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Evaluating the Feasibility of a Community Intergenerational Physical Activity Intervention for Kinship Families: Professional Stakeholders' Perspectives

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Over the past 30 years, the number of grandparents who are raising grandchildren has increased (Dolbin-MacNab & Traylor, 2016; Lugaila, 1998; Simmons & Dye, 2003; U.S. Census Bureau, 2011). This increase is due to a variety of factors including parental child abuse, neglect, drug abuse, economic hardship (Taylor, Livingston, Wang, & Dockterman, 2010), divorce, and death (Gleeson, et al., 2009). Many older adults who are raising grandchildren suffer from chronic illnesses and functional limitations that are exacerbated by the stress of caregiving (M. Minkler & Fuller-Thomson, 2005; Whitley, Kelley, & Sipe, 2001). Unfortunately, due to their caregiving responsibilities, grandparents are oftentimes unable to engage in healthy behaviors such as physical activity, which may mitigate health issues (Hughes, Waite, LaPierre, & Luo, 2007; Roe, Minkler, Saunders, & Thomson, 1996).

Similarly, the grandchildren in these kinship homes often suffer from chronic illnesses (Jones, Chipungu, & Hutton, 2003; Kemp, 2010; Rubin, Springer, Zlotnik, Kang-Yi, & Council on Foster Care, 2017) such as obesity and asthma (Dubowitz, et al., 1992). Often, these illnesses are positively impacted by modifiable health behaviors such as physical activity. Although there is a lack of literature examining healthy behaviors such as physical activity among grandchildren in kinship households, there is evidence that children in

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Conflict of Interests

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general are not obtaining the recommended 60 minutes of daily physical activity (U.S. Department of Human Health Services, 2009). Thus, interventions addressing both the grandparents' and grandchildren's health are warranted.

Researchers have developed a few interventions that address the physical health problems of grandparents involved in kinship care (Bigbee, Boegh, Prengaman, & Shaklee, 2011; Kelley, Whitley, & Campos, 2012; Kicklighter, et al., 2007). However, there is a paucity of physical activity interventions directed at improving the health of the grandparent-grandchild dyad. Intergenerational interventions would be valuable due to the potentials benefits for both generations. In fact, the American Heart Association Subcommittee on Physical Activity, the Council on Cardiovascular Disease in the Young, and the Interdisciplinary Working Group of Quality of Care endorsed intergenerational approaches as a means to address family and community health concerns (Marcus, et al., 2006). Researchers illustrate the health benefits of intergenerational interventions on older adults and youth. For example, older adults engaged in these interventions have seen improved physical (Barron, et al., 2009; Weintraub & Killian, 2009), cognitive (Carlson, et al., 2009; Carlson, et al., 2008), and social well-being (Fried, et al., 2004; Loe, 2013). Youth-focused intergenerational health promotion interventions have decreased youth's obesity risk and increased their physical activity levels (Sacher, et al., 2010; Werner, Teufel, Holtgrave, & Brown, 2012). Parents' modeling of positive health behaviors increases similar behaviors in their children (Madsen, McCulloch, & Crawford, 2009). Thus, it is reasonable to expect that grandparents in parenting roles may have a positive effect on their grandchildren's health behaviors and may simultaneously impact their own health by participating in health promotion intergenerational interventions. Given this evidence, there is a need to develop intergenerational health promotion interventions in the context of grandparents raising grandchildren. However, it is also important to investigate the feasibility of these interventions to maximize their efficacy and sustainability in the community.

Feasibility Studies on Intergenerational Interventions

Feasibility studies are used to determine the sustainability and readiness of interventions for further testing (Bowen, et al., 2009). These studies play a critical role in translational research to determine if, and how well, studies conducted in controlled environments can be translated to unpredictable community settings. However, understanding if an intervention is ready for widespread dissemination is not the only use for a feasibility study. These studies can be implemented in a variety of research contexts (e.g., formative, process, and outcome) to increase intervention knowledge and determine improvements. In a feasibility framework presented by Bowen et al., (2009), the researchers present eight components of feasibility: demand, acceptability, practicality, integration, limited efficacy testing, implementation, adaptation, and expansion (see Table 1 for details). Depending on the study, the authors noted some components might not be relevant. In addition, researchers may use other facets of feasibility such as follow-up rates, response rates, and intervention compliance (Arain, Campbell, Cooper, & Lancaster, 2010; Whitehead, Sully, & Campbell, 2014).

Bowen's framework can provide valuable insight to researchers. For example, Cené et al. (2013) used the framework to determine the feasibility of implementing a community-based

participatory research (CBPR) diabetes prevention education curriculum in rural African American communities. Using the feasibility framework, the researchers determined the curriculum was a useful resource for lay health educators who educate individuals affected by or at risk for diabetes. The framework also helped the researchers identify that educators should assess and prepare for potential issues related to participants' literacy levels (Cené, et al., 2013).

