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The Best of *At My Best K-3*: A Student- and Teacher-informed Evaluation of an Elementary Health Education Resource

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Abstract

At My Best K-3 is a curriculum-aligned resource intended for elementary health teachers. Developed by Physical and Health Education Canada, *At My Best K-3* aims to help students develop emotional awareness while seeing connections between healthy eating, physical activity, and emotional well-being. Using drawing-telling (a novel participatory action research method) and qualitative interviews, this study explored student (n = 31) and teacher (n = 4) experiences and perceptions of the *At My Best K-3* resource across three Canadian provinces. Students' drawings of learnings from the program reflected aspects of healthy eating, physical activity, and emotional well-being related to personal happiness. Teachers reported positive observations, particularly as they relate to student engagement, materials, and impact. Based on the evaluation of *At My Best K-3*, we offer recommendations for inclusivity, cultural relevance, and holistic health within health education programming. Overall, *At My Best K-3* supports teachers in the delivery of quality health education.

Keywords: health education; healthy eating; physical activity; emotional well-being.

Résumé

La ressource pédagogique *À mon meilleur* (*At My Best K-3*) à l'intention des enseignants du primaire est basée sur le programme officiel d'éducation physique et de la santé. Élaborée par EPS Canada, cette ressource vise à aider les enfants à développer leur conscience émotionnelle et leur connaissance des liens entre l'alimentation saine, l'activité physique et le bien-être émotionnel. L'étude présentée ici explore, à l'aide d'entrevue et de dessins explicités (une méthode novatrice de recherche action participative), les expériences et la perception d'enseignants (n=4) et d'enfants (n=31) de trois provinces canadiennes par rapport à la ressource *À mon meilleur*. Les dessins des enfants reflètent des apprentissages en regard des aspects de la saine alimentation, de l'activité physique et du bien-être émotionnel en lien avec leur bonheur personnel. Les enseignants rapportent des observations positives, particulièrement sur l'engagement des élèves, le matériel et l'influence du programme. Au regard des ces résultats, nous offrons des recommandations sur l'inclusivité, la pertinence culturelle et la santé holistique dans les programmes d'éducation à la santé. En somme, *À mon meilleur* appuie les enseignants dans la mise en œuvre d'une éducation à la santé de qualité.

Mots clés : éducation à la santé; saine alimentation; activité physique; bien-être émotionnel.

Introduction

In most Canadian elementary schools, health education is taught almost exclusively by generalist teachers who often have little-to-no pre-service university coursework and/or subsequent in-service training related to health (Cohen et al., 2011; Vamos & Zhou, 2007; Veugelers & Schwartz, 2010). This, despite the efforts of provincial/territorial physical and health education organizations. Not surprisingly, the consequences of such a scenario are undesirable and disconcerting. They include, for example, elementary teachers feeling less knowledgeable about, and less skilled delivering, quality health education (Vamos & Zhou, 2007). Moreover, and more specifically, elementary teachers might also feel uncomfortable delivering some components of health education curricula and/or ill-prepared to respond to students who ask about and/or disclose personal health information (Lavin et al., 1992; Myers-Clack & Christopher, 2001). As a result, elementary teachers might teach *some* health education outcomes while also excluding others (Lavin et al., 1992; Myers-Clack & Christopher, 2001).

Related to these consequences is the oft-cited observation that many elementary teachers also lack health-related materials and resources; they also are rarely afforded the necessary time to search for suitable resources and/or compile lessons (Perera et al., 2015; Perikkou et al., 2015; Thackeray et al., 2002). Presumably partly in response to these observations, a number of governmental organizations within Canada have created health education resources in recent years. For example, the Government of Canada (2020) has created a number of teacher resources related to health education-related topics, including the following: alcohol, smoking, and drugs; mental health; and sexual health promotion. Likewise, provincial/territorial and municipal governments have created similar resources for their regions' elementary teachers. For example, the Public Health Nutritionists of Saskatchewan (2019) has created nutrition-related teaching resources and Ottawa Public Health (2020) has created lesson plans focusing on a host of health topics including injury prevention, healthy eating, and internet safety. Lastly, a number of non-governmental and not-for-profit organizations in Canada have produced comparable resources for elementary teachers. These include Opeha's (2020) general health education resources, the British Columbia Dairy Association's (2020) nutrition education resources, and the Canadian Mental Health Association's (2001) mental health resources, among others.

