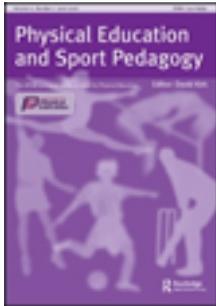


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Fitness for life primary: stakeholders' perceptions

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Fitness for life primary: stakeholders' perceptions

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Background: Currently, obesity is one major pressing health concern for children, with physical inactivity being one main contributor. Schools are an excellent venue to provide pupils with opportunities for physical activity; however, schools are in need of user-friendly intervention programs that increase pupil activity and healthy behavior knowledge.

Purpose: The purpose of this study was to examine primary stakeholders' perceptions of a recently developed comprehensive healthy behavior program, *Fitness for Life: Elementary*. *Methods:* Parents ($N = 342$), pupils ($N = 328$), and school staff ($N = 24$) completed a previously validated survey questionnaire. A smaller group of school staff ($n = 7$) also participated in formal interviews.

Results: Survey mean data indicated that average reactions from the participating stakeholders were positive. Classroom teachers who chose to participate had mostly positive reflections with three major themes identified: (a) teacher and pupil buy-in, (b) minimal teacher training, and (c) supportive administration.

Conclusions: Teacher training and pupil reinforcement were two key factors that positively affected participants' reported fidelity to the program. Although, at first, some classroom teachers chose not to participate, additional classroom teachers joined the project over time. Favorable ratings of the curriculum suggested that busy classroom teachers could implement physical activity programs using 'wellness weeks' into the classroom when provided with appropriate materials and support.

Keywords: intervention; primary; activity; school-based; perceptions

Childhood obesity rates have grown over the past few decades. The Center for Disease Control and Prevention (CDC) reported that childhood obesity rates in the USA has almost tripled from 7% in 1980 to 18% in 2010 (Ogden et al. 2010). UK has witnessed similar increases in the amount of overweight and obesity in children and adults (Sproston and Primatesta 2003). This is concerning since health risks such as osteoarthritis, coronary heart disease, hypertension, and diabetes have all been linked to obesity (Malnick and Knobler 2006). There are many factors associated with developing obesity (e.g. genetics, increase in sedentary activities, metabolism, high caloric meals, and high fat diets), however, unhealthy diet and inadequate physical activity are considered primary contributors (Dietz 2001). This study addresses stakeholders' perceptions of the implementation of a

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school-wide healthy behavior program aimed at developing healthy living knowledge and behaviors.

Schools are identified as key locations to teach healthy behavior strategies and provide a means for pupils to be active with the targeted outcome of decreasing the prevalence of childhood obesity (US Department of Health and Human Services [USDHHS] 2001). Unfortunately, it has been seen that many school districts in the USA have cut children's physical activity opportunities during school hours (e.g. recess and physical education) in an effort to increase pupils' academic achievement as measured by standardized tests (Thomas 2004). Research findings have shown however, that children who are healthy and regularly participate in physical activity tend to be more focused in the classroom (Strong et al. 2005). Furthermore, compared to pupils who do not regularly participate in physical activity, active pupils perform better in mathematics, science, and other subjects (Coe et al. 2006; Naylor et al. 2006). Positive health behaviors have the potential to become lifelong habits when these lifestyles are created at a young age (Pate et al. 1996).

Comprehensive healthy behavior interventions

One effective school-based method of reducing childhood obesity and increasing healthy behaviors is the implementation of comprehensive healthy behavior interventions (Strong et al. 2005). Comprehensive healthy behavior interventions target change from multiple points. For example, if an intervention team were looking to decrease obesity in schools, they could focus on not only providing healthy behavior knowledge and proper dietary choices, but also the means for children to be active. The primary objectives of comprehensive interventions are to increase the overall percentage of children engaged in physical activity and healthy eating habits. In addition, another objective is to increase the healthy behavior knowledge children learn on a daily basis, which can be defined as the knowledge needed for individuals to live a lifetime of activity and healthy eating (Zhu, Safrit, and Cohen 1999).