Han and colleagues (2015) illustrated the advantages of using Bowen's framework. They used the framework to determine whether the Wellness Pathway, an intervention that engages healthcare providers and community-based organizations in healthcare coordination for older adults, was feasible and scalable for future implementation. The results of this feasibility study illustrated the potential of the intervention to improve the lives of older adult patients, but noted it suffered from insufficient patient recruitment and healthcare provider and staff involvement (Han, et al., 2015). Both Cené et al. (2013) and Han et al. (2015) illustrate the appropriateness and advantages of applying Bowen's framework in determining the feasibility of community-based innovations. Thus, Bowen's framework may be a suitable tool to ascertain the feasibility of community-based intergenerational interventions.

Understanding Feasibility from Professional Stakeholders

In general, there is a lack of literature exploring the feasibility of intergenerational interventions. One of the few available studies on this topic was conducted by Perry and Weatherby (2011), who implemented a CBPR tai chi intergenerational intervention to increase youth and older adults' physical activity. In addition to assessing outcomes, the researchers examined the feasibility of the intervention in regards to its practicality, acceptability, and participant satisfaction. The nuanced information captured about the participants' satisfaction level, intervention, and intergenerational interactions illustrate the dynamic data that can be obtained from a feasibility study. Perry and Weatherby's study examined feasibility from the perspectives of the youth and older adults. However, lacking from the study were the perspectives of important stakeholders such as the professionals who implemented the intervention.

As previously mentioned, there is a paucity of feasibility studies in intergenerational research and that gap extends to understanding feasibility from the perspectives of professional stakeholders. Nevertheless, researchers across various disciplines have documented the importance of garnering professional stakeholders' perspectives in implementing interventions (Ebi, Kovats, & Menne, 2006; Ganter, et al., 2016; Melchior, et al., 2000). For example, the Massachusetts Childhood Obesity Demonstration Project, a multi-level, multi-sector intervention aimed to reduce childhood obesity in low income communities, interviewed school principals, medical directors, teachers, and education staff. Findings from these key stakeholders suggested a need for increased physical activity time and healthier food choices in schools (Ganter, et al., 2016). Similarly, Morton and colleagues (2017) included educators, physical activity and public health stakeholders in a Delphi process to prioritize intervention strategies for a project focused on promoting healthy behaviors among children. The stakeholders ranked teacher-facilitated interventions,

extending school physical activity time, and having active classroom lessons as top intervention strategies to reduce sedentary behavior and promote physical activity (Morton, et al., 2017). In both projects, the researchers noted the value added to the interventions and future research by obtaining stakeholders' perspectives (Morton, et al., 2017). These examples illustrate how stakeholder's view help to enhance the study development and implementation.

Stakeholder insights also have important implications for intervention sustainability as noted in Han et al., (2015) evaluation of the previously mentioned Wellness Pathway intervention. In addition to acknowledging recruitment and engagement issues, Wellness Pathway stakeholders also noted the intervention's positive impacts on the older adults and suggested the program should be continued (Han, et al., 2015). This example illustrates how the stakeholder's input can identify concerns, but also highlight strengths that signal the intervention should be sustained.

Professional stakeholders' viewpoints in formative and outcome evaluations are integral to organizational buy-in of new interventions. As adapters and adopters of interventions, it is crucial that we understand stakeholders' perspectives to enhance the quality of interventions. More specifically, stakeholders provide critical details and views about how successes and challenges associated with developing and implementing an intervention may impact its efficacy and sustainability in the community. Therefore, it is important we obtain the perspective of professional stakeholders who are integral to intergenerational interventions to understand how to develop, implement, and sustain efficacious interventions for grandparents and grandchildren.

Purpose of the Study

Grandparents and their grandchildren are at risk for poor health outcomes (Rubin, et al., 2017). A intergenerational physical activity intervention where these dyads engage in physical activity together is one approach to address their health issues. Our understanding of intergenerational interventions in the context of kinship caregiving is hampered by a lack of literature exploring implementation, feasibility, and professional stakeholders' perspectives. Therefore, Bowen's feasibility framework was used to understand the demand, acceptability, practicality, and integration of an eight-week physical activity intervention for kinship families from the perspective of the professional stakeholders who implemented the intervention.

Method

Study Design

CBPR approach.—CBPR is characterized as a collaborative approach to research utilizing all potential research users and other community stakeholders to bring forth issues that define community needs and the research focus. In addition, these individuals are involved in the development, implementation, and sustainability of the research and establishment of equitable partnerships (Green & Mercer, 2001; Meredith Minkler & Wallerstein, 2008). The inclusive and comprehensive nature of CBPR can help to elucidate

the dynamic and multifaceted nuances of intergenerational interventions and their potential impact on health outcomes.

Using seven of the nine CBPR principles (i.e., acknowledge the community, build on community strengths and resources, create equitable partnerships, co-learning, address health concerns, engage community members in phases of the research, remain committed to the relationship over time) (Israel, Schulz, Parker, & Becker, 2001), the researchers captured diverse perspectives to develop an intergenerational intervention that addressed the health of kinship caregivers and determined its feasibility.