Notwithstanding the potential value to be found in a number of these resources—particularly given the clear need for them—there are so many to be found that making an informed choice about their adoption is a difficult task for already-busy elementary teachers. Perhaps more concerning is the observation that few-if-any of these resources also offer elementary teachers any data detailing their proven ability to positively influence students' knowledge, skills, and attitudes related to curriculum outcomes in health education. Consequently, elementary teachers are functionally forced to invest considerable time trying to determine or find this information on their own, adopt some resources over others with minimal documentary evidence related to their efficacy, or avoid using any of them altogether.

Given this context and scenario, we recently researched the implementation of one of Physical and Health Education Canada's (PHE Canada) hallmark health education-related resources: *At My Best K-3*. Given PHE Canada's longstanding reputation as the nation's leader in physical and health education—as well as its interprovincial/territorial network of teachers and partnering teachers' organizations—it is our belief that their resources have considerable potential

to reach the hands of Canadian specialist and generalist elementary teachers. Certainly, this is the case with *At My Best K–3* (Robinson et al., 2017).

***At My Best K–3*, Elaborated**

At My Best K–3, most simply, is a free (no monetary cost) curriculum-aligned resource “designed to support children’s optimal development by inspiring and motivating them to make healthier choices and develop lifelong healthy habits” (PHE Canada, 2020, para. 2). *At My Best K–3*’s program goals include helping students develop emotional awareness while also seeing the connections between healthy eating, physical activity, and emotional well-being. *At My Best K–3* is a program meant for elementary teachers (and students) that was developed by PHE Canada with funding and collaboration from founding partner (and pharmaceutical company) AstraZeneca Canada and supporting partner (and dairy processing company) Saputo (PHE Canada, 2020).

PHE Canada’s position as to *At My Best K–3* reaching its goal of inspiring and motivating children to make healthier choices and develop lifelong healthy habits can be found when students recognize the benefits (i.e., emotional, physical) associated with enhancing their personal health and supporting others. The *At My Best K–3* teacher resource includes printed task cards, a letter to parents/guardians, 10 learning experiences (lesson plans) per grade level with integrated activity sheets, curriculum links, music, videos, opportunities to extend the learning at school and at home, a book titled *On My Way: A Journey of a Star Named Rae*, and a Play Day toolkit.

Review of Related Literature

Teachers and health professionals have long recognized the interconnection between health and learning (Basch, 2011; Birch & Auld, 2019; Clement, 2010; Kolbe, 2019; La Salle & Sanetii, 2016). School-aged children who are holistically well—physically, mentally, socially, and emotionally—have a greater capacity to achieve their full potential as learners, and as productive members of society (Birch & Auld, 2019; Clement, 2010; Lewallen et al., 2015; Slade & Griffith, 2013). Growing evidence also recognizes the significant effect of healthy behaviours on cognitive and academic outcomes. For example, researchers have reported the positive effect of physical activity on constructs related to academic achievement (Carlson et al., 2008; Howie & Pate, 2012; Rasberry et al. 2011). Furthermore, school nutrition programs have shown to be associated with improved school performance—specifically, students’ desire to learn as well as their level of engagement (Florence et al., 2008; Forrest et al., 2013). Although these health behaviours are often thought of in isolation, a recognition of the interrelatedness of the various components of health (e.g., physical, mental, social) is essential to achieve holistic, balanced well-being (Hoare et al., 2016). These elements exist in a dynamic state in which one often influences the state of another (Andermo et al., 2020; Butler, 2001; Hoare et al., 2016). Given this understanding, strengthening children’s well-being by targeting the multiple components of health may be a strategy that positively impacts the current and future health of children whilst also improving engagement and success in school.

School communities are a critical environment to promote children’s health given the amount of time they spend at schools. As well, schools are equipped with the facilities, programs, and necessary personnel to impact health behaviours (Naylor & McKay, 2009; St. Leger et al., 2007). Health promotion initiatives in school settings have been shown to be effective in addressing student well-being, especially when they are comprehensive and multifaceted (Fung et

al., 2012; Lister-Sharp et al., 1999; Veugelers & Swartz, 2010). Whole-school approaches, in which multicomponent strategies are utilized (e.g., curriculum, school policy, school environment), are important in establishing healthy lifestyles (Kriemler et al., 2011; Pardo et al., 2013). Quality health education is recognized as an important contributor to whole-school approaches and school-based health promotion initiatives (Veugelers & Schwartz, 2010). Health education in school classrooms can be effective in improving, educating, and maintaining students' health but also as a strategy for supporting students for academic success (Birch et al., 2019). Canadian health education curricula (e.g., Alberta Education's [2001] *Health and Life Skills*) provide students an opportunity to acquire knowledge, attitudes, and skills needed to adopt and maintain healthy behaviours.