Research studies have shown a comprehensive approach to healthy behavior interventions has the most significant positive effects on obesity outcomes and physical activity patterns, as programs that are exclusive to one component often show little success in long-term maintenance (Veugelers and Fitzgerald 2005). Positive pupil outcomes have been reported from studies that examined the implementation of comprehensive healthy behavior interventions in primary schools. These outcomes have included: (a) an increase in daily physical activity levels (Jones et al. 2008; Simon et al. 2006; Verstraete et al. 2007), (b) a decrease in television viewing (Burke et al. 1998; Robinson 1999), (c) a decrease in body mass index (Burke et al. 1998; Manios et al. 1999), (d) an increase in healthy eating behaviors (Harrell et al. 2005), (e) improved self-management behaviors (Mahar et al. 2006), and (g) an increase in healthy behavior knowledge (Nemet, Geva, and Eliakim 2011).

Guskey's model of teacher change (GMTC)

GMTC (Guskey 2002) explains the teacher change process as it occurs in schools and serves as the theoretical framework for this study. This model assumes that teacher change begins during teacher training sessions and then progresses through a series of events. The classroom teacher needs to attempt to implement the newly adopted curriculum, resulting in a change in pupil learning outcomes, and if this is positive, it will lead to a change in teacher belief systems (Guskey 2002).

There are three overarching principles that are explained in GMTTC. The first principle states that teacher change takes time and effort to successfully change the rituals and practices of an experienced classroom teacher (Guskey 2002). Second, in order for the classroom teacher to 'buy into' the new curriculum, it is necessary for him or her to see positive changes in pupil learning (Guskey 2002). Third, a teacher needs support and follow-up from administrators, which aids the teacher with the newly implemented curriculum, thereby, completing the process of change (Guskey 2002). This model of teacher change has been supported through numerous other studies. Lowden (2006), for example, showed that teachers who participated in research-based professional development sessions over time revealed a perceived increase in pupil learning and academic achievement. Findings were associated with Guskey's principles and the need for administrative and training support during the process of teacher change.

Although intervention programs must change teachers' belief systems to produce ongoing sustainable effects, many other factors need to be satisfied in order for a comprehensive healthy behavior intervention to be effective. Short intervention programs (i.e. six to eight weeks in length) have shown to be unproductive and yield insignificant or ineffectual results (Dobbins et al. 2001). In order for an intervention program to create lasting change and offer effective results, Dobbins et al. (2001) suggest that 18 weeks may be a minimal time period for pupils to achieve maximum intervention outcomes. Another suggested recommendation is to provide printed educational materials that aid teachers in implementing interventions and teaching healthy behaviors (Dobbins et al. 2001). Comprehensive healthy behavior intervention programs should be integrated into the school day (or curriculum) and academic content areas with minimal interference to normal class procedures (Harrell et al. 2005).

Other research findings assert that it may be necessary to widen the scope of the comprehensive healthy behavior intervention by including parents and the community to support schools' promotion of children's healthy and active living from childhood through adulthood (Dobbins et al. 2001; Sharma 2007). Furthermore, Van Lippevelde et al. (2012) conducted a systematic review of all intervention studies from 1990 to 2010, and discovered that parental involvement had positive effects on children's physical activity and healthy eating habits; however, authors indicated that further examination of parental involvement during healthy behavior interventions is needed.

The purpose of this study was to examine and better understand stakeholders' (i.e. teachers, pupils, and parents) perceptions of a one-year comprehensive healthy behavior intervention program, *Fitness for Life: Elementary* (FFLE) (Corbin et al. 2011). The FFLE program aims to increase children's healthy behavior knowledge and physical activity opportunities during school hours. No other studies could be found investigating the FFLE program, therefore, any information on this comprehensive healthy behavior program and its process of change as it occurs in schools is valuable for school principals, curriculum developers, and teachers.

Methods

Fitness for Life: Elementary

The FFLE is a comprehensive primary curricular program that facilitates total school involvement (e.g. physical education lessons, classroom physical activity and discussions, recess, before and after school activities, eating healthy food, and family nights) that aims to deliver physical activity and teach concepts that promote healthy and active lifestyles. The FFLE

Table 1. Description of components in the FFLE program ‘wellness weeks.’