Over the course of three years, we built partnerships with a community in a small city along the Southeastern coast of the United States. We initially met with the manager of a recreation center whose goal was to develop aging programs in the community. The manager specifically suggested a small, predominantly Black community within the city that would be suitable for a potential collaboration. This was supported by a needs assessment completed in 2008 that cited a lack of programs for older adults as a major issue in the community. The recreation manager referred us to community stakeholders, gatekeepers, and a community committee to ascertain the issue the community wanted to address through this CBPR project. The stakeholders and gatekeepers determined they wanted to address health issues by developing a physical activity intervention.

A community *Strengths, Weaknesses, Opportunities, and Threats Analysis* conducted by the city during the 2008 needs assessment listed kinship caregiving as a weakness and an opportunity. Therefore, as a collective, we decided the intervention would target the kinship population. We met with the Community Leadership Committee and learned that they preferred the implementation of a physical activity intervention as well. They felt that health issues in the community needed to be addressed, and they particularly expressed their satisfaction with the potential integration of an intergenerational component to the study. While the framework for the study was under development, we demonstrated commitment to the community by attending community events, volunteering expertise, and maintaining contact with stakeholders and gatekeepers. Once the study was developed and approved by the university's internal review board, we contacted the stakeholders and gatekeepers to begin recruiting potential participants. The recreation center personnel helped facilitate the intervention, and the center was the venue for the study.

Once the grandparents were recruited for the study, they also became a part of the CBPR process. These adults decided the type of intergenerational physical activity they wanted to participate in with their grandchildren as well as its logistics. Once the physical activity intervention was implemented, the grandparents continued to be involved as stakeholders. In fact, we routinely asked the grandparents, health professionals, recreation staff, and manager about their satisfaction level to identify areas for improvement throughout the duration of the intervention. We took notes of their recommendations and adapted the intervention accordingly. We will only focus on the perspectives of the professional stakeholders who implemented the intervention in this article.

Participants

Sample.—The professionals ($N=9$) who implemented the intervention (i.e. recreation manager and staff ($n=2$), physical activity instructors ($n=2$), and health professionals ($n=5$) were asked to participate in this study because of the impact they had on decision-making and intervention feasibility from an organizational level. The recreation manager and staff organized the intervention sessions. The physical activity instructors facilitated the physical activity intervention. The health professionals assessed the grandparents' health indicators.

Procedure

Recruitment.—We developed a relationship with the community two years prior to the start of data collection and were able to make connections with community partners during this time. These partners were eligible to participate if they helped to facilitate any phase of the research study. The established partners – recreation center staff and manager, health professionals & physical activity instructors facilitated various components of the intervention. Therefore, they were recruited to complete a survey and participate in focus groups or in-depth interviews (depending on availability) to assess intervention feasibility during Phase 3 of the study. Prior to participating in the study, the professionals provided written informed consent.

Study phases.—The study took place in three phases: Phase 1 (development), Phase 2 (intervention), and Phase 3 (follow-up). During Phase 1, the grandparents were provided three physical activity options (Zumba®, African Dance, and Line Dancing). They choose Zumba® a dance fitness program as the intervention, and in Phase 2, the 8-week intervention was implemented. The nurses assessed the grandparents' health indicators (i.e. blood pressure, BMI, and balance) during Phase 2 at three different time points. In Phase 3, focus groups were conducted to understand the grandparents' perspective regarding the intervention. Also in Phase 3, interviews and focus groups were conducted with the professionals to assess their experience in the study. Refer to Young and Sharpe (2016) for specific details about the intervention. This article will only focus on the professionals' experiences garnered in Phase 3.

Qualitative Measures

Focus groups and interviews.—It was important to understand the experiences of the recreation staff and manager, health professionals, and exercise instructors' while participating in the intervention. Furthermore, it was necessary to appraise the feasibility of the intervention (i.e., acceptability, demand, practicality, and integration) from their perspective. The in-depth, exploratory, and descriptive nature of focus groups and interviews was the best approach to capture the professionals' perspectives. Therefore, in both focus groups (health professionals and instructors) and interviews (recreation staff and manager), a set of open-ended questions were used to evaluate their experiences in the facilitation and feasibility of the intervention. A sample question asked was, "*What could we do to make these interventions sustainable?*" Table 2 displays the general questions posed for each component and the associated data source(s) used to address the questions in the study.

At the conclusion of each focus group and interview, the moderator reviewed and summarized the information provided by the participants and asked for comments regarding the accuracy of the summary to obtain clarity or any additional information for credibility purposes. Two one-on-one interviews and two focus groups were conducted. All focus groups and interviews were audio-recorded and transcribed verbatim. A research assistant listened to the audio-recordings and read the transcripts to ensure transcription accuracy.

Quantitative Measures

Demographic Surveys.—During Phase 3, demographic data was collected from the recreation staff member and manager, Zumba® instructors and health professionals. The data included gender, age, race, education level, role in the intervention, and the number of years they had been in their respective professions. They were also asked a question about intervention demand and level of intervention satisfaction.

