilitator indicated: **"**…It was nice to find out we are not alone out there; these professionals are willing to support us."

Building self-confidence by building a strong team. Almost all facilitators indicated the most valuable aspect of the training was the opportunity to develop as a strong, cohesive team. The relational approach of the training program emphasized development of mutually respectful, trusting, and caring relationships among team members. This resulted in an internal support network in which, team members felt, as one facilitator noted, "…we've got each others' backs and will selflessly help each other out." At earlier stages, team building buoyed facilitator confidence through the identification of individual strengths and skills. This helped facilitators to see where they and others fit in the team structure. One facilitator reported that the team building

gave her an idea of whom she can contact for support, ideas, help, and suggestions, and that the end result was "extremely" positive and uplifting. She also noted that the process generated a great deal of self-understanding. "I now have a clear view of me…This enlightenment has enabled me to identify and confidently carry my strengths, virtues, and attributes."

Facilitators were asked to reflect on aspects of the training program that were most effective in team building. Our analyses revealed the following were fundamental to building confidence:

1. General Team Building Activities: Positive relationships among team members were developed explicitly through a variety of team-building exercises such as 'getting to know you' at the beginning of the training, which helped establish level of comfort that subsequently enabled important discussions.
2. Challenging Group Assignments: Group assignments such as creating a vision and naming the project appeared instrumental in creating a deeper awareness of, and respect for, individual differences and talents. As one facilitator noted: "It was good to do [group] exercises…because it allowed me to see how everyone brought their own twists and ideas."
3. Spending Time Together: Working closely together over a six-week period fostered development of strong bonds among team members and built confidence in being able to address challenges together. Time spent together included not only instructional time, but also informal time (e.g., preparing and sharing meals).
4. Participatory Processes: Participatory processes generated a sense of empowerment, ownership of, and commitment to, the project. Facilitators noted this was instrumental in making them feel valued and equal. As one facilitator indicated, for example: "…I really feel like I am on a two-way street with all of the parties involved in this project…I feel included and equal."

In addition, the attention to building a strong team created a safe space for voicing fears and discussing challenging topics, which significantly enriched the learning experience.

Facilitator Recommendations for Modifications

There was general consensus that facilitators suffered from information overload and needed time in the schools to process the information. As stated by one SHF: "A lot of the information would have made more sense and been easier to process if it had been presented after I had been working in the school for a while, and spread out more." Facilitators made recommendations for modifying the training program in three key areas: (a) Avoid information overload and reduce overloaded days of instruction to allow for sufficient time to absorb content; (b) provide early entry and engagement with schools prior to training to build greater self-confidence and tailor learning needs; and (c) place a stronger emphasis on principles of health promotion and community engagement.

Discussion

APPLE Schools has been shown to be effective at improving HEAL (Fung et al., 2012), which parallels the positive experience of the training process. This study illuminates several important aspects of training that foster facilitator competence and confidence in CSH. First, the employment of diverse teaching/learning strategies appears instrumental in building facilitator competence and is supported by adult learning theory (Lawson, 2006; Phillips, 2004; Tate, 2004). This is consistent with the prior literature on the principles of adult education, situated

learning, and how adults learn within the social context (Jarvis, 2012; Lave & Wenger, 1991). Person-to-person information sharing, role-playing, and seeing practical ideas in action both in class and through field-trips helped develop a concrete sense of 'knowing how' in addition to more basic 'knowing what.' Through the use of these strategies, facilitators were able to co-create knowledge and reflect upon information as it was being acquired. These strategies, which sought to balance expert information with diverse group knowledge, created a unique training environment where participants were encouraged to reflect on and share their skills and experiences in relation to new concepts. Because the facilitators were expected to build school capacity for promoting HEAL, it was crucial that they had: (a) a solid understanding of the educational curricula and *how* to integrate HEAL into these, (b) a 'toolbox' of effective strategies to promote HEAL, (c) knowledge of available resources and how to access them, and, (d) an understanding of how their own skills and experience could be applied in their new role. This knowledge not only fostered competence, but also confidence in their ability to succeed in the role.

While training program content and delivery served to increase SHF knowledge and confidence to implement CSH in their schools, it is important to note that many SHFs felt that the volume of information was overwhelming, especially in the absence of early entry into schools. SHFs suggested that additional time to absorb and apply the information in the school setting would improve the training program. These findings are consistent with experiential learning theory (Kolb, 2000), which emphasizes the importance of concrete experiences and abstract conceptualization in the learning process, as well as the transformation of information through reflective observation and the active testing of new concepts. While training components did include experiential learning strategies (e.g., concrete application of facilitation and teaching techniques, reflection on how new knowledge could be applied), concurrent delivery of the training program and entry of SHFs in the school setting would likely have enhanced SHF application and elaboration of training content.