Despite the potential of health education, the subject area faces several challenges due to the often-narrow focus of school priority (literacy and numeracy) and devoted curricula time to other courses (Videto & Joseph, 2019). As such, many schools fail to offer school health education programs with sufficient quantity or quality (Videto & Joseph, 2019). To help combat this issue, several school-based health education resources have been developed to support Canadian teachers. However, few have been subject to study. Evaluations of school-based programming enables teachers to identify and use better quality practices more effectively to improve student learning outcomes. There is a great need for, and value in, evaluating resources in 'real-world' practice in order to investigate effectiveness and feasibility of a program.

The purpose of this study was to evaluate the *At My Best K-3* health education resource. Specifically, the aim of this research was to gain insights into the experiences of students and teachers in schools in which the program was implemented so as to gain an understanding of, among other things, the impact of the program on student learning. By gaining insights into the process, experiences, and perceptions of the students and teachers involved in the program, we can better understand the program's effectiveness from the views of some of the most key stakeholders.

Research Methods

Our study included students and teachers across three provinces, all of whom had voluntarily accessed the *At My Best K-3* program. The study design included two main methods, both qualitative in nature. The first was drawing-telling (Einarsdottir et al., 2009) with elementary students and the second was teacher interviews. Further details are presented below.

Procedures and Participants

Members of a four-researcher team initially contacted school administrators in three provinces via email and/or phone to provide initial research project information. Once completed, researchers contacted each potential elementary teacher in order to ensure they were well acquainted with the project objectives, timelines, and participation requirements for the study. In an effort to encourage and track fidelity, a checklist that outlined all lessons was provided for teachers to ensure each lesson was taught (if possible). As well, teacher and parent/guardian consent and student assent forms were administered (emailed) to each teacher. Each researcher then conducted an initial site visit and spent time with each class explaining what the *At My Best K-3* program was. Additionally, an online *At My Best K-3* training webinar was also offered to participating elementary teachers. At this time, all consent and assent forms were collected, scanned, and sent to one of the researchers. Upon teachers' completion of the implementation of

the *At My Best K–3* program, a member of the research team visited each school and conducted a drawing-telling session with the students. While all students participated in the drawing exercise, only a selected sample of student participants partook in the subsequent telling exercise. Lastly, a researcher also conducted an interview with each of the participating teachers. Although the exact timeframe from start to finish varied for each research site, the average was four months. All research protocols were approved by the four researchers' universities' research ethics boards, as well as by the participating school divisions.

The participants were a sample of elementary students (and their teachers) from six rural schools in three provinces (two schools in each of British Columbia, Alberta, and Nova Scotia). These students were enrolled in six different classes (kindergarten = 2; grade 1 = 2; grade 2 = 2). From these six classes, 31 students (kindergarten students = 8; grade 1 students = 12; grade 2 students = 11) and their four teachers participated. Although all students participated in the *At My Best K–3* program and the drawing exercise, student participants for the research study were purposefully selected based on the following criteria: (a) complete consent and assent forms; (b) gender balance, as much as possible (though, due to the voluntary nature of participation, gender balance was not always possible); and (c) level of engagement (students who were highly engaged and students who were less engaged were selected by the teacher based on their professional expertise and observations). The participating teachers assisted with the recruitment of students, using the aforementioned inclusion criteria. So, there were two data sources for this study. These included drawings and recorded discussions (drawing-telling) with student participants as a primary source of data and individual interviews with their teachers as a secondary source of data.

Drawing-telling with Students

Primary data collection was with the student participants and relied upon drawing-telling. According to Einarsdottir et al. (2009) and Wright (2007a, 2007b), drawing-telling refers to a combination of drawing while engaging in conversation. Drawing helps children “capture meaning beyond words, but words can help situate the expressive meaning of the drawing within a specific framework and context” (Freeman & Mathison, 2009, p. 127). Using drawings to access young children's perceptions of lived experiences is a non-threatening and familiar activity for children, therefore creating a comfortable research context (Weber et al., 2011). Literature suggests precautions must be taken when interpreting children's drawings as adults' perspectives can be markedly different from those of children, allowing for the risk of misinterpretations (Bosacki et al., 2012; Yurtal & Artut, 2010). To avoid this, the drawing-telling methodology has the child describe the contents of her/his drawing while the researcher documents these descriptions (Einarsdottir et al., 2009; Wright, 2007a, 2007b). The benefit of this drawing-telling approach is that it encourages collaborative meaning-making that allows the child to give voice to what the drawings are intended to convey (Guillemin, 2004; Mitchell et al., 2011).