-
- (1) Physical activity breaks with the use of plug-and-play videos
 - (2) Physical activity breaks without the use of videos
 - (3) Classroom lessons and worksheets teaching about healthy behavior
 - (4) School-wide nutrition events
 - (5) Physical education lesson plans and activities
 - (6) School signs promotion of wellness
 - (7) School-wide physical activities
 - (8) Newsletters to help families get involved
 - (9) School-wide events
-

program is based on ‘wellness weeks,’ which occur four times over the course of the academic year. ‘Wellness weeks’ are performed as a school-wide event which involve wellness activities (e.g. ‘Eat Well Wednesday,’ ‘Get Fit Friday’) and other components (see Table 1 for the complete description of components used in the ‘wellness weeks’). This program offers classroom teachers with instructional aids (e.g. worksheets, lesson plans, and DVDs of pupil-centered physical activity breaks) to help with implementation of the curriculum.

The FFLE program is an extension of the *Fitness for Life: Middle School* (Corbin, Masurier, and Lambdin 2006) and the *Fitness for Life: High School* (Corbin and Lindsey 2007) curriculum, and expands the involvement of school staff beyond the physical education specialist. The FFLE curricular program was developed based on social learning theory, which proposes that people can learn new information and behaviors by watching the behaviors of others (Bandura 1977).

Design

This study was conducted in one suburban primary school with Kindergarten (4–5 years old) through fifth grade (10–11 years old) pupils in the Southwestern USA. Prior to engagement, classroom teachers and the physical education specialist participated in one, two-hour in-service session at the beginning of the academic year with the curriculum developer. The physical education specialist served as the ‘wellness coordinator’ and supported the teachers and school staff in implementing the four ‘wellness weeks.’ Teachers and pupils were given perceptual surveys twice over the course of the study. The term ‘midpoint’ refers to the time period of the first survey that occurred after the second ‘wellness week’ and the term ‘post’ refers to the time period after the fourth ‘wellness week.’ The main reason the surveys were given after the second ‘wellness week’ was to obtain initial perceptions of the FFLE program since perceptions would not be formed if participants had not engaged in the ‘wellness weeks.’ The participating parents also completed a perceptual survey; however, they were only given a survey at the ‘post’ time point. Further, a subsample of teachers were interviewed throughout the course of the academic year on their perceptions of the program using a convenience sample of teachers willing to speak with research team members. Pseudonyms were given to all teachers interviewed.

Participants

The stakeholders examined in this study consisted of teachers, pupils, and parents. Human participant approval was obtained from the University and school district and all participants provided Informed Consent with pupils also providing assent.

Teachers. All teachers ($N = 24$) at the school had an opportunity to participate in the study. From the pool of teachers at the school, a smaller number of teachers ($n = 8$) were found to implement at least one component of the program at the midpoint, and at the post-assessment questionnaire ($n = 16$). All teachers who submitted questionnaires ($n = 16$) reported their gender as female (94%) and male (6%) and ethnic backgrounds as Caucasian (75%), Hispanic (8%), and Other (17%). Years of teaching experience $M = 10.15$ (standard deviation (SD) = 9.43) were reported by teachers as well. Seven teachers participated in interviews. Teachers who were interviewed reported their gender as female (83%), and male (17%) with ethnic backgrounds reported as Caucasian (66%), Hispanic (17%), and Asian American (17%).

Pupils. Pupils ($N = 446$) in this study included Kindergarten (4–5 years old) through fourth grade (9–10 years old). More specifically, Kindergarten ($n = 26$), first grade ($n = 79$), second grade ($n = 72$), third grade ($n = 67$), and fourth grade ($n = 107$) pupils participated. Pupils reported their gender as female (48%) and male (52%).

Parents. The participating parents ($N = 342$) showed a significantly greater response from pupils' mothers (83%) than fathers (14%) with a few responses missing (3%). Ethnicities reported from the parents were Caucasian (57%), Hispanic (17%), African-American (9%), Asian-American (8%), and Others (6%).