Text-based accounts of promising practices or research oriented papers tended to receive a lower priority when the planned training agenda timeline was constrained. We speculate that the more dynamic interaction with people actually doing similar work 'on the ground' was more illustrative and inspiring while also offering immediate opportunity to ask questions that would help discern suitability of various practices for local implementation. Although all practices presented and supported during the training were evidenced-based, more creative ways of bringing text-based information to life was necessary to stimulate and motivate participants to learn from this media. This is consistent with prior studies that indicate the importance of balancing practical and theoretical learnings (Easton L.B., 2004) as well as the need for creative teaching strategies that promote information retention and learner motivation (Tate, 2004).

Building confidence is essential for several reasons and is supported by Bandura's work on self-efficacy (Bandura, 2004). First, the full-time SHF role was 'new ground' but carried high expectations of success, creating significant anxiety. Second, the relatively unstructured nature of the facilitator role was another source of anxiety. High levels of anxiety are detrimental to health and are also likely to influence facilitator effectiveness in the field. Third, high levels of self-efficacy and confidence have been linked to more effective delivery of health curricula (Sy & Glanz, 2008). It seems likely that the importance of confidence translates more broadly to effectiveness of the SHF role. In short, we propose that confident facilitators are more likely to be effective in the school setting.

Facilitator confidence in the project was nurtured through situating the project in the 'bigger picture,' which demonstrated its meaning and importance. Reinforcement by outside experts helped to build the SHFs' confidence in the project through inspiration, and provided a sense of excitement and connection to something 'bigger' that was both worthy and doable. While the connection to outside experts was valuable, facilitator self-confidence was truly nurtured through knowledge and skill development (competence), and importantly, through creation of a strong, cohesive team, which became a potent source of moral and material support. Such an environment helps members feel safe enough to express fears and concerns, ask challenging questions, and step away from strongly held positions to consider different views shifting them from "combat to cooperation" (Gergen, 2009). As well, knowing that numerous supports and resources were available and accessible both within and outside the team, and knowing that others had succeeded in similar ventures further promoted self-confidence.

Limitations

It should be noted that because of a short start-up period, facilitators did not know which schools they would be working with until near the end of their training. Although this could not be prevented due to the realities of time limitations, we recognize that early entry into the school communities would have enhanced all aspects of the training. The SHFs were highly educated and motivated and may have been apt as learners, which could be a limitation for the implications of this work. However due to the SHFs motivation, a strength of the study was the SHFs willingness to participate at both data generation time points, as well as their engagement throughout the final stages of analysis, which added richness to the findings and helped to ensure rigor or trustworthiness in the data. While the use of the self-administered structured interview was in alignment with the objectives of the research, self-administered instruments are not without limitations. Given that the interviews were not conducted with a trained interviewer, it is difficult to determine if responses were in fact more novel compared in comparison to a face-to-face interview. As well, because this study was qualitative in nature, findings may not be generalizable to the whole population. However, despite diverse backgrounds and age ranges, as well as varying implementation contexts, findings were consistent across SHFs and therefore enhance the transferability of these findings.

Conclusions

Our findings point to the importance of careful attention to *how* SHF training programs are designed and implemented, and that building confidence is as important as building competence. This is particularly important when roles are new and when there is no pre-determined 'recipe' for action, but rather a broad set of principles and guidelines that can be variously applied to suit the local context. While CSH as an approach has become increasingly well established in the past twenty years, there are not yet undergraduate programs designed specifically to train practitioners on how to implement CSH. Future research that examines relationships between various training strategies and facilitator effectiveness, as well as relationships between self-confidence, confidence in the project and facilitator effectiveness is needed.

Recommendations

Implications for School Health Practice

While the APPLE Schools project emphasizes HEAL, this training model could easily be modified for broader application. For example, the content could be modified to include other aspects of student health, such as mental, social, and emotional well-being. Based on our evaluation findings, and pending further inquiry, the design and delivery of SHF training benefits from the inclusion of the following eight components:

1. A comprehensive overview of the 'big picture' of the project, and ongoing endorsement of the value and importance of the work.
2. Education on CSH, health promotion, and community development principles and processes (and modeling of these principles and processes).
3. Practical strategies relevant to project goals (e.g., strategies to promote HEAL), with concrete linkages to local resources, and/or creating an external support network. Review of relevant educational curricula with discussion of how CSH activities can be integrated into the classroom and school community.
4. Teaching and modeling of group facilitation skills, adult and child learning principles.
5. Continual attention to building positive relationships and creating a safe space for learning and an internal support network of a close-knit team working on common goals.
6. Early introduction of facilitators into the school setting.
7. Interactive learning through contact and conversation with others doing similar work, with opportunities to observe practical ideas in action.
8. Preliminary training prior to entry into the schools followed by ongoing facilitator-driven professional development to meet emerging learning needs and expand SHF skills and knowledge.