In each location, the whole class engaged in the drawings as a natural extension of their health education class and the teachers were able to use the drawing exercise as part of their teaching. Each drawing focused on a specific question: (a) What did you learn in the *At My Best* program? (b) What does healthy living mean to you? (c) What makes you happy? (d) Can you draw your favourite lesson/activity/thing from the *At My Best* program? Upon completion of the whole class drawing activity, the researchers interviewed 4–6 students from each class individually or in pairs to discuss their drawings. As the goal of the research was to understand students'

experiences with and perceptions of the *At My Best K-3* program, both the drawing activity and guided conversational interview approach were used.

Interviews with Teachers

Secondary data collection was with the teacher participants and it relied upon individual interviews. The interviews with participating teachers (n = 4) were conducted at three of the participating schools. (Note that one teacher went on maternity leave and was unable to take part in the interview.) The interview questions were semi-structured so that the interview guide was consistent for all interviews while allowing for exploratory conversation shaped by unique local contexts. Questions focused on the following topics: (a) teachers' perceptions of the healthy eating, physical activity, and emotional well-being portions of *At My Best K-3*; (b) student engagement; (c) *At My Best K-3* materials; (d) program impact; and (e) inclusivity and cultural relevance.

Data Analysis

Drawing-telling with Students

Two levels of analysis were performed on the students' drawings. First, following the methodology as it has been utilized in previous research analyzing drawings by elementary students (Binfet, 2016; Bosacki et al., 2008), students' drawings were analyzed for their pictorial content. This involved the identification of whether the student included aspects of healthy eating, physical activity, and/or emotional well-being within their illustrations. These identifiers were chosen as the *At My Best K-3* program was designed to support children's personal health with the specific goals of helping students develop positive healthy eating, physical activity, and emotional well-being behaviours. The pictorial content analysis consisted of a quantitative component to account for the frequency (i.e., the percentage of students) that illustrated aspects of healthy eating, physical activity, and/or emotional well-being. Second, thematic analysis (Braun & Clarke, 2006) was used to identify themes and patterns in the data to gain a deeper understanding of students' experiences and perceptions of *At My Best K-3*, particularly as they relate to these three areas. Drawings and student interpretation of their drawings were discussed with the student participants for clarification of what they drew and why. Students were encouraged to offer feedback to the researchers to ensure 'fit' between respondents' views and researcher's representation of them (Tobin & Begley, 2004).

Interviews with Teachers

The interviews were transcribed verbatim. Analysis was guided by the objectives of this research, which included gaining an understanding of teachers' experiences and perceptions of program content, student engagement, program materials, program impact, and inclusivity and cultural relevance. Attending to data analysis guidelines offered by Braun and Clarke (2006), the research team: (a) reviewed the data; (b) developed the initial codes; (c) identified the themes; (d) reviewed the themes; (e) defined and names the themes; and (f) produced the findings. All four authors were involved in the six analysis guidelines presented by Braun and Clarke. Investigator triangulation was achieved by consensus decision making allowing the research team to balance potential bias of individual investigators (Lincoln & Guba, 1985).

Results

Students' Drawings-tellings

The results from the student participants' drawing-telling data are presented according to each question students were asked in the drawing-telling data collection methodology. For each question, pictorial descriptions and thematic descriptions are provided. Two student drawings related to the following results are offered below; these drawings include excerpts from the same student participants' tellings (see Figure 1). The results below also offer some percentages of student participation to provide additional context for the findings.

Figure 1

Sample Student Participants' Drawings and Tellings (Excerpts)



Picture 1: "I drew a bunch of fruits like an avocado, peach, mango, banana, and broccoli ... because they are super healthy for you especially avocado ... [things other than fruits that are healthy include] water and apples and other veggies too."

Picture 2: "I drew a water bottle and a bed sleeping and fluoride... [I drew sleeping because] it gives you energy when you wake up."

Picture 3: "It is half puppy and half unicorn and the lime because they are really juicy and sour and my little kitten."

Picture 4: “I drew Fred Junior, the pineapple that me and Siona made up and little Fred which is their cousin and Fred Junior is Fred’s niece. ... [We were supposed to draw] things that are healthy for us.”



Picture 1: “I drew a watermelon and an apple ... because they are healthy fruits... [Other healthy foods are] pineapple, a pear, grape...and broccoli, cauliflower, peas, carrots, potatoes.”

Picture 2: “[I drew] water and basketball... [Drinks not healthy like water] are juice, pop.”

Picture 3: “[I drew] my dog, my cats, and my five goldfish... [They make me happy] because I can spend time with them and I can feed them and play with them.”

Picture 4: “[I drew] the lunch bag [activity]... [We were supposed to draw] small things but you can put a lot of things in there. Fruit and vegetables.”

Drawing 1: What did you learn in the At My Best program?