Surveys

There were three different perceptual survey instruments used during the study that were specific to each participant group. Each survey had a four-point likert-like response scale and examined stakeholders' perceptions related to the implementation of the FFLE program. The first Likert-like rating was either a frown face for pupils or the number one for parents and teachers, which indicated a low response to the given item. This continued at various levels of frown/happy faces for pupils and numbers (2–4) for teacher and parents. A four indicated the most positive view.

Previous validation efforts showed that internal consistency reliability was adequate for all three instruments (> 0.80) with the stakeholder groups (i.e. pupils, parents, and teachers). The content of items on the three stakeholder instruments was also supported through review from 50 experts in the field of physical education who were a convenience sample of teachers pursuing graduate degrees (Kulinna et al. 2008). Experts recommended some word changes that were made on the instruments prior to their use to clarify the intent of each question (e.g. 'becoming more active' was changed to 'becoming more active from wellness weeks').

All teacher and pupil surveys were distributed and completed at the school. Stakeholder surveys for teachers and pupils were gathered immediately following the second 'wellness week,' while post-stakeholder surveys for teachers, pupils, and parents were collected immediately following the fourth 'wellness week.' Pupils completed the surveys in their respective physical education classes following the 'wellness week,' while classroom teachers were able to complete the surveys at their convenience and submit their responses to the physical education specialist at the end of the following week. Parent surveys were sent home and returned to the physical education specialist.

Teachers were encouraged to teach the curriculum (see Table 1) during the four 'wellness weeks' provided by the physical education specialist and principal at staff meetings. The physical education specialist created newsletters that were sent home before each of the four 'wellness weeks' in order to increase parental awareness. The newsletters

offered information on the material that was being taught, and updates on specific events the pupils were participating in that week.

Interviews

Interviews ($n = 7$) were conducted using a semi-structured interview guide with questions expanding on stakeholder survey topics (e.g. perceptions of the FFLE program and participating in physical activity, pitfalls or challenges, benefits) lasting from 15 minutes to one hour. For example, questions asked teachers to expand on the challenges and positive outcomes they found from participating in ‘wellness weeks’ with their classes. Interviews were mostly conducted during teacher preparation times in her/his classroom with two interviews also taking place before and after school.

Data analysis

Stakeholder surveys

Internal consistency reliability analyses were conducted on surveys of the three stakeholders (pupils, parents, and teachers) with the current sample. Descriptive statistics were calculated (means, SD, and frequencies) for all items on the surveys and totals created across items on each of the three stakeholder surveys. Student *t*-tests were conducted to investigate differences in survey responses from midpoint to post-program intervention for year one of the FFLE curricular program at the school.

Interviews

Interview data from the teachers were analyzed using constant comparison and analytic induction techniques (LeCompte and Preissle 1993) to compare data to the common themes from the survey (e.g. perceptions of the FFLE program and participating in physical activity, pitfalls, or challenges) as well as to identify additional common themes. Trustworthiness of the data was determined through member checks, negative case searches, and the involvement of a peer reviewer. The interviewer first read all transcripts and categorized comments into initial categories and subcategories. A second reviewer followed a similar process independently. Finally, after discussion and negotiations between peer reviewers, final themes were created. Both reviewers then went through and independently searched for negative cases of the themes. None were found. Finally, the major themes were sent to the interview participants for member checking. All participants agreed that the themes represented their perceptions of the implementation of the FFLE curricular program in their school.

Results

Surveys

Internal consistency reliabilities were 0.88, 0.98, and 0.88 for the pupil, parent, and teacher stakeholder surveys, respectively. Overall, stakeholders’ perceptions were positive toward the FFLE program with mean item values for pupils being $M = 3.24$ ($SD = 0.79$), teachers $M = 2.75$ ($SD = 0.73$), and parents $M = 3.06$ ($SD = 0.51$) on a scale of 1–4. Table 2 provides descriptive information grouped into four conceptually logical categories. Student

Table 2. Means and SDs for questionnaire items.