Measures of feasibility.—Although most feasibility components were assessed using qualitative data, components of acceptability and demand were supplemented with quantitative survey questions. Acceptability was assessed from the professionals on a 5-point scale, ranging from 5(excellent) to 1(poor), with the question “*How would you rate your experience of assisting with the physical activity intervention?*” Demand was assessed from the professionals using a dichotomous yes or no question that asked, “*Do you believe there is a need for physical activity interventions that bring grandparents and grandchildren together to exercise?*”

Data Analysis

Qualitative.—We transcribed the focus group and interview data using verbatim f5 (Audiotranskription.de, 2014) transcription software. We exported data into Atlas ti version 6.2 (2014) for data management and coding and used direct qualitative content analysis to analyze the data. In general, content analysis is a systematic process of describing the meaning of qualitative data. In other words, qualitative content analysis focuses on summarizing the elements in the data versus creating theory or viewing the data in new ways (Schreier, 2012). Direct qualitative content analysis is a more structured and guided process than conventional content analysis because the researcher uses existing theory or prior research to identify key concepts as initial coding categories (Hsieh & Shannon, 2005). Qualitative content analysis was an appropriate method because it matched the goals of the study to understand the intervention within the context of an established feasibility framework.

We employed direct content analysis to code the data and created a codebook of themes based on the indicators of feasibility: demand, acceptability, practicality, and integration as illustrated by the outcomes of interest in the Bowen et al., article (2009). With the completion of the codes, the principle investigator and another research team member underwent a second round of coding. In this stage, they separately coded the transcripts, specifically focusing on the themes related to participants’ involvement and the implementation of the intervention. The coders compared their findings to determine if themes were applied consistently in the transcripts. There were two instances in which

similar themes appeared to address key aspects of separate domains. As a result, the domains were merged. Feasibility themes were also treated as mutually exclusive. If a unit of coded text seemed to fit into multiple themes within one domain, the team examined the text's context and operational definition of the domain and themes to determine the most suitable placement. There was one instance in which coders did not agree and the input of another research team member served as the tiebreaker.

Achieving trustworthiness.—Credibility was achieved by having a researcher from a different content area review the initial set of themes (coding frame) to ensure they aligned with the feasibility framework (Schreier, 2012). Dependability of the qualitative data was initially assured by providing a systematic protocol for the researcher to follow while conducting the focus groups. Furthermore, the principle investigator conducted all of the focus groups to ensure consistency in interview style and responsiveness from the participants. We assured dependability by having the principle investigator and a team member independently code the data. The coding was deemed dependable as both the principle investigator and team member similarly coded the majority of the text. Instances of disagreement resulted in consensus once the coders discussed the discrepancies and reviewed the domain and code definitions as well as the context of the quote.

Quantitative.—We entered the quantitative data into SPSS (Statistical Package for the Social Sciences) version 22 (IBM Corporation, 2013). The data from the professionals' demographic surveys were examined and descriptive analyses were used to triangulate feasibility (acceptability and demand) with the qualitative data.

Results

Participant Profile

Interview and focus group data were collected from professionals ($N=8$) consisting of the recreation manager ($n=2$), recreation staff, nurses ($n=4$), and exercise instructors ($n=2$) over a 2-week period in May 2014. One nurse was unable to attend data collection. Six participants attended 1 of 2 focus groups and two professionals completed an individual interview. The average age of these professionals was 51.6 with ages ranging from 32 to 64. The majority of the professionals were female ($n=7$) and White ($n=6$). The number of years these individuals had been in their respective fields ranged from 6 months to 43 years. All participants had a college degree or higher.

Feasibility Analysis

We assessed feasibility through data collected from the professionals at the conclusion of the intergenerational intervention. The domains associated with the information provided by the professionals were demand, acceptability, practicality, and integration (see Table 2). Ten themes emerged from the data: (1) perceived demand, (2) appropriateness, (3) satisfaction, (4) using existing resources or circumstances, (5) quality of intervention implementation, (6) barriers to participation, (7) facilitators to participation, (8) effects on participants, and (9) perceived fit with the organization, (10) perceived sustainability. We used the themes to further explicate the domains. We included quotes in the results section to illustrate each

domain and the accompanying theme(s). In addition, to protect the anonymity of participants, actual names are replaced with descriptors of the respondents.

Demand.—The majority ($N=8$) of the professionals indicated the need for a physical activity intervention that brings grandparents and grandchildren together to exercise in the community. This was supported in the qualitative data through the theme of “*perceived demand*.” During the focus group, the nurses discussed how the study highlighted the issues of grandparents involved in kinship care for them. They also talked about how and where the intervention could be expanded. “Maybe there is a role for something like this at some of our churches you know? Inter-, intergenerational activities...whether it be exercise or something else... crafts or whatever it is you know?” The recreation staff member also felt there is a demand for intergenerational interventions; however, he discussed the demand from an intergenerational solidarity perspective. He stated,

You have the ah, generation gap is a, tough ah, tough one to close. So um, I think it’s important to, to try to at least get people to understand the other, the other’s perspective... because they really do live in two different worlds, but, in another sense it’s all one world, so... gotta get along.

(Male, 1.5 years as recreation staff)

Acceptability.—The prevalent themes that emerged related to acceptability were appropriateness and satisfaction.