Fifty-five percent of student participants included aspects of healthy eating in their illustrations regarding their learning in the *At My Best K–3* program. These illustrations included eating fruits and vegetables, avoiding unhealthy foods, and/or being around healthy food. Thirty-nine percent of student participants illustrated pictures related to physical activity when asked what they learned in the *At My Best K–3* program. These included drawings of physical activities such as running, throwing, balancing, and playing. A few students (6%) related their drawings to emotional well-being. These drawings related to dealing with emotions, getting enough sleep, and playing with others. The thematic content and descriptions follow.

Healthy Eating. Participants discussed how they learned to eat healthily in the *At My Best K–3* program. They described healthy eating as eating fruits and vegetables and avoiding unhealthy

food. For example, students explained their illustrations as “veggies, you have to eat healthy fruits because if you didn’t ... you could get sick” (Student A Grade K), “I drew fruit as they are super healthy for you, especially avocado” (Student D Grade 2), and “don’t eat junk food; it is not healthy” (Student C Grade 2).

Physical Activity. Participants shared that they learned and participated in engaging physical activities within the *At My Best K–3* program. These activities included movement skills such as “riding my bike because it is active and you can lose weight” (Student D Grade 1), “we talked about huffing and puffing games and activities to do” (Student B Grade K), and “running in the gym ... it is good exercise” (Student E Grade 1). Other learning related to physical activities included manipulative skills such as “how to throw” (Student A Grade 1) and “throwing the bean bags and getting better at it” (Student F Grade 2).

Emotional Well-being. The two participants who spoke to emotional well-being discussed how emotions and playing with friends were the topics they believed they learned in the *At My Best K–3* program. For example, they offered “learning about being happy, sad, excited” (Student C Grade K) and “it’s important to play with others” (Student A Grade 2).

Drawing 2: What does healthy living mean to you?

Fifty-five percent of the student participants illustrated that healthy eating expresses what healthy living means to them. Aspects of healthy eating included eating healthy foods and/or drinking water. Some participants (32%) recognized being physically active as their healthy living example. The remaining 13% of the students related their drawing and understanding of healthy living to emotional well-being, which involved playing with friends, being with or caring for others, or caring for the environment. The thematic content and descriptions follow.

Healthy Eating. Most participants perceived eating healthily as their meaning of healthy living. This included drawings and discussions around eating fruits and/or vegetables, drinking water, and avoiding sugar. The participants revealed that “drinking water is more healthy than juice or pop” (Student B Grade 2), “eating fruit and eating apples” (Student A Grade K), “me eating healthy. ... like don’t eat cakes or croissants” (Student A Grade 1), and “healthy eating is important” (Student G Grade 1).

Physical Activity. Some participants considered physical activities as a part of their meaning of healthy living. For example, they shared “I like playing in my backyard because I get fresh air” (Student D Grade K), “do jumping jacks until you are all sweaty” (Student E Grade 1), “me walking to school with my sister because exercise is good for my body” (Student A Grade 3), and “doing push-ups” (Student B Grade K) as examples of their understanding of healthy living.

Emotional Well-being. A small number of participants spoke to healthy living as caring for oneself. For example, one explained “I drew a water bottle and a bed sleeping ... these help your body to have energy when you wake up” (Student B Grade 2) while another shared “making myself happy” (Student A Grade K).

Drawing 3: What makes you happy?

While the student participants did not speak explicitly to emotional well-being, when asked to illustrate what makes them happy, a vast majority of them (74%) drew aspects of emotional well-being related to being with others and with pets. Some participants (26%) indicated that aspects of physical activity made them happy and there were no participants that drew anything related to healthy eating as something that makes them happy. The thematic content and descriptions follow.

Physical Activity. Some participants felt very happy when they took part in physical activities in the outdoors such as walking, riding their bike, swinging, and playing soccer. For example, students expressed what makes them happy as “swimming makes me happy” (Student B Grade 1), “swinging makes me happy” (Student D Grade 1), or “walking my dog” (Student C Grade K). One student spoke to an indoor activity of playing his (active) electronics as making him happy, “but not too much as it makes your brain rot” (Student C Grade 2).

Emotional Well-being. A majority of participants, regardless of grade level, indicated that being with parents/guardians and friends, as well as playing with pets, made them happy. For example, students shared “what makes me happy is when my dad hugs me and tucks me into bed at night” (Student B Grade 1), “walking with my mom makes me happy” (Student E Grade 1), “playing with my toys makes me happy” (Student E Grade 1), “playing with my friends makes me happy” (Student A Grade 2), and “my hamster always makes me happy when I am sad” (Student A Grade 2).