Categories	Parent (<i>N</i> = 342)	Pupil (<i>N</i> = 328)	Teacher (<i>N</i> = 24)	Midpoint <i>M</i> (SD)	Post- <i>M</i> (SD)
<i>Survey items</i>					
Changes to the culture of the school					
Currently (the school) is doing more to promote daily physical activity and around nutrition during the school day because of wellness week activities	X				3.22 (0.66)
Currently (the school) is doing more to promote daily PA and sound nutrition during the school day because of wellness week activities			X	3.23 (0.60)	3.29 (0.49)
I learned about nutrition during wellness week		X		3.27 (0.95)	3.43 (0.89)
I learned about exercise during wellness week		X		3.48 (0.84)	3.57 (0.84)
Wellness week helped me eat better		X		3.07 (1.11)	3.20 (1.04)
Wellness week helped me be more active		X		3.28 (1.02)	3.52 (0.85)
Communicating on wellness weeks					
Our <i>pupils</i> frequently talk about being active and eating well during wellness week			X	2.54 (0.78)	3.00 (0.58)
I talked about wellness week at home		X		2.51 (1.27)	2.81 (1.26)
My child talks about wellness week at home	X				2.87 (0.85)
My child talks about being healthy and active at home	X				3.23 (0.74)
Becoming more active from wellness weeks					
Because of (the school) efforts in promoting daily physical activity, my child is now more active on weekends	X				2.63 (0.77)
Wellness week helped me be more active		X		3.28 (0.95)	3.52 (0.89)
I support programs that fight obesity by increasing PA and teaching about healthy eating	X				3.76 (0.49)
I think it is important to be active each day		X		3.81 (0.57)	3.8 (0.57)
I think it is important to eat healthy everyday		X		3.76 (0.64)	3.77 (0.59)

(Continued)

Table 2. Continued.

Categories	Parent (<i>N</i> = 342)	Pupil (<i>N</i> = 328)	Teacher (<i>N</i> = 24)	Midpoint <i>M</i> (SD)	Post- <i>M</i> (SD)
For me, time for <i>pupils</i> in PE is as important as time in classroom subjects			X	3.17 (0.39)	3.14 (0.38)
Thoughts on being active and healthy					
I support programs that fight obesity by increasing PA and teaching about healthy eating	X				3.76 (0.49)
I think it is important to be active each day		X		3.81 (0.57)	3.8 (0.57)
I think it is important to eat healthy everyday		X		3.76 (0.64)	3.77 (0.59)
For me, time for pupils in PE is as important as time in classroom subjects			X	3.17 (0.39)	3.14 (0.38)

Notes: The 'X' indicates if the mean value represents perceptions of parents, pupils, or teachers, with the corresponding mean and SD for the response item; PA, physical activity; PE, physical education.

Table 3. Midpoint and post-significant differences among items.

Questions	Midpoint <i>M</i> (SD)	Post <i>M</i> (SD)	<i>t</i>	<i>p</i>
<i>Pupils</i>				
I liked doing wellness week video activities	3.17 (0.94)	3.39 (0.91)	4.99	.01
I learned about nutrition during wellness week	3.27 (0.95)	3.43 (0.89)	3.18	.01
Wellness week helped me be more active	3.28 (1.03)	3.52 (0.85)	2.42	.01
<i>Teachers</i>				
Daily physical activity breaks for teachers are needed as well	3.14 (0.69)	3.17 (0.39)	3.00	.01
Wellness week activities help my pupils focus and perform better in classroom lessons	2.92 (0.67)	3.14 (0.38)	3.28	.01
I think that I would use some of the wellness week activities during other weeks of the year	3.00 (0.89)	3.58 (0.51)	2.34	.04

Notes: Degrees of freedom were 179 for pupils and 5 for teacher *t*-test results.

t-tests were performed for the total survey scores and by item for the teacher and pupil surveys since they completed the stakeholder perceptual survey twice throughout the program implementation. Total survey scores were not significantly different between the two surveys [$t(5) = 2.0, p = .102$] and [$t(179) = 1.18, p = .239$]. There were however, a few items that showed significant changes for teacher and pupil perceptions from midpoint to post-survey results (see Table 3).

