

Process Evaluation on the YES Intervention

A CAPSTONE REPORT IN THE
Science of Public Health

Presented to the Faculty of the University of Missouri- Kansas City

In partial fulfillment of the requirements for the degree of

Bachelor's Science of Public Health

By

Brittane' Johnson-Triplett

Kansas City, Missouri

2020

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Abstract

Background: Childhood obesity affects 13.7 million children and adolescents which makes up almost 20% of the world's population. Childhood obesity continues to see an increase in cases each year. The Youth Engagement in Sports Intervention (YES) focused on combating childhood obesity by introducing alternative methods of physical activity in the form of intramural sports and nutrition education. **Objective:** The purpose of this capstone was to conduct a process evaluation on the YES intervention. The focus was to understand and identify themes within implementation of the intervention. **Methods:** A series of baseline interviews were conducted. Themes were identified using NVivo. **Results:** Six different themes were identified. The themes communication, organizational strengths, and implementation produced the greatest quantity of codes. Implementation progressed efficiently, but there was a lack of effective communication which posed some challenges to the intervention. **Conclusion:** The themes organizational strengths, implementation, and communication are fundamental when implementing public health interventions. When conducting interventions researchers should focus on communication between partners, maximizing use of resources and organizational strengths, and effective implementation programming.

Introduction

Thirteen point seven million children in the United States alone are obese. Obesity prevalence among children was higher in the US compared to other countries. Among 12- to 19-year olds, incidence was up to 20.6% (Centers for Disease Control and Prevention, n.d.). Obese children have increased risks of diabetes, hypertension, fatty liver disease, metabolic syndrome, and premature death (Bass, 2015). Public health professionals focus on improving health outcomes and providing prevention methods that work. Public health interventions tend to try and solve or diminish problems that have more than one causing factor. Interventions usually contain several different components to account for various outcomes. Conducting a process evaluation helps to understand the relationship between the intervention and its components, or its implementation. When a program has been successful, it's important to be able to understand and convey which aspects of the program made it successful (Steckler, & Linnan, 2002). Researchers must be able to recreate those successes from the information gathered and lessons learned from the intervention. Process evaluations are important when it comes to research interventions because they help researchers gauge gaps in knowledge and action in terms of implementation and key components of the program. The information gathered from the evaluation can help answer questions that help further the understanding of how public health interventions work best (Steckler, & Linnan, 2002).

Background

The Youth Engagement in Sports Intervention (YES) was a community-based participatory project that implemented an after school physical activity and nutrition program geared toward

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low-income middle school girls in Kansas City, MO. There were two control and two intervention schools: Foreign Language Academy and Lincoln Middle School, and Central Middle School and Northeast Middle School respectively. The schools were chosen due to need and the abundance or lack of resources for the children. The participants of the program were African American, Hispanic, and Caucasian, who represented various socioeconomic statuses. Research has shown that minorities and low-income youth have lower rates of participation in sports (Volger, Rigassio, Radler, & Rothpletz-Puglia, 2018). This was a relatively small sample size in which the intervention hoped the findings could be applied to a wider range of populations. Research has shown that children need to participate in structured physical activities to avoid obesity and to engage in sports and games in the future (Chang & Kim, 2017).

The children in the target population have little access to varied physical activity options. Children from low-income families were reported less likely to have opportunities for group physical activities because of different environmental factors such as limited access to playgrounds or unsafe neighborhoods. Poor nutrition education was also a big issue in low-income areas. There was a lack of resources and funding in middle schools of low-income neighborhoods and it formed a variety of barriers when it came to being active (Chang & Kim, 2017). The youth suffer from high rates of obesity and inactivity with the addition of poor nutrition. To combat this, the project aim was to focus on increasing physical activity and nutrition education. This was important because this allowed public health officials another option when it comes to childhood obesity prevention programming. The point is that kids will continue to be obese and rates will continue to increase but as long as there is evidence that these prevention methods work, childhood obesity can be prevented. There was a need to implement early childhood obesity prevention efforts.

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Addressing those research gaps with evidence-based results will facilitate policy decisions and funding to decrease the prevalence of childhood obesity (Volger, Rigassio, Radler, & Rothpletz-Puglia, 2018).