Drawing 4: Can you draw your favourite lesson/ activity/thing from the At My Best program?

The majority of student participants (84%) depicted physical activity from the program as a favourite lesson/activity/thing. Thirteen percent illustrated healthy eating from the program as their favourite lesson, while only one participant (3%) portrayed emotional well-being as their favourite part. The thematic content and descriptions follow.

Healthy Eating. Some participants selected healthy eating activities from the program as their favourite lesson/activity/thing. These included aspects of eating healthy like “lunch bag” and “drinking water” (Student G Grade 2), as well as “pineapples ... healthy things for us to eat” (Student B Grade 2).

Physical Activity. Participants described doing physical activities derived from the program as their favourite lesson/activity/thing and how sedentary activities negatively affect one’s health. These activities included bean bag games, body-shapes, and throwing beanbags and balls. Their favourites included “throwing balls into bins” (Student B Grade K), “following the teacher around the gym doing zig-zag and swirly shapes” (Student B Grade 1), and “ran around the gym doing the milky wave” (Student B Grade 2). Many students spoke to “making the shapes together with my partner” (Student A Grade 1) and “the cards and making the shapes” (Student B Grade 1). Others spoke of the “freeze dance” (Student E Grade 2), and one referred to not having enough physical activity as “too much screen time can lose your brain” (Student E Grade 2).

Emotional Well-being. There was one lone participant who described her/his favourite part of the program relating to emotional well-being. This was related to a task where students were required to write a poem. Telling about this drawing, this participant added “I am smart” (Student B Grade 2).

Teachers’ Interviews

The teacher participants revealed very positive perceptions about the content within the *At My Best K–3* program. Teachers discussed program content with respect to healthy eating-, physical activity-, and emotional well-being-focused lessons and activities. They also provided responses and information related to student engagement, *At My Best K–3* materials, program impact, and inclusivity and cultural relevance.

Healthy Eating Overall, the healthy eating part of the *At My Best K–3* program was well received. Some teachers utilized the activities to add to their nutrition lessons, while others made adaptations for their classes. Two teachers, for example, indicated that they “didn’t change much” (Teacher B) and “didn’t get to do much of the healthy eating stuff” (Teacher C). One commented, I did read the story and we talked about healthy eating and getting sleep and we talked about, just sort of, all the different types of health. But I didn’t get much into that. To be fair though, last term I did a healthy eating unit so we’d already talked about that too. (Teacher C)

One teacher commented on how some sections from a past version of the *At My Best K–3* program were omitted: “I missed the food sort from last year. That was a fun activity that the kids enjoyed” (Teacher A). As well, Teacher A commented on how children seemed confused about referring to a star: “In lesson four—energizing your star—we just refer back to the story to explain how food is important to having energy. I feel that this is less effective than referring to students’ own lives and experiences.” Teacher C utilized physical activity to get the message across regarding healthy eating. For example, it was noted by her,

Making it more active because kids get more out of it when making a game out of it like vegetable tag or making a ball a certain colour. Like making a red ball a sugar and understanding that the balls mean something and they are able to make the connection that nutrition changes our body. It’s just me being creative in my own ways to try and get these kids active while they are trying to learn these concepts. (Teacher C)

Another teacher also offered,

I combined this lesson with the ‘Huff and Puff’ lesson over a couple days. Before we went to do the activities in the gym, we cut up a huge bowl of apples and we had our healthy snack. During the snack we talked about why sugars in fruits are healthier than sugars in candy et cetera. We talked about long lasting energy as well. (Teacher A)

Physical Activity Teachers appreciated the physical activity learning opportunities for students. They reported that their students enjoyed being engaged in exploring these activities. One teacher stated that the students loved the “get up and go! They enjoyed sorting activities by throwing balls into labelled bins” (Teacher A). Teacher B’s class “really enjoyed the ‘Huff and Puff’ lesson, we went to the gym for these activities and they had lots of fun.” Although a majority of comments were positive, there were some lessons and/or physical activities that teachers did not enjoy. One teacher, for example, indicated,

Videos on the website were helpful for the songs/dances. However, the lessons I felt were sometimes awkward to participate in the physical activities the way they were described. For example, in lesson one using the 'If You're Healthy and You Know It' song to work in the ABC words. I just felt that the students did not really connect with the language and so their ideas were either superficial or did not make much sense.

(Teacher B)

Teacher C offered that she "liked that a lot of it you can do in your classroom. It's nice to know ... I went to the gym a little bit but it's nice to know that as long as you have some bean bags or something you can just pull that activity out and do it in the classroom."

