**ACTION-RESEARCH**

# Data Dissemination in CBPR: Accountability and Responsiveness

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Community based participatory research (CBPR) is centered on the principle that research should be a collaborative process and that, ideally, community members be involved in all aspects of the research process from design to dissemination. Yet the standard form of dissemination in academia is publication in academic journals or presentations at academic conferences – dissemination pathways which are rarely accessible or useful to lay persons in the community. The purpose of this paper is to describe two unique strategies used to disseminate the results of a needs assessment conducted as part of a CBPR project in Petersburg, Virginia: (1) a "Youth Day" World Café event, and (2) the use of ethnodrama. In addition, the paper will examine how these processes of dissemination contributed to the bi-directional transfer and sharing of knowledge between the community and researchers. The "Youth Day" and ethnodrama described in this paper are two successful examples of innovative dissemination strategies employed to engage the community with research findings, validate the findings, and aptly demonstrate how empirical findings emanating from the community can inform intervention development.

**Keywords:** CBPR; dissemination; community engagement; ethnodrama; World Café method

Community based participatory research (CBPR) is centered on the principle that research should be a collaborative process and that community members be involved in all aspects of the research process from design to dissemination (Israel et al., 2017). There is much literature describing and explaining the benefits and challenges of engaging communities in identifying research questions, developing research materials, collecting data, and (to a lesser extent) analyzing the data (Mosavel, Simon, van Stade, & Buchbinder, 2005; Ramanadhan et al., 2016; Rasmus, Charles, & Mohatt, 2014; Schaal et al., 2016). Researchers engaged in CBPR have developed an extensive process to ensure that the data dissemination phase is purposeful and is included as part of the overall research plan (Israel et al., 2017) and while the importance of considering community engagement in the dissemination of data is commonly cited in CBPR literature (Chen, Diaz, Lucas, & Rosenthal, 2010), there are few examples as to how it is actually done (McDavitt et al., 2016; Parker et al., 2012; Vaughn et al., 2013).

Dissemination of research back to the community represents accountability as well as the transfer and sharing of knowledge (co-learning) between the community and academics and is an important tenant of CBPR (Garnett et al., 2015). Disseminating data provides opportunity for the community to review and respond to empirical findings about their community but also for the researchers to conduct "community" checking of findings and to learn more about how the community responds to the various data points and unexpected findings, if any. The process of data dissemination itself is also a data gathering opportunity that serves not only to build trust but as a validity and integrity check of findings and interpretations. Further community mobilization and research engagement can be facilitated through data dissemination activities and therefore can have functionality beyond only information sharing and specifically can facilitate collective efficacy, or a group's shared belief in its collective power and ability to address an issue – an effect that can extend beyond the research project and can promote community action in other areas (Garnett et al., 2015). Furthermore, data dissemination activities reinforce the concept that the community is central to the

research – that the research is not just *about* the community, but it is a process of co-creating *with* the community. Data dissemination also provides tangible evidence of a model that is contrary to the "helicopter" approach of researchers collecting data as an endpoint as opposed to the beginning of a process (Horowitz, Robinson, & Seifer, 2009). Data dissemination provides an important inflection point which showcases the study findings and provides the opportunity to engage the community in a dialogue about their desired next steps based on the data. More than any other step in the research process, the data dissemination phase can be especially important for building relationships with marginalized communities who may be distrustful of researchers based on past experiences of being "researched" without any evidence of the research benefiting the community (Chen et al., 2010).

Various strategies can be utilized to facilitate engagement in data dissemination emphasizing the role of community as active participant and co-creator of dissemination activities. For instance, a dissemination steering committee can be formed, which includes community members, to systematically plan the dissemination outputs as well as community ownership and engagement (McDavitt et al., 2016; Parker et al., 2012). Similarly, community advisory boards can be used to provide input and generate unique ideas for dissemination strategies to meet the needs of their community (Vaughn et al., 2013). As a bi-directional and cyclical process (McDavitt et al., 2016), community engagement in data dissemination goes beyond community input into how the data is disseminated but also includes the actual engagement of the community with the data – dissemination becomes an engaged process where active engagement with the data is sought (Mosavel, Ferrell, & LaRose, 2016). Disseminating data in an accessible format can strengthen the research by allowing the community to verify or refute the findings, use it as a catalyst for addressing related concerns, and in the case of intervention development research, can provide additional data to inform the intervention (Stuttaford et al., 2006).

The purpose of this paper is to describe two unique strategies, developed collaboratively by a research team of academics and community members, used to disseminate the results of our needs assessment to two distinct subsets of the community: youth and adults, and to examine how the dissemination process allowed for substantive feedback which was used for intervention development.

## Background and Community Context

With a population of approximately 32,000 (U.S. Census Bureau, 2017), Petersburg, Virginia is located just south of the state's capital, Richmond. The majority of Petersburg's population is African American (78%), 25.2% of its residents fall below the federal poverty line, and it has amongst the lowest median income in