Community Partners

The YES intervention had a range of community partnerships. There were five different groups participating with the implementation of this intervention: Truman Medical Center, University of Missouri- Kansas City (UMKC), Children's Mercy Hospital, Youth Ambassadors (YA), and KC Parks and Recreation. The Kansas City Public School district allowed the intervention to take place in their schools. Students perform better academically with the addition of sports and nutrition programs (Centers for Disease Control and Prevention, n.d.). The intervention intended to provide those opportunities of enhanced levels of sports engagement which would help with the intake of quality of education the children received. Truman Medical Center had their strengths in community health strategies. As a part of the intervention they were providing access to the Health Harvest Mobile Market. This included the delivery of fresh fruits and vegetables to the intervention schools. Truman Medical brought their expertise in health and nutrition to provide adequate nutritional education to the children in the program.

Children's Mercy Hospital's role in the intervention was to help aid in the nutrition education aspect of the program. They were to offer short nutrition sessions with the children to teach them about healthier options when it came to food. School students receive less than 8 hours of required nutrition education a year. For sustainable behavior change there is a need of 40 to 50

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hours a year (Centers for Disease Control and Prevention, n.d.). Kansas City Parks and Recreation were in charge of the physical activity the children performed. The intramural sports portion of the intervention was intended to introduce new sports activities to the children. This would give them the opportunity to engage in sports they were interested in a non-competitive atmosphere. Youth Ambassadors joined the intervention with the focus of mental health and exercise. YA were to deliver counseling to students who might've needed extra support the duration of the program. The University of Missouri- Kansas City lead the program through its formation and handled program enrollment, data collection, and analysis. Research assistants were recruited and trained to help implement the program.

Partnerships were key to this project. For this program, the organizations implemented areas where they had expertise. This was shown to be important for the appropriate delivery of the intervention (Brownson, Fielding, & Green, 2018). The point of coming together and working on this research program was to build organizational capacity among these organizations and establish relationships for the ease of future projects. There were hopes for widespread application of this intervention and combining expertise and resources would have made it easier to do so. Capacity building in terms of public health involves strengthening management, activities, and agencies to improve performance and inter-organizational relationships (Brownson, Fielding, & Green, 2018). For the YES intervention communication and cooperation were key for successful implementation. The essence of community capacity building focuses on the ability to do new things and improve on what current resources are already available. This was important because the organizations involved can develop their specific competencies and strengths and make them

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widely available and more sustainable. This would increase the number of assets and opportunities accessible to those in the community who need it and help solve different public health issues.

Intervention

All the children in the program received Garmin Vivofit 4 fitness trackers. Once a week to two weeks, research assistants went to all four of middle schools to sync the bracelets and get the physical activity data from it. Attendance to the overall program was taken every day. The intervention schools were to get about an hour of group physical activity in the form of intramural sports every day. Coaches from Kansas City Parks and Recreation went to both schools and provided instruction in the form of physical activity. There was a range of activities that the students could partake in. The coaches were told to log the activities each day and how many minutes it was performed. There was also supplemental surveys that the coaches could take and submit if they felt like a child needed extra attention or care. Once a week the Healthy Harvest Mobile Market provided by Truman Medical Center came to deliver a bag of fruits and vegetables to the children. The attendance of which kids got a bag, and which did not was recorded as well.

Comparison

What the YES intervention was hoping to compare was the difference in behavior change with the insertion of physical activity and nutrition education in the intervention schools versus the control schools. Data collected at baseline, 3-months, 6-months, 12-months, 18-months, and 24-months would be compared to fully understand the changes occurring in the intervention. They

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wanted to compare the increase in the amount of time performing physical activity and the consumption of healthier foods and how effective it is in improving the health of the children. The data that came from the study would also help determine how sustainable this kind of intervention is with hopes to continue it and expand to more inner-city schools.

Outcome

The outcome of importance for the intervention was to have evidence of behavior change. Through the process of establishing community relationships and building capacity across the city, there was an anticipated outcome of a cost-efficient sustainable method in improving health in impoverished areas that can be replicated anywhere programs like this are needed. There was a hope that this community-based research program would increase physical activity in children and educate them on healthy eating behaviors and nutrition. The YES intervention hoped that the effects of the program will be maintained after kids leave the intervention.

Purpose

Public Health Action

The public health action was to conduct a process evaluation on the Youth Engagement in Sports Intervention (YES). The aim of this project was to understand and establish codes and themes within the varied organizations apart of the intervention. The evaluation occurred through the course of interviews throughout the duration of the first half of the intervention. This was the first time these organizations came together and worked in this capacity towards a common goal.