Interviews

Findings from the interview data yielded three common themes. ‘Teacher and pupil buy-in’ is the first theme described in this study. This theme explains why the FFLE program was fun or easy to implement based upon pupil and teacher perceptions. ‘Minimal teacher training,’ the second theme, explains that teachers needed few professional development sessions and resources in order to confidently implement all components of the FFLE program. The last theme was the ‘Supportive administration,’ which can be noted as the principal and vice-principal. This theme indicates that teachers needed explicit support from administrators in order to adhere to the program and conduct the lessons and activities in class.

Teacher and pupil ‘buy-in’

Teacher ‘buy-in’

Jane, the physical education specialist and wellness coordinator, spoke about the FFLE program and the reasons as to why she thought the classroom teachers made the decision to use the program in their classroom, ‘... they do it seems that a lot of the weight of the program is based on teacher attitudes toward, well their value system, exercise, and what they believe it [being healthy and active] is significant themselves.’ Sara, a fourth grade (9–10-year-olds) teacher confirmed this sentiment when she indicated that this program seemed important and easy to implement, ‘[At the beginning of the year] the creator of this spoke to us, and I was very intrigued because I think it is so important to include all of this into our everyday ... and it looked so easy.’

Once the teachers decided to try to implement the program in their classrooms, it was found that the teachers perceived the program to have health benefits and positive outcomes for pupils. Beth, a female teacher, explained one reason she ‘bought into’ the FFLE curriculum:

Initially I had a mixed reaction, the one part of teaching feeling kinda overwhelmed with the things that are going on, oh one more thing to fit in, but then there is another part of me that I am a big believer in fitness and how important it is for kids so I was excited about it. A little hesitant in the beginning but once we got into it; I could really see the benefits of the program. (Kindergarten [4–5 years olds] teacher)

Other classroom teachers thought the program was easy to implement. Jenna stated, ‘As far as the lessons, it’s laid out so well and this guide for teachers that you know exactly what you’re going to cover and teach’ (Third grade [8–9-year-olds] teacher). Moreover, Jenna also stated that pupils enjoyed participating in the physical activity breaks and there were rarely any behavioral issues, ‘... there has been no resistance at all, they really enjoy it [physical activity breaks with the videos].’

There were a limited number of teachers willing to participate or attempt any FFLE components in their classroom. Initial results indicated only 8 out of 26 teachers chose to participate in the program; however, at post-assessment an additional eight teachers totaling 16 teachers were using one or more of the components of the FFLE curricular program. Jane, the physical education specialist explained why she thought some of the other teachers chose not to participate, ‘Some teachers are choosing to not do the program for whatever reason, whether it’s their classroom time or they don’t have a value for the program.’

Pupil ‘buy-in’

Pupil ‘buy-in’ to the FFLE was seen as a driving force for teachers to continue the implementation of the program. For example, teachers noticed that pupils were interested in continuing the activities used in the classroom even when ‘wellness weeks’ were not being conducted. Gail stated that, ‘the kids really love it, so even after wellness week they ask, “are we going to do it again?”’ (First grade [6–7-year olds] teacher). Similarly, Jeffrey (School Administrator) expressed the view that the program included age appropriate activities that pupils seem to enjoy. He shared the following:

I have observed a fourth grade (9–10 years olds) class, a couple weeks ago, these are fourth graders (9–10 years olds) so they are pretty big kids, and they were all jazzed and they were liking it. I thought that maybe some of the boys would be too cool to follow the movement. But – NO – [the creator] has really identified with the kids and the kind of music they like, so the fourth graders (9–10 years olds) have more hip hop and the dance steps were you know, were a little more cool.

An example of this was seen in a Kindergarten (4–5-year-olds) class; as Beth explained:

There [are] certain kids you know are shy to do things so they shy away from it. But then you have kids who are hovering over the smart board, and they are so excited I mean think about their excitement compared to when we are talking or doing math but they love math, and they gravitate towards this kind of stuff, they get to bounce around with their friends and get their heart rate up. You know they are having fun, playing and learning about how to be physically active.