Appropriateness.—All of the professionals felt the intervention was appropriate for the population for various reasons. The recreation manager commented, “...I think that it was the right class, I think it was the right exerc-, it was the right type of exercise...” (Female, 8.5 years as recreation manager) While the nurses made comments about the relevance of the intervention, they also noted how the health measures used in the intervention were comprehensive and appropriate considering aspects of time, efficiency, and relevancy. The most frequently stated reason for the intervention being appropriate was because it allowed grandparents and grandchildren to exercise together and ward off future health conditions while jointly addressing current health issues. The assistant Zumba® instructor made a comment that addressed both points. She stated,

And, um, again having grandparents and grandkids, same place, same location, boom... everybody’s there. It eliminates, it makes life easier and... for them to be able to exercise, you know, and everybody benefits. The grandparents from, um, it lowers their risk on different medical conditions that they can develop. Same with the kids... um, because kids are now gettin’ stuff that older people used to get.

(Female, 6 months as Zumba® instructor)

Satisfaction.—Satisfaction was assessed in the professional follow-up survey. All of the professionals rated their experience as excellent. The qualitative data provided additional evidence supporting their level of satisfaction. In general, the grandparents and grandchildren exercising together inspired the professionals. They made comments like: “I loved seeing the g-, the grandmoms, and the kids, all together, all movin’ to the music,

havin' fun, havin' exercise, interacting in a really positive, upbeat way..." (Female, 33 years as a nurse) and "...the fact that you did this program at the same time with the children and the adults..." (Female, 8.5 years as recreation manager) illustrated the professionals' affinity for the intergenerational facet of the intervention.

The recreation manager provided an example related to intervention design and families exercising together,

Um, I liked that the program was so beautifully designed... and, um, to watch them respond as they did, and keep coming back, I mean, that was just amazing, and also, I, I really liked the dynamic of the multi-multiple generations in the room. That was um, just delightful

(Female, 8.5 years as recreation manager)

The professionals recognized the multiple health needs of the grandparents and discussed being pleased with the health benefit the grandparents received while participating in the intervention. For example, the recreation manager stated,

"I was very pleased with the outcome of the program. I was delighted that, um, I was very happy that it seemed that many of the grandparents may have experienced a health benefit, whether it was stress reduction or actual physical changes that were a benefit to them, or that they, um, are sleeping better..."

(Female, 8.5 years as recreation manager)

The assistant exercise consultant discussed how she was pleased the grandparents were making healthy choices.

...they said they were enjoyed it [the intervention] and had started talking about making changes in their lives through nutrition and more water... and I was like, "Alright, they're moving towards better health." And so, I thought that was pretty awesome.

(Female, 6 months as a Zumba® instructor)

While the professionals did not explicitly mention any dissatisfaction, they did discuss different components that could be added to enhance the intervention. The exercise instructors and nurses discussed adding a nutritional component to the program. The assistant instructor suggested introducing nutrition into the intervention in small doses. The nurses made similar comments and discussed how education on sodium or label reading would be a great addition to the intervention. The nurses also felt that including a spiritual component would be helpful to the grandparents. One nurse commented,

I think having ah, more of an emphasis or opportunity, to s-, to do intentional care of the spirit, to maybe help them foster whatever their spirituality is... help them foster, 'cause I I think in this particular group... the, the stress and challenges of what they're doing, I would imagine would be pretty amazingly difficult. And um, I, I it would be interesting to explore more their... their coping, their spiritual coping. If they have any... you know?

(Female, 33 years as a nurse)

Practicality.—The professionals made numerous comments regarding the practicality of the intervention. Five themes supported practicality: using existing resources or circumstances, quality of the intervention implementation, barriers to participation, facilitators to participation, and effect on participants.

Using existing resources or circumstances.—The assistant exercise consultant had just started teaching Zumba® classes within the last 6 months. Her story is special because it was through diet and Zumba® that she lost over 100 pounds. Thus, many of the professionals commented on how she added value to the intervention by being a relatable testament to the grandmothers. For example, the leading instructor commented,

...and they, The Center, I think they add value with, we have with [the assistant exercise consultant] is that, you know, they have a like perfect example that if you change your eating habits and your exercise habits, you can lose it. So, it was an added value.

(Female, Zumba® instructor for 5 years)

The nurses reinforced this statement and agreed that this instructor was a great role model for the grandparents.

Quality of intervention implementation.—The nurses commented that the project was thoroughly organized, and the recreation manager stated how the intervention was well designed. In addition, the recreation manager also noted why she felt the intervention was high quality. She stated, "...we were fortunate because we had a very dynamic lead instructor who could work through those issues of multi-, multiple generations in a class and, and I think that was challenging, but she effectively did that..."