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Conducting a process evaluation for this program was important because researchers need to see what was actually being implemented in the practice and why (Moore et al., 2014).

Theory

The YES intervention used the Consolidated Framework for Implementation Research (CFIR) to assess how the groups involved in this intervention worked together, shown in figure 1. CFIR is a framework that identifies key factors that could influence intervention implementation and effectiveness (Keith et al., 2017). If used in the initial stages of implementation, CFIR can help to inform stakeholders on possible improvements to the intervention and its implementation. The five domains of CFIR include intervention characteristics, inner setting, outer setting, characteristics of individuals involved, and implementation process. Intervention characteristics were the essential elements of the intervention. Those characteristics were adaptable elements in which the intervention or project occurs. Inner setting are the structures in which the intervention proceeds and the relationships between those elements. The outer setting are the economic context to which an organization resides. Characteristics of the individuals were the people responsible for carrying out the intervention or those related to the intervention. This included the relationships they had to each other and the program itself. Lastly, implementation process was the active process through which the desired changes were achieved (Saluja et al., 2017).

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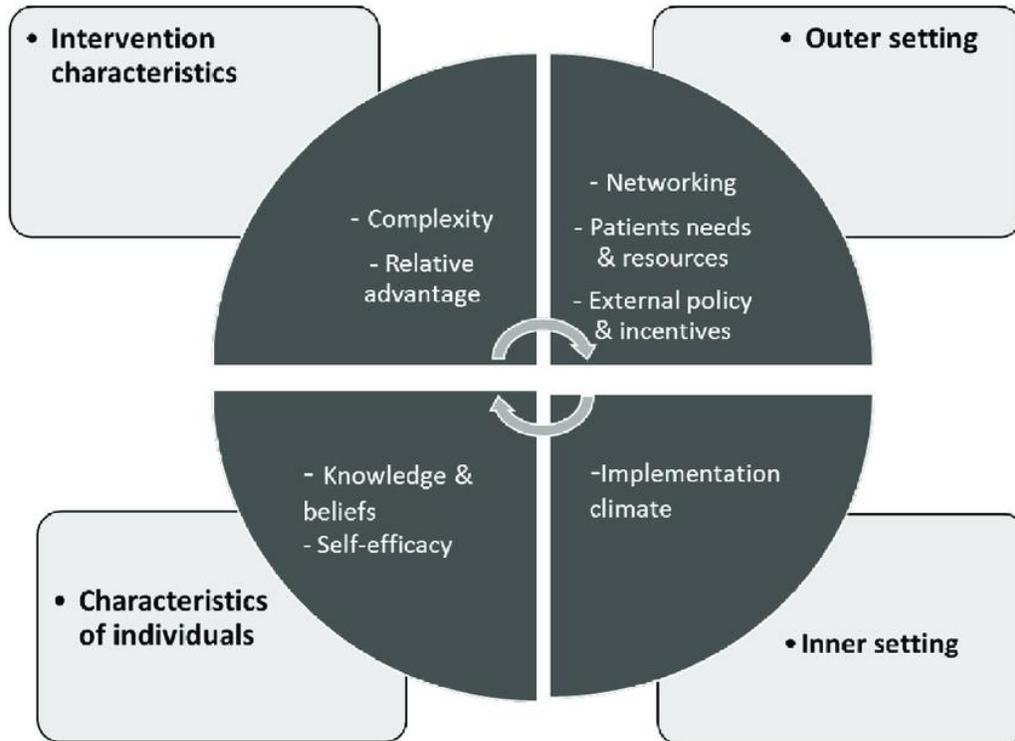


Figure 1. CONSOLIDATED FRAMEWORK FOR IMPLEMENTATION RESEARCH (Keith et al., 2017).

Literature Search

There was a lot of information regarding studies conducted that focused on increasing physical activity in middle school children. Those studies revolved around potential programs linking schools in regard to physical education, health education, social ties, and community engagement (Kearns, Kleinert, & Dupont-Versteegden, 2019). Those studies specialized in evaluation of the effects of middle school children physical activity and healthy eating through interventions including environmental impacts, self-efficacy and motivation, and enjoyment (Barr-Anderson et al., 2007). The articles of importance concerning implementation science were about how evidence has shown that the best kind of implementation for physical activity for children was with the combination of schools. The controlled environment of a school was able to provide

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the resources needed for the programs to be successful. Evidence-based practices in terms of physical activity interventions are not new. Physical activity programs for schools are abundant (Gao, Newton, & Carson, 2020). However, implementation science is an emerging field in the area of physical activity (Naylor et al, 2015).