Acknowledgements

This work was supported by a private donation to the School of Public Health, University of Alberta. The authors thank the SHFs for their participation in the present study, and all students, parents, teachers, schools and school jurisdictions for their participation in APPLE Schools. We would also like to thank the individuals who provided their time and expertise during the 6-week training program.

References

Allegrante, J. P., Barry, M. M., Airhihenbuwa, C. O., Auld, M. E., Collins, J. L., Lamarre, M. C., . . . Mittelmark, M. B. (2009). Domains of core competency, standards, and quality assurance for building global capacity in health promotion: The galway consensus conference statement. *Health Education & Behavior, 36*(3), 476-482. DOI:10.1177/1090198109333950

Austen, S. B., Fung, T., Cohen-Bearak, A., Wardle, K., & Cheung, L. W. Y. (2006). *Facilitating change in school health: A qualitative study of schools' experiences using the School Health Index*. Centers for Disease Control and Prevention. Retrieved March 2, 2015, from http://www.cdc.gov/pcd/issues/2006/apr/05_0116.htm.

Bandura, A. (2004). Health promotion by social cognitive means. *Health Education & Behavior, 31*(2), 143-164. DOI: 10.1177/1090198104263660

Battel-Kirk, B., Barry, M. M., Taub, A., & Lysoby, L. (2009). A review of the international literature on health promotion competencies: Identifying frameworks and core competencies. *Global Health Promotion, 16*(2), 12-20. DOI: 10.1177/1757975909104100

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101.

Card, A., & Doyle, E. (2008). School health coordinators as change agents. *Health and Learning, 7*, 3-11.

Centers for Diseases Control and Prevention. (2011). Fostering school connectedness: Staff development program. Retrieved March 2, 2015, from http://www.cdc.gov/healthyyouth/protective/pdf/connectedness_facilitator_guide.pdf

Chomitz, V. R., Slining, M. M., McGowan, R. J., Mitchell, S. E., Dawson, G. F., & Hacker, K. A. (2009). Is there a relationship between physical fitness and academic achievement? Positive results from public school children in the northeastern United States. *Journal of School Health, 79*(1), 30-37. DOI: JOSH371 [pii] 10.1111/j.1746-1561.2008.00371.x

Davis, T. M., & Allensworth, D. D., Wyche, J., Lawson, E., Nicholson, L. (1994). Program management: A necessary component for the Comprehensive School Health Program. *Journal of School Health, 64*(10), 400-404.

Denman, S. (1999). Health promoting schools in England - a way forward in development. *Journal of Public Health Medicine, 21*(2), 215-220.

Denman, S., Moon, A., Parsons, C., & Stears, D. (2002). *The health promoting school: Policy, research and practice*. London/New York: Routledge.

Denzin, N.K., & Lincoln, Y.S. (2011). *The SAGE handbook of qualitative research.* Thousand Oaks, CA: Sage.

Easton L.B.. (2004). *Powerful designs for professional learning*. Oxford, OH: National Staff Development Council.

Erickson, P. I., & Kaplan, C. P. (2000). Maximizing qualitative responses about smoking in structured interviews. *Qualitative Health Research, 10*(6), 829-840.

Ever Active Schools. (2014). Retrieved March 2, 2015, from http://www.everactive.org/

Fung, C., Kuhle, S., Lu., C., Purcell, M., Schwartz, M., Storey, K., & Veugelers, P.J. (2012). From "best practice" to "next practice": The effectiveness of school-based health promotion in improving healthy eating and physical activity and preventing childhood obesity. *International Journal of Behavioral Nutrition and Physical Activity, 9*(1), 27. DOI: 1479-5868-9-27 [pii] 10.1186/1479-5868-9-27

Gergen, K. (2011). *An invitation to social construction* (2nd ed.). Thousand Oaks, CA: Sage.

Ghassemi, M. (2009). Development of pan-Canadian discipline-specific competencies for health promoters. Summary report consulation results. Retrieved March 2, 2015, from http://www.phabc.org/modules/Contentccomp/files/Development of Pan-Canadian Discipline-Specific Competencies for Health Promoters.pdf

Grant, S. (2005). Tipu Ka Rea/to grow expand and multiple: An operational model for developing sustainable health-promoting schools in Aotearoa New Zealand. *Education & Health, 23*(3), 44-46.

Inchley, J., Muldoon, J., & Currie, C. (2007). Becoming a health promoting school: Evaluating the process of effective implementation in Scotland. *Health Promotion International, 22*(1), 65-71. DOI: 10.1093/heapro/dal059

Jarvis, P. (2012). *Adult learning in the social context* (2nd ed.). New York, NY: Routledge.

Killion, J. (2008). *Assessing impact: Evaluating staff development*. Thousand Oaks, CA: Sage.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development* (Vol. 1). Englewood Cliffs, NJ: Prentice-Hall.