Emotional Well-being Teachers made it clear that the emotional well-being portion of the program is an important aspect of *At My Best K-3*. However, Teacher A indicated this part of the program is "too brief ... could teach other social skills." Teacher B's students "loved the role-playing activity. I partnered them up and they had to do little skits for the examples provided." She further went on to suggest "rather than pointing to a given emotion in written form, ask all the As or Bs, et cetera, to come see the teacher. Teacher whispers the given emotion to the students. They go back and act it out." Teacher C spoke to this aspect of the programming "taking time." However, it is important to note that this teacher "learned a lot about the emotions in kids" (Teacher C). The related activities not only encouraged students to explore their emotional well-being but also connected all three aspects of health (healthy eating, physical activity, and emotional well-being) together.

Student Engagement Teachers reported students were engaged throughout the *At My Best K-3* program and enjoyed a variety of activities. Specific activities such as the 'Huff and Puff' and 'Milky Way Song and Dance' were class favourites. Teacher A reported that "many activities did engage kids. Most especially, the 'Feeling like a Detective' game. Also, the 'Get up and Go' [game]. The activity cards were also a hit." Other positive comments came forth around student engagement. For example, Teacher C shared "they liked them ... and had a lot of fun with them when we were doing them." Teacher C continued by indicating that the content was "quite enjoyable ... they enjoyed making the shapes with their bodies, liked the bullseye, throwing objects, and the 'ABC Challenge'."

At My Best K-3 Materials Teachers commented on how they "really liked that they had all the lessons and all the printable materials online. You could get them as a set or individually" (Teacher A). Although Teacher C spoke to liking the videos and the music, she made a few suggestions to improve the *At My Best K-3* materials. She questioned whether the music could be available in another format. She asked/suggested "could *At My Best* put the music on YouTube? Or iTunes on their phone, or maybe burn to a disc?" (Teacher C). She believed this would provide greater accessibility for various learning environments. Referring to the cards, Teacher C indicated that the "visual aspect" improved the learning environment. Teacher A indicated that the "lesson plans were useful ... pretty clear, however sometimes wordy. I would like to see more of a point form presentation, so we can go through with just a glance, rather than fully reading through as you teach." As well, Teacher A also noted that he was,

not a fan of the *On My Way* story book. I used the hardcopy this year. Many pages were out of place and pictures without explanation. It tries to do too much in one text. You

could have a whole story on just sedentary activity ... or healthy eating. The first read-through was long, and kids lost attention by the end.

Teacher B noted that “the letters to parents were helpful for explaining the intended purpose of the program” and that the “activity cards were nice to use. Very professionally produced, and the kids enjoy the spontaneity of flipping through them. I didn’t use the songs very much.”

Program Impact Teacher participants indicated that the *At My Best K–3* program “helped my practice drastically ... my practice-based, learning about students [sic] emotions was above and beyond” (Teacher C). Teacher B pointed out that she “appreciated a lot of the content that the program was able to teach. I especially appreciated the screen time lesson because this can be a topic that might seem judgmental or pushy to some parents or guardians. It was presented in a way that the students could easily understand.” Teacher C further explained that the *At My Best K–3* program allowed her to be “able to pull all the key health components out and put into my teaching program.” while Teacher D appreciated that “it’s not just gym, it’s health. I really liked that there was some health because I’ve had a hard finding some good health materials and I mostly have to make them myself ... the kids liked it.” Teacher D also felt that it “helped bridge that connection ... when we did the stars, we talked about how exercise is an important part of being healthy. It’s not just eating right. It’s also treating your body right in lots of different ways.” Finally, Teacher A indicated,

for new teachers who are struggling to fit health education into their practice, this program is good. However, to fully explore any one of these subject areas, I would probably spend a couple weeks on each. These lessons are each a good starting point. The lessons did provide good links to other resources teachers could use.

Inclusivity and Cultural Relevance The teachers had mixed responses whether the enhanced version of *At My Best K–3* program was inclusive and culturally appropriate for their students. For example, Teacher D noted, “It was fine. No problems there. It’s a PE program. So, I mean, it’s just movement and learning how to look after your body and those are the things that you learn.” Teacher B noted that “Yes they were inclusive. We have a vegan in our class and the nutrition portion was great. We also have a student with a limb difference and none of the activities would have excluded him.” However, Teacher A indicated that some of the content could be more relevant to students, offering,

I feel that the star story, in trying to include all kids from all backgrounds, kind of misses the mark. It doesn’t exclude anyone because it is about stars, and not people, right? However, I think kids would relate more if the story was about kids like them. Maybe breaking the big story into pieces. Each of which could be about a family of different background.