There was a consensus that implementation research is necessary to address the many challenges in the slow adoption of evidence-based practices in the health community. There was an increased interest in research on how to translate best practices into practice (Wensing & Grol, 2019). Implementation science is an emerging field in terms of research but there has not been many successful studies in the realm of physical activity and middle schools. Within the topic of implementation science and physical activity, there were major gaps in evidence-based studies. Identified models, theories, and frameworks that were needed to fully understand the scope of intervention implementation and health outcomes need more research (Kearns, Kleinert, & Dupont-Versteegden, 2019). There was a lack of information about how those theories and models worked within the nature of health education and physical activity. There was a need for quality improvement and evaluation as an approach to implementation science in contrast to other types of research (Livingood et al, 2020).

CFIR has often been used in regard to implementation science to help determine effectiveness of approach and quality improvement of research design. It was a common design used in evidence-based interventions and was developed to guide effective implementation. CFIR was used to guide data collection, coding analysis, measurement, and reporting (Kirk et al, 2016). The framework encompassed concepts for facilitators and barriers to implementation which helped in its appeal. It consisted of 39 constructs within five domains (Safaeinili, Brown-Johnson, Shaw,

Mahoney, & Winglet, 2019). CFIR was applicable in a wide range of studies but most get more depth of use in studies involving implementation science. CFIR was often consulted during each phase of the research process and was vital in the determinants of implementation outcomes. It was used when the researchers want to develop their own collection guides and interpret/report those findings. (Kirk et al, 2016). This framework can help guide every aspect of a project and help it excel.

Methods

A series of interviews from a representative in each participating group were conducted and analyzed through the NVivo 12 application.

The methods to complete the process evaluation were as follows:

1. Find and establish the framework used.
2. Develop a script for baseline interviews
3. Conduct baseline interviews
4. Listen to interviews
5. Go through interview transcripts
6. Establish codes and themes
7. Draw conclusions based on themes

Figure 2 shows the baseline questions each participant will be asked during the initial interview process.

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Characteristics of the Intervention

- How did you get involved in this program?
- What is your role in the YES Initiative? Has that changed since the beginning?
- What are other organizations doing on this intervention?
- How well do you think the intervention is going?

Inner and Outer Settings

- What resource are being supplied from your organization (people, time, physical, other)?
- Have you experienced any challenges within your organization (policy, process, etc)?
- How have you worked with the other organizations/people on this project in the past?
- How well are the organizations/individuals working together on this intervention now?

Individuals Involved in the Intervention

- How well do you think the participants of this intervention are being served?
- What are some challenges that you have experienced with the participants?
- What are some highlights of working with the participants?

Implementation Process

- How well do you think this intervention is being implemented?
- What has been some overarching challenges of this intervention?
- What has been some highlights of this intervention?
- What have you/your organization learned from the process of implementing this intervention?
- If you could go back, what would you change?

Figure 2. BASELINE INTERVIEW QUESTIONS

The first step in the interview process was coming up with a script to ask each participant. There were four categories that the questions were divided into. Those categories were characteristics of the intervention, inner and outer settings, individuals involved, and implementation process. Next, interviewees were contacted to set up times to conduct the interviews. Those interviews were recorded and saved through the application Zoom. They were then imported into NVivo and converted into files the program could use. The following step was creating the codes, themes, and relationships. Coloring each one was optional but made codes easier to distinguish. The files had to be fixed and cleaned up before they could be coded. The next step was to go through each interview and write down statements that had value. Each interview was then color coded and categorized into the appropriate node. The final step was to review all the coded information, analyze it and draw conclusions.

Results

There were six themes concluded from the process evaluation. The overarching theme from the research was Building Organizational Capacity. The encompassing themes were Communication, Focus, Implementation, Organizational Strengths, Partnerships, and Time Management. The Building Capacity node had three aggregate codes that were used to reference back to it, or children nodes. The children nodes were micro, meso, and macro. Micro was the individual, meso was on the organizational level, and macro was the community level.