Minimal teacher training

The second theme found was how teachers believed the FFLE was easy to implement and there was no need for any additional training. Although there was only one in-service

session provided to teachers at the beginning of the school year, the seven teachers who participated in the interviews explained this to be ‘just enough,’ given the simplicity of FFLE program, along with the ongoing support from the physical education specialist. Britney explained:

I think we kind of met as a whole school about it and kind of went through some of the demonstrations. I wouldn’t say there was a real intense training program, you put it in, you kind of read it over with your co-workers, and you kind of figure it out. So we kind of figured it out more on our own than kind of a structured training program. But it is pretty simple and you can see why they didn’t need to put in that extra time to kind a train us on how to do it, it is pretty self-explanatory. So easy to learn. (Kindergarten [4–5 years olds] teacher)

Jenna agreed, stating:

Yea, so straightforward [FFLE]. That if you looked at it and read it, and taught it, you would find that it’s so easy to follow and so teacher friendly. I think if you had like a conference about ‘this is how you do it’ I think maybe more people would get to do it, but literally though, if the teachers just open the book and look at it, you can do it. (Third grade [8–9 years olds] teacher)

Supportive administration

Administration in this study consisted of the principal and assistant principal of the school. It was shown that the administrative support for teachers was helpful, as this was the third theme found among teacher interviews. Beth, a Kindergarten (4–5-year-olds) teacher stated, ‘Support from the administration has been great . . . even with it being the first year of doing something.’ Rita, a second grade (7–8-year-olds) teacher also commented on the support from the administration, ‘They [administrators] would come in and watch us during wellness activities . . . he [principal] is very active, and keeps us knowing he cares.’

Other teachers mentioned that the immense support (e.g. from principal, vice-principal, and physical education specialist) for the FFLE program was helpful in increasing their confidence and willingness to try some of the activities of the intervention. For example, teachers explained that seeing the activities in action during the morning announcements, which were televised into every classroom, was motivating. Jenna explained, ‘The administration [principal and vice-principal] are really supportive of it [FFLE]. They [administration] think it is great, they have it on the morning announcements when it’s wellness week and everything’ (Third grade [8–9-year-olds] teacher).

Discussion

Stakeholders’ perceptions

Pupils

Although the *t*-test results between the first and second survey administration were not significantly different, the overall pupil perceptions of the FFLE program were positive at both survey administrations. As Guskey (2002) explains, in order for teacher change to proceed seamlessly, there needs to be noticeable positive pupil outcomes. One positive outcome found from the pupil perceptual survey was that they felt they had increased physical activity levels during the ‘wellness weeks.’ These results are noteworthy, given an increase in physical activity (among other factors) is vital for combating childhood obesity as well as providing a myriad of health benefits (USDHHS 2008). Additionally, Wang et al. (2006)

explained that the major cause of childhood obesity is an imbalance between calories consumed and energy output, which Wang et al. referred to as the ‘energy gap’ (1722). Therefore, intervention programs that increase pupil physical activity are important and should be implemented during school hours. Another finding from the pupil perceptual survey was that pupils felt they gained knowledge about healthy behaviors during ‘wellness weeks.’ These results are worth noting as research has found adequate healthy behavior knowledge has been a determinant of physical activity behaviors (DiLorenzo et al. 1998).

Parents

With mean values from the parental perceptual survey being $M = 3.06$ ($SD = 0.51$) out a scale of 1–4, it can be concluded that parents also had a positive perception towards the FFLE program. The specific item in the parent survey that yielded the highest mean score was the question; ‘I support a program that fights obesity by increasing physical activity and teaching about healthy eating.’ Therefore, it may be concluded that the parents from this study were in support of the FFLE program and their child becoming more active and eating healthy food during school hours. This finding is important as past studies have examined parental involvement within curricular programs and found that parental involvement positively impacts children’s physical activity levels and healthy eating behaviors (Dobbins et al. 2001; Sharma 2007).