Teacher C also had mixed feelings on its inclusivity, suggesting,

I can’t say they are inclusive to all needs of individuals. Absolutely not because at this age level I don’t think you are going to find programming that can meet the needs of all students. It’s very hard at this age level because you have so many comprehensive delays that go on at this age. But that can’t be the focus of their program. That comes down to facilitation and how much support that you have.

Discussion

It is clear from the drawing-telling data that students learned about healthy behaviours as they relate to their own lives and contexts as a result of their participation in the *At My Best K–3* program, although the evidence for emotional well-being was minimal. Students enjoyed the physical activity portions of the lessons, especially those that incorporated manipulatives and group tasks. Furthermore, they enjoyed learning *through* movement—even when the learning was not *about* movement. In our experience, many health-focused activities seem to be sedentary (i.e., requiring students to sit, watch, and/or listen). Providing resources and supports for teachers to engage students in more kinesthetic learning (i.e., with movement) is an important finding.

Although their drawings reflected a preference for physical activity, healthy eating and emotional well-being also made an appearance. The healthy eating learning demonstrated in the drawing-telling activity are fairly low level (knowledge, understanding) and can be seen in binary relationships (e.g., water = healthy, pop = unhealthy). While these are primary grade students, it would still be important to stress a healthy relationship with food (e.g., framing categories such as ‘choose most often’, ‘choose sometimes’, and ‘choose least often’) so as not to demonize certain types of food or engage in ‘food shaming’ (Noble et al., 2000; Turner, 1997).

Interdependence between healthy eating and physical activity are critical (Tandon et al., 2016). However, only 6% and 13% of student drawings for the first two questions (respectively) featured emotional wellness. This finding suggests that students did not learn about emotional well-being through the *At My Best K–3* lessons as effectively as the program intended. Conversely, 74% referred to emotional well-being when answering the question “what makes you happy” and only a few drew something from the healthy eating or physical activity categories here. From this response, we can establish that while it is clear that students know about emotional well-being, they are not making the connections between the three areas and recognizing (for the most part) the interconnections and interrelatedness between them. There are some exceptions as, for example, Student B responded to the “what makes me happy” question by connecting emotional well-being (a hug from her dad) with physical well-being (a good night’s sleep). Continued work to improve student learning between these three domains of health would be important.

Teachers, especially new teachers, appreciate the *At My Best K–3* program as it provides both high quality learning materials and effective experiences for their students. Through the interviews, it became clear that sometimes health and physical education can be left for last in the teacher’s (and school’s priority) planning and implementation. This finding is consistent with the educational research demonstrating the low perceived value of health education in schools (Basch, 2011; Lu & McLean, 2011). *At My Best K–3* provides lessons that teachers enjoy and can put into action easily. The lessons are modifiable and adaptable and meet the needs of diverse populations. Therefore, for the most part, teachers found the program to be easy to use and an excellent support for teaching health to K–3 students.

Areas for improvement include increased integration of the three focus areas for effective learning *across* health domains. Emotional well-being was especially identified as an ongoing need for students and teachers would be appreciative of more resources and lessons in this area. As well, teachers identified a need and desire to teach students health outcomes and concepts through more active learning (kinesthetic). Health resources should assist teachers in ensuring the creation of learning environments where student differences are supported and celebrated (inclusion) so that ALL students are provided with the best opportunity to learn. To achieve this goal, a continued

focus on what teachers can do to promote culturally responsive environments should result in classes where students are connected and active members of the school community.

Limitations

Although the research team felt that there was much success in collecting and analyzing information, there were also limitations. First, one of the teachers who initially agreed to participate went on maternity leave and therefore was unable to be interviewed. Obtaining parental/guardian consent and student assent forms was also challenging. One site had zero forms returned, thus researchers were unable to utilize some drawings. As well, due to time constraints and other curricular demands, some teachers did not complete certain parts (activities) of the *At My Best K–3* program.

Concluding Comments

A concept-based approach to learning and a focus on the development of competencies to foster deeper, more transferable learning is paramount for learners of today. Health resources at this level should focus on active engagement of students in all learning tasks. Deeper learning is better achieved through ‘doing’ than through passive listening or reading. Overall, a health resource such as *At My Best K–3* was very well-received. Children had the opportunity to learn about the three topic areas as evidenced by their drawings and discussions. However, future resources should look closer at the development of competencies and learning outcomes that emphasize the interrelatedness and connectedness that exist between the domains of health. Teachers need quality, educationally sound resources to help them deliver health effectively. Developing resources by teachers, for teachers; vetting these resources through a nationally recognized organization like PHE Canada; researching and evaluating their impact and; making these resources freely available to teachers in an easy-to-use format will help support quality health education in schools—something that is sorely needed.

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