Organizational Strengths

Organizational strengths was one of the strongest themes identified in the interviews. The aspect that helped implementation the most was the fact that each organization knew how to use their strengths. UMKC were proficient in research and data analysis, KC Parks and Recreation were great at engaging the children with different sports activities, and Truman Medical Center was able to offer use of the mobile market which aided in the nutrition aspect of the program. As implementation occurred they naturally relied on each other's strengths and it made logical sense to do so. Working with professionals they were familiar with, who were able to work in the field they were confident in, seemed to bring more meaning to the intervention. The organizations involved were able to effectively use their strengths which strengthened the capacity to do work and gave way for more opportunities to achieve the intervention's objectives. In this theme individuals reported that, "We brought everything together and everyone, it brought more value," "For this project, I think we all relied on each other's strengths," Our relationships within this team

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are super strong and super valuable.” and “We were very fortunate to include all these different partners and utilize their strengths in it.”

Communication

Communicating between organizational groups posed a challenge. Every facet of the intervention worked well except for when it came to reporting and supplying information to each other. In the beginning there was not a need to communicate about roles and tasks. The understanding that each group was responsible for their own part of the intervention was clear. However, setting meeting times and sticking to them, coordinating schedules to meet, and delays in communication between groups became an issue. Codes under the communication mother node were statements such as, “I think there’s definitely communication gaps.”, “Just some delays and communication issues.”, “Little gaps.”, “We felt like we were having delays in communication”, and “Finding a time that works for everyone to get to the same place or on the same phone call or anything like that is challenging.” These are important statements because it shows that the organizations were aware of the issues and were actively trying to fix them.

Implementation

The intervention was operating successfully if it fit the needs of its target population to achieve its desired outcomes. Effective program implementation can provide evidence of sustainable practices in childhood obesity prevention. The consensus was that implementation was going as well as it could have. The aspects each organization brought to the project worked but there were a lot of obstacles that deterred with the capacity to do work. Getting into the middle

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schools and working with the public-school system stalled a lot of implementation. Issues with grant management, staffing, and resources made programing difficult. Codes in the implementation theme were. “We have faced school issues. I think that’s one of the major issues we’ve faced so far,” “Challenges in snow days to school cancellations,” and “Going into the schools is challenging... it takes a long time to build those relationships.”

Focus

From the development of the intervention to the actual implementation of the program, the focus remained on physical activity. Nutrition and health education were also supposed to be important factors in this intervention. Individuals identified as the program progressed, there was a shift in focus. Physical activity of middle schoolers was the target intervention and nutrition education became supplementary. Trying to focus on two main forms of prevention takes away from the quality of both. Individuals stated, “I think nutrition education is an afterthought”, “There was a decreased ability to be successful”, and “We are throwing nutrition as an afterthought.” This theme was an important factor because it showed that outcomes can be impacted when there is not a clear focus in implementation. If every group involved is not clear on what the target focus is, challenges are bound to erupt. Within the *Characteristics of the Intervention* portion of the interview there are questions asking the opinions on how they thought the intervention was going. The answers were compiled into the theme focus because the responses gave way to them being really happy with the way implementation was occurring. Those question gauged the personal perspectives of each interviewee. The focus of the program, despite the shift, was being executed in a way that worked for everyone involved. Additional codes for this theme consisted of the

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statements, “We’ve learned so much in the six months of this project, “We are really happy with our role,” and “In the future we will be so much better prepared.”

Partnerships

The interviewees made it very clear that they were proud of the team they put together and believed that they worked well together. Building better partnerships leads to the development of more productive and sustainable partnerships. To effectively develop, implement, and sustain healthcare programs means to establish meaningful partnerships between healthcare organizations, governmental health departments, school systems, and community stakeholders (Robert Wood Johnson Foundation, 2015). There are a lot of theories that discuss in the ways that teams work and how they can produce more favorable outcomes (Institute of Medicine (US) Committee, 2004). Collaboration in terms of public healthcare was essential for increasing intervention success and building capacity. The lack of mutually benefiting partnerships has inhibited collaboration in all fields of health (Robert Wood Johnson Foundation, 2015). Effective team performance, how it’s created and nurtured, and how it directly and indirectly influences implementation has a big impact on program results (Bosch & Mansell, 2015). This was important because without these partnerships, future prevention efforts for childhood obesity could cease to exist. Interviewees reported that, “I love our team. I love the people on it, I love that,” “I love the partnerships and the alliance with organizational priorities,” and “We have great partners.”