Knowles, M. S., Holton, E. F., & Swanson, R. A. (2005). *The adult learner: The definitive classic in adult education and human resource development* (6th ed.). New York, NY: Routledge.

Kvale, S., & Brinkmann, S. (2014). *InterViews: Learning the craft of qualitative research interviewing* (3rd ed.). Thousand Oaks, CA: Sage.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation.* Cambridge, UK: Cambridge University Press.

Lawson, K. (2006). *The trainer's handbook* (2nd ed.). San Francisco, CA: Pfeiffer.

Learning Forward. (2015). Retrieved May 19, 2015, from http://learningforward.org.

Lister-Sharp, D., Chapman, S., Stewart-Brown, S., & Sowden, A. (1999). Health promoting schools and health promotion in schools: Two systematic reviews. *Health Technology Assessment, 3*(22), 1-207.

Marx, E., Wooley, S.F., Northrop, D. (1998). *Health is academic: A guide to coordinated school health programs*. New York: Teachers College Press.

Mayan, M. J. (2009). *Essentials of qualitative inquiry*. Walnut Creek, CA: Left Coast Press.

Merriam, S. B., Caffarella, R. S., & Baumgartner, L. M. (2007). *Learning in adulthood: A comprehensive guide*. San Francisco, CA: Jossey-Bass.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis* (2nd ed.). Thousand Oaks, CA: Sage.

Morse, J. M., Barrett, M., Mayan, M., Olson, K., & Spiers, J. (2002). Verification strategies for establishing reliability and validity in qualitative methods. *International Journal of Qualitative Methods, 1*(2), 1-19.

Murray, N. G., Low, B. J., Hollis, C., Cross, A. W., & Davis, S. M. (2007). Coordinated school health programs and academic achievement: A systematic review of the literature. *Journal of School Health, 77*(9), 589-600. DOI: 10.1111/j.1746-1561.2007.00238.x

Ottoson, J. M., Streib, G., Thomas, J. C., Rivera, M., & Stevenson, B. (2006). Evaluation of the National School Health Coordinator Leadership Institute. *Journal of School Health, 74*(5), 170-176.

Pan-Canadian Joint Consortium for School Health. (2008). What is Comprehensive School Health? Retrieved March 2, 2015, from http://www.jcsh-cces.ca/index.php/about/comprehensive-school-health

Patton, M. Q. (2002). *Qualitative research and evalution methods* (3rd ed.). Thousand Oaks, CA: Sage.

Phillips, H. (2004). *How to design and deliver dynamic workshops.* Edmonton, AB: HP TrainingWorks, Inc.

Robert Wood Johnson Foundation. (2008). *Using qualitative methods in healthcare research.* Retrieved March 2, 2015, from http://www.qualres.org/index.html

Rosas, S., Case, J., & Tholstrup, L. (2009). A retrospective examination of the relationship between implementation quality of the coordinated school health program model and school-level academic indicators over time. *Journal of School Health, 79*(3), 108-115. DOI: 10.1111/j.1746-1561.2008.00394.x

Schwandt, T. (2007). *Dictionary of qualitative inquiry* (3rd ed.). Thousand Oaks, CA: Sage.

Shilton, T., Howat, P., James, R., Burke, L., Hutchins, C., & Woodman, R. (2008). Health promotion competencies for Australia 2001-5: Trends and their implications. *Promotion & Education, 15*(2), 21-26. DOI: 10.1177/1025382308090341

Stewart-Brown, S. (2006). What is the evidence on school health promotion in improving health or preventing disease and specifically, what is the effectiveness of the health promoting schools approach? Retrieved March 2, 2015, from http://www.euro.who.int/__data/assets/pdf_file/0007/74653/E88185.pdf

Sy, A., & Glanz, K. (2008). Factors influencing teachers' implementation of an innovative tobacco prevention curriculum for multiethnic youth: Project SPLASH. *Journal of School Health, 78*(5), 264-273. DOI: 10.1111/j.1746-1561.2008.00299.x

Tate, M. (2004). *"Sit & get" won't grow dendrites: 20 professional learning strategies that engage the adult brain.* Thousand Oaks, CA: Corwin Press.

Tones, K., & Tilford, S. (2001). *Health promotion: Effectiveness, efficiency and equity* (3rd ed.). Cheltenham, UK: Nelson Thornes.

Veugelers, P. J., & Fitzgerald, A. L. (2005). Effectiveness of school programs in preventing childhood obesity: A multilevel comparison. *American Journal of Public Health, 95*(3), 432-435.

Winnail, S., Dorman, S., & Stevenson, B. (2004). Training leaders for school health programs: The National School Health Coordinator Leadership Institute. *Journal of School Health, 74*(3), 79-84.