Barriers to participation.—The professionals commented on the barriers affecting their roles in the intervention as well as perceived notions of barriers for the grandparents and grandchildren. The nurses did not discuss any barriers related to performing their specific roles in the intervention. The instructors commented on many barriers experienced while implementing the Zumba® intervention. Many barriers related to the challenges of providing a multigenerational class to individuals with diverse abilities. For example, the lead instructor spoke about the health challenges that influenced their instruction. One instructor commented,

...the other challenges were, some of the grandmas have some difficulties. You know, so like... you know so like, bad knees and some... other grandma that was having problems with the back... back and the hips. So... you know... too, it, it was challenging, 'cause you cannot do anything that would hurt [the] par-, participant.

Another issue the lead instructor discussed was the attention issues displayed by the children and the exhaustion the grandparents experienced,

...they don't go more than 45 minutes. Because the elders get tired and the children's, their attention span... is you know, they, they like to do something, but if they get bored... they jump to another thing. So then, when we were doing one

hour... you know like the last 20, 15 minutes of the class they were like doing whatever...

Facilitators to participation.—The professionals were asked to comment on facilitators factors that affected their roles. Specifically, the nurses commented on the organization of the study. All professionals commented on the perceived notions of facilitators for grandparents. One of the exercise instructors commented on how the intervention allowing for the inclusion of the whole family was a compelling component that facilitated participation. The recreation manager discussed the research process and how that might have affected the grandparents' participation level. She stated,

...I think the one motivator we haven't really explored or talked about is the fact that they were a part of research... and that component that they were a part of something bigger than themselves, whether it was a part of ah, um generativity or... wanting to leave a lega-legacy or something, I'm not quite sure, but that, I've, I've found really intriguing and to me that was shown because they kept coming...

Effects on the participants.—The professionals provided information on the effects the intervention on a personal level and the perceived effects the intervention had on the participants. The exercise instructor and the recreation manager commented on the improved attitude changes among the grandparents and grandchildren regarding exercise. The quote below illustrates the recreation manager commenting on attitudes and health changes. Specifically, she said,

...I saw improved affect among the grandparents... um, and somewhat with the teenagers. The younger ones were just, lovely all the time, laughing, and happy, and bouncing off the walls, and a real delight. So... I didn't see a dramatic change in them. Um, they all improved their dancing abilities in Zumba® which, um, was wonderful and in my um, review of the biometric measures as it relates to, to, my limited review of the biometric measures and my anecdotal conversations with the grandparents, they all seemed very pleased that they, um, had either lost weight, had, had reduced, um, blood pressure to a more healthy um, range or were sleeping better...

On a similar note, a nurse commented on the health journals provided to the grandparents and grandchildren and how she noticed the kids being excited about health. She stated,

I, I had an encounter with a little boy and it was like, he was so proud that he had his own little journal. So, I think that was great, that you gave the kids their own little passports to health too and that they could record their progress and even though he didn't change his weight, he did grow an inch. And, he was like so proud of that and he had me write it all in for him...

(Female, 32 years as a nurse)

The lead instructor discussed how they felt the education experience within the intervention affected the families,

...but, but then you know they kind of learn and have fun with this, they did. You know? They did and then, kind of discover that it's, it's not only this is speaking English music... there is like, so much music out there...

Being part of the intervention had an effect on the professionals as well. The lead exercise instructor commented on learning to become a coach and teaching her assistant how to instruct the class, due to a foot injury that occurred while the intervention was held. Being part of the intervention was a learning experience for the nurses as well. One nurse commented,

...it made me wonder, um, as to whether, first of all, it opened my eyes even more to this situation with grandparents raising children. You know, and... 'Grandparents' Out', or, you know, it just got me thinking about, I wonder if this is something that can be parlayed? Or, talked about? And we do plan, when you give us, you know, s-, ah, like a summary of things; we do plan on putting it in our newsletter and maybe even talking about it ah, with our nurses, just to plant a seed. In case, and get them thinking... like it's [the intervention] got us thinking...

(Female, 33 years as a nurse)

Integration.—Quotes from the professionals supported themes such as perceived fit with the organization and perceived sustainability.

Perceived fit with the organization.—In regards to integration and the intervention being a good fit for The Center, the nurse stated, "Well, I'll tell you, I thought, I thought it was great doing it where you did it because, I think The Center is very receptive to offering things that people want..." The recreation staff member concurred suggesting the intervention could be easily integrated into The Center; the set-up is essentially no different from the programs already offered. Specifically, he commented, "I think, this event from my perspective, materially, isn't any different than setting up for a talk on, the ins and out of condos, or a journaling class, it's all... part of [it], comes with the territory..." (Male, 1.5 years as recreation staff member)

Perceived sustainability.—All of the professionals had different, but relevant, perceptions on how the intervention could remain sustainable. The lead recreation instructor discussed how Zumba® as an exercise dance craze has remained popular over time because it does not feel like exercise. It feels like a party, thereby keeping the participants interested. Thus, she suggested the intervention would be sustainable as long as Zumba® is popular. In contrast, the recreation staff member commented that sustainability was dependent on the participants. The recreation manager believed that two important aspects of sustainability were the instructor and finances. She stated,

Well, I think it [sustainability] has to do with, um, working with an instructor who's willing to teach a large multigenerational group for a reasonable price, and then seeing what the families can, what they can um, provide financially. If it's four dollars a class, five dollars for entire family... if you have enough families, that, that could make it worthwhile. But for the sustainability, it's really providing a safe location and finding a certified instructor who would, um, be willing to teach based

on those in the class... paying for the class. That's a, a critical point with ah, exercise class sustainability.

(Female, 8.5 years as recreation manager)

The recreation manager also commented that an intervention curriculum would need to be created to make the intervention easily replicable. She commented,

...um, that to ensure that this program is considered for replication at, at the community level... then, um, it would be important to create a programmatic, um, and a fiscal blueprint of what it would look like. Something very easy to follow, um, you know, step by step, whether it's recruitment, selecting an instructor, what to look for, but something that was more how-to, more simplified, um, and um, some guidance on how to track biometrically, if, if someone might be interested in that, um, but just that, um, that true br-, ah, programmatic blueprint, um, how to replicate. I think the research component is so fascinating and intriguing. But, I think someone at the community level could get lost in it and feel overwhelmed. How," I could never do this" it's you know... "Too many moving parts, too complicated", but something that was very simplified, I think would be very beneficial.

(Female, 8.5 years as recreation manager)

Discussion

This study examined the feasibility of an intergenerational community intervention focused on physical activity for grandparents raising grandchildren from the perspectives of a recreation manager and staff, physical activity instructors, and health professionals. Indicators of feasibility suggested a demand for the intervention, the intervention was appropriate, and the professionals were satisfied with the intervention. These results imply that the intervention is feasible for future implementation and efficacy testing in similar communities with grandparents raising grandchildren. Successful implementation of interventions using a CBPR approach pushes the researcher to consider the demands of the community in conjunction with the demands of the research goals and/or expected outcomes (Kelly & Van der Riet, 2000). In addition, ongoing communication with stakeholders and being flexible to address their demands and/or concerns can assist with developing a satisfactory relationship and intervention process (Kelly & Van der Riet, 2000).

While the professionals noted the importance of and satisfaction with the intervention, they also provided specific suggestions for ways to enhance it. For example, the recreation manager felt that communication with the recreation staff about what to expect related to family dynamics as well as planning for the integration of the families into traditional recreational activities would be beneficial to the implementation and sustainability of the intervention. Thus, our findings support literature that suggests understanding the importance of design and structure during the planning phases of an intervention can benefit the relationships between researchers and stakeholders and potentially foster intervention success (Klesges, Estabrooks, Dzewaltowski, Bull, & Glasgow, 2005).

The professionals also commented on a challenge related to the practicality of the intervention. The stakeholders stated that the diversity of functional abilities and the intergenerational nature of the class posed a challenge to planning and facilitating the classes. Particularly, the diverse physical disabilities and the children's attention spans were challenging for the instructors. These barriers are not uncommon for intergenerational interventions. When implementing a creative dance intervention with older adults and children, Rossberg-Gempton and Poole (2000) reported similar problems. Strategies to help mitigate these issues include pacing the dances in the beginning, and once everyone is familiar with the tempo of the class, alternating the moves to address attention problems with the children. For example, the youth might be instructed on how to do a more flexible or exaggerated rendition of the older adults' dance. According to the authors, this would allow the older adults to feel capable while at the same time provide a challenge for the children. To address attention span issues, the authors also suggest using a catch phrase to get the children's attention, like "lights, camera, action," or engage in silent gestures such as the "silent no" head shake. They also suggest standing and dancing next to the unfocused child and possibly even asking him or her to help instruct the class. During the developmental stage of future interventions, these approaches can be shared with the instructor to empower the youth and grandparents and reduce the number of distractions present during the sessions. Furthermore, these strategies can be incorporated into the fidelity checklist and potentially increase the quality of intervention implementation.

A goal of this study was to understand how this intervention could be sustained over time from the perspectives of various stakeholders. Overall, the professionals believed the intervention was a good fit for The Center, but that sustainability of the intervention would depend on finances, the participants' will, the exercise implemented, and instructors' skillset. At some point during the life cycle of an intervention, the organization typically has to address questions related to sustainability.

In assessing stakeholders' perceptions of the sustainability of a falls prevention intervention, Hanson and Salmoni (2011) also discovered a diversity of views and used this information to develop recommendations to help organizations and stakeholders work toward the sustainability of future interventions. Some of the recommendations included creating a plan for sustainability during the intervention planning period; drawing upon the skill sets and perspectives of multiple community stakeholders throughout the life cycle of the intervention; and encouraging neighboring organizations to financially support components of the intervention that meet their mission. Many of these recommendations are applicable to the intergenerational intervention presented in this article. Similarly, communities considering intergenerational physical activity interventions can use the results from this study to start a conversation about the sustainability of their intervention.

Bowen's feasibility framework was the guiding vehicle used to elucidate a nuanced and detailed understanding in the implementation of this intergenerational physical activity intervention. In the study, the stakeholders' suggestions emerged from their respective personal and professional viewpoints have implications for creating more holistic and sustainable intergenerational interventions for the kinship population.