Time Management

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This theme was about the organizations wanting to be the most effective in investing their time in tasks and parts of the intervention that would yield the greatest quality of outcomes. The submission and awarding of the grant happened very rapidly. Connecting each organization and assigning tasks was quick as well because of time constraints. It was evident that there was a rush in time but a delay in implementation due to communication issues. The codes for time effectiveness were, “It was such a short time period,” “We were kind of in a rush,” and “Due to time constraints some things had to be rushed.”

Discussion

The results of the evaluation demonstrated the intricacies of this project and why each theme was important. While each theme was significant, the themes communication, organizational strengths, and implementation were fundamental according to the responses of the interview. Conducting a process evaluation on an intervention allows researchers to look at how the program itself develops, supports the community and gets the outcomes everyone wants to achieve. This evaluation would help stakeholders see the type and quality of the services being delivered, beneficiaries of those services, practical problems encountered, and how those problems were solved (TSNE MissionWorks, 2018). This matters in terms of public health outcomes because the information gathered was useful in understanding how outcomes can be achieved for this program and how they can be applied to a broader population. Following the framework used for the study, CFIR, evaluating the inputs is just as important as evaluating the outcomes. This helped determine how successfully the YES intervention followed the strategy and logic model they set for the program. This was significant because this provided researchers with a successful

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example of how CFIR was used in a public health intervention. The results from the YES intervention can help bridge those gaps when it comes to implementation science and physical activity.

There were some limitations to this process evaluation. Baseline interviews were conducted, and those results were collected and analyzed. However, 3-month follow-up interviews will not be conducted. Due to the COVID-19 pandemic, implementation had to halt. Data was no longer being collected and implementation stopped occurring. Social distancing laws began to be put in place which made it difficult to conduct the intervention. Groups of no more than 30 people were to be in the same room and it caused major restrictions in the program. Eventually the Kansas City School district closed the middle schools for the remainder of the school year. Continuing the intervention was no longer an option. Outcomes from the first round of implementation and their comparisons to the rest of the program will be skewed. There is no way to see if the strengths and weaknesses pointed out will be addressed and fixed. The results from the first months of the intervention will not be enough to determine if the YES intervention was a success. Researchers will not be able to say they completed every objective for the program, and that is one of the greatest limitations of the study.

Strengths of this program is the current findings are easily generalizable. What worked in the beginning of the program can be taken as lessons and reapplied when the intervention resumes. They will be able to fix parts of the intervention that seemed to be lacking and make them better. The program is very well designed and based on the interviews; implementation was great. The cost of collecting data and conducting interviews was minimal. This gave way to resources being put into other parts of the intervention where it was needed. When the intervention resumes,

focusing on the themes that stood out the most during the interview will make the second round of implementation better.

Conclusion

Implementation science is a field of public health that is emerging despite the slow adaptation of strategies and lack of effective measurement tools. Implementation science studies use methods to adapt and use evidence-based interventions in targeted settings to sustain improvements to population health (Lobb & Colditz, 2013). This program had the potential to create sustainable behaviors and promote longevity. The codes and themes from the process evaluation would help determine the quality of implementation and the areas of improvement. For public health to progress and adopt new methods in the realm of childhood obesity prevention, providing alternative ways of increasing physical activity and introducing healthy eating habits is of importance. When looking to implement this kind of intervention, it's important that researchers focus on communication, organizational expertise, and program implementation design.

References

- Barr-Anderson, J. D., Young, R. D., Sallis, F. J., Neumark-Sztainer, R. D., Gittelsohn, J., Webber, L., Saunders, R., Cohen, S., & Jobe, B. J. (2007). Structured physical activity and psychosocial correlates in middle-school girls. *Preventative Medicine*, 44(5), 404-409. <https://doi.org/10.1016/j.ypmed.2007.02.012>
- Brownson, R. C., Fielding, J. E., & Green, L. W. (2018). Building Capacity for Evidence-Based Public Health: Reconciling the Pulls of Practice and the Push of Research. *Annual review of public health*, 39, 27–53. doi:10.1146/annurev-publhealth-040617-014746
- Centers for Disease Control and Prevention. (n.d.). Childhood Obesity Facts. Retrieved April 23, 2020, from <https://www.cdc.gov/obesity/data/childhood.html#Prevalence>
<https://doi.org/10.1186/s12916-019-1322-9>
- Chang, S. H., & Kim, K. (2017). A review of factors limiting physical activity among young children from low-income families. *Journal of exercise rehabilitation*, 13(4), 375–377. <https://doi.org/10.12965/jer.1735060.350>
- Gao, Z., Newton, M., & Carson, R. (2020). Students' Motivation, Physical Activity Levels, & Health-Related Physical Fitness in Middle School Physical Education.
- Human Research Protection Program, Institutional Review Board. (n.d.). What is the Institutional Review Board (IRB)? Retrieved February 19, 2020, from <https://research.oregonstate.edu/irb/frequently-asked-questions/what-institutional-review-board-irb>
- Institute of Medicine (US) Committee. (2004). *Keeping Patients Safe*. Washington (DC): National Academies Press (US)