It is also worth noting from the parent survey the responses to the question, ‘My child talks about being healthy and active at home.’ The majority of parents reported their children discussing their events and experiences during the ‘wellness weeks’ at home. This may be seen as another indication that the pupils had favorable perceptions of the FFLE program as well as the extensions of the program impact beyond the school day.

The lowest scoring item found from the parental perception survey was, ‘Because of (the school) efforts in promoting daily physical activity, my child is now more active on weekends.’ Although this is not one of the major targeted outcomes of the FFLE program, a recent report conducted in the USA indicated that only 33% of children aged 9–13 years had engaged in free-time physical activity during the previous seven days (CDC 2010). Therefore, this should always be considered as an important target in healthy behavior interventions.

Teachers

Based on the teacher perceptual survey, they also had modest favorable perceptions of the FFLE program. One high scoring item reported was ‘Wellness week activities help my pupils focus and perform better in classroom lessons.’ This suggests that teachers noticed positive change in their pupils’ ability to learn, which is one of the Guskey (2002) principles needed for teacher change. Mahar et al. (2006) found similar results when they examined Kindergarten (4–5-year olds) through fourth grade (9–10-year olds) pupils during the implementation of a classroom-based physical activity break program called Energizers. Energizers provide classroom teachers with a variety of physical activity breaks that last approximately 5–10 minutes that are tied to academic concepts and can be used to break up the long instructional and sitting time. Results indicated a significant increase in physical activity steps and an improvement with on-task behavior for the group receiving the Energizers as compared to the control group (Mahar et al. 2006). While the participating teachers had generally positive views of the Fitness for Life programming, there were other teachers who had not yet ‘bought into’ the new ideas.

Cothran, Kulinna, and Garn (2010) reported that teachers' willingness to engage in a comprehensive healthy behavior intervention was influenced positively by their own personal wellness history and caring about pupils.

To complete the process of teacher change, continual support and follow-up from administrators is needed (Guskey 2002). Similarly, this was the third theme that emerged from the data. All participating teachers interviewed explained that the support from the administration and the physical education teacher were helpful and aided their continuation of the FFLE program. Teachers appreciated being notified when the 'wellness weeks' were occurring and the support school administrators offered throughout the year (e.g. enthusiasm for the program, playing of activity breaks during morning announcements, attending scheduled health lessons). It can be concluded that support was a necessary component for the success of FFLE and should be considered when attempting to incorporate a new comprehensive physical activity program in schools.

There were three mentionable limitations of this study. First, not all teachers were represented at this school, 16 out of the 28 teachers participated leaving eight teachers who decided not to attempt the FFLE program or be open to an interview on the healthy behavior change process that took place at their school. Therefore, one should use caution when generalizing the findings. Second, the study lasted for one-year and any long-term effects of the FFLE program were not examined, and should be studied. Additional longitudinal studies on the effects of the FFLE program will better inform policy and curricular decisions, especially for those curricular programs reporting positive stakeholder perceptions, such as FFLE. Another limitation worth noting is that there were no actual measurements of health behaviors or pupil knowledge tests conducted during the implementation of the FFLE program. All findings are associated with perceptions; limiting the results to represent views rather than outcomes. Further measurement of health behaviors (e.g. physical activity levels, knowledge changes) are needed to fully address the quality of the FFLE program.

This study provides further support for Guskey (2002) that if intervention designers and teachers follow the principles (i.e. attempt the program, observed positive pupil outcomes, and support from administrators), there is a strong likelihood that the teachers will continue to use the implemented program. More specifically, this study concluded that participating stakeholders' perceptions of the FFLE were generally positive. Pupils documented the most positive perceptions toward the curricular program, which was seen to positively influence the teachers who chose to participate and to continue the implementation of the FFLE program. Subsequently, if policy and decision-makers follow the requisite process of change, implementation of this program can be constructive. Pupils will be seen engaging in more physical activity throughout the day, further expanding their understanding toward healthy behavior knowledge, and increase cognitive functioning (e.g. attention, on-task behavior) in the classroom.

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