Study Limitations

The limitations of the study should be noted. The sample size is small and the intervention was implemented in one community; these factors limit the generalizability of our findings. Another plausible limitation stems from the use of focus groups. Focus group discussions can be dominated by particular people and simultaneously suppress the voices of other group members. However, during the focus group facilitations in this study, we made attempts to hear the perspectives of every individual in the group. Another potential limitation was the relationship fostered between the research team and participants over the course of the study, which may have influenced the participants' responses during the focus groups and interviews. To mitigate this issue, we encouraged participants to be honest and open with their feedback for the sake of improving intergenerational interventions and positively impacting families' health.

It is important to note that this study is novel because it employed an intergenerational and CBPR approach. There is a lack of published intergenerational studies that employ the CBPR approach and include the diverse perspectives of stakeholders. This study addresses these gaps through the development and implementation of a physical activity intervention where grandparents and grandchildren exercised together. Although the benefits of intergenerational interventions have been cited over the years, there recently has been inquiry into the mechanisms behind the interventions and their feasibility in various contexts. The feasibility data from this study can help to identify the interworking of intergenerational interactions and potentially link processes to outcomes.

Concluding Remarks: Lessons Learned

The goal of this study was to elucidate the feasibility of implementing a community-based, physical activity intergenerational intervention for kinship families using CBPR and Bowen's et al. feasibility framework. Applying Bowen's feasibility framework offered a unique opportunity to systematically examine the feasibility of this intervention. By simultaneously using Bowen's feasibility framework and CBPR principles, this study identified information related to the facets of feasibility and the potential programmatic elements to be included in future iterations of these interventions.

The results provided a detailed view of the intervention from the beginning to the end of the study. More specifically, the results illustrate a demand for intergenerational interventions and although suggestions for improvements and barriers were noted, the stakeholders' commitment to the intervention was key to its successful implementation. The information offered in this study can enrich the work of researchers and community practitioners. It can help researchers clarify the mechanisms that may facilitate intergenerational interaction and outcomes. Practitioners can begin to adapt similar interventions in their communities by learning from the various domains of feasibility. In addition, researchers will hopefully appreciate the added value of capturing the voices of multiple stakeholders in a research study, and practitioners will appreciate the added value of incorporating frameworks and rigorous research methods into their work.

Giving attention to these findings is likely to help researchers and practitioners better understand the nuances of developing and implementing interventions addressing the health challenges kinship families face. Hopefully, this study will assist researchers, community organizations, and practitioners with successfully garnering and using community energy and resources, as well as familial connections, to develop, implement, and sustain effective intergenerational community interventions.

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Biography

Dr. Young is a gerontologist who uses community engaged methods to develop, implement, and evaluate community health interventions for older adults. With over 15 years of evaluation experience in both the nonprofit sector and academia, she serves as a bridge between academia and the community and facilitates synergistic relationships that advances the overall well-being of underserved older adults.

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Manuscript Highlights

- We assessed the feasibility of an intergenerational intervention.
- We used CBPR to develop the intergenerational intervention.
- Professional stakeholders deemed the intervention as feasible.
- Professional stakeholders provided suggestions for future implementation.

Table 1**Feasibility Study Components and Definitions**

Components	Definitions
Demand	Addresses the extent the intervention is likely to be used and the degree of expressed interest in the intervention.
Acceptability	Addresses the extent the intervention is judged as suitable, satisfying, or attractive.
Practicality	To what extent can the intervention be carried out with the intended participants using existing resources, means, and circumstances, w/o outside intervention?
Integration	To what extent can the intervention be integrated within an existing system and sustained?
Limited-efficacy testing	Assessing an intervention's outcomes, but in the limited capacity that feasibility studies allow (i.e., using convenience sampling, measuring intermediate outcomes, having shorter follow-up intervals, etc.).
Implementation	To what extent can a new idea, intervention, process, or measure be successfully delivered to intended participants in some defined, but not fully controlled, context?
Adaptation	Addresses the adjustments that are made to fit the intervention's new context.
Expansion	Assesses the potential success of adopting a proven successful intervention with a different population or different environment.

Note. Adapted from Bowen, D. J., Kreuter, M., Spring, B., Cofta-Woerpel, L., Linnan, L., Weiner, D., et al., (2009). How we design feasibility studies. *American Journal of Preventive Medicine*, 36(5), 452–457.

Table 2

Feasibility Components Related Questions, and Data Sources

Components	Questions	Data Sources
Demand	What was the level of expressed interest in the intervention?	Focus groups/interview & survey questions
Acceptability	To what extent was the intervention assumed to be appropriate or satisfying?	Focus groups/interview & survey questions
Practicality	To what extent was the intervention implemented using existing resources and means?	Focus groups/interview
Integration	To what extent was the intervention incorporated within the existing context? What are the prospects for intervention sustainability?	Focus groups/interview & survey question

Note. Question adapted from Bowen, D. J., Kreuter, M., Spring, B., Cofta-Woerpel, L., Linnan, L., Weiner, D., et al., (2009). How we design feasibility studies. *American Journal of Preventive Medicine*, 36(5), 452–457.