PROCESS EVALUATION ON THE YES INTERVENTION

- Kearns, N., Kleinert, J. O., & Dupont-Versteegden, E. E. (2019). Implementing Multilevel School-Based Physical Activity Interventions Using Core Implementation Components Model. *Journal of School Health*, 89(5). <https://doi.org/10.1111/josh.12750>
- Keith, R.E., Crosson, J.C., O'Malley, A.S. et al. (2017). Using the Consolidated Framework for Implementation Research (CFIR) to produce actionable findings: a rapid-cycle evaluation approach to improving implementation. *Implementation Sci*, 12(15). <https://doi.org/10.1186/s13012-017-0550-7>
- Kirk, M., Kelley, C., Yankey, N., Birken, SA., Abadie, B., & Damschroder, L. (2016). A systematic review of the use of the Consolidated Framework for Implementation Research. *Implementation Science*, 11, e72. <https://doi.org/10.1186/s13012-016-0437-z>
- La Trobe University. (2020). NVivo 12 for Windows. Retrieved April 13, 2020, from <https://latrobe.libguides.com/NVivo12>
- Livingood, W. C., Bilello, L., Lukens-Bull, K., Smotherman, C., & Choe, U. (2020). Implementation Research as Applied Science: Bridging the Research to Practice Gap. *Health Promotion Practice*, 21(1), 49–57. <https://doi.org/10.1177/1524839919858082>
- Lobb, R., & Colditz, G. A. (2013). Implementation science and its application to population health. *Annual review of public health*, 34, 235–251. <https://doi.org/10.1146/annurev-publhealth-031912-114444>
- Moore, G., Audrey, S., Barker, M., Bond, L., Bonell, C., Cooper, C., ... Baird, J. (2014). Process evaluation in complex public health intervention studies: the need for guidance. *Journal of epidemiology and community health*, 68(2), 101–102. doi:10.1136/jech-2013-202869 (article)
- Naylor, P.-J., Nettlefold, L., Race, D., Hoy, C., Ashe, M. C., Wharf Higgins, J., & McKay, H. A.

PROCESS EVALUATION ON THE YES INTERVENTION

- (2015). Implementation of school based physical activity interventions: A systematic review. *Preventive Medicine*, 72, 95–115. <https://doi-org.proxy.library.umkc.edu/10.1016/j.ypmed.2014.12.034>
- Robert Wood Johnson Foundation. (2015, February 26). Culture of Health Blog. Retrieved April 20, 2020, from https://www.rwjf.org/en/blog/2015/02/the_secret_to_succes.html
- Safaeninili, N., Brown-Johnson, C., Shaw, J. G., Mahoney, M., & Winglet, M. (2019). CFIR simplified: Pragmatic application of and adaptations to the Consolidated Framework for Implementation Research (CFIR) for evaluation of a patient-centered care transformation within a learning health system. *Learning Health Systems*, 4(1). <https://doi.org/10.1002/lrh2.10201>
- Saluja, S., Silverstein, A., Mukhopadhyay, S., Lin, Y., Raykar, N., Keshavjee, S., Samad, L., & Meara, J. G. (2017). Using the Consolidated Framework for Implementation Research to implement and evaluate national surgical planning. *BMJ global health*, 2(2), e000269. <https://doi.org/10.1136/bmjgh-2016-000269>
- Steckler, A., & Linnan, L. (2002). Process evaluation for public health interventions and research (A. Steckler & L. Linnan (Eds.)). Jossey-Bass.
- TSNE MissionWorks. (2018, June 14). Process Evaluation vs. Outcome Evaluation. Retrieved April 20, 2020, from <https://www.tsne.org/blog/process-evaluation-vs-outcome-evaluation>
- Wensing, M., & Grol, R. (2019). Knowledge translation in health: how implementation science could contribute more. *BMC medicine*, 17(1), 88. <https://doi.org/10.1186/s12916-019-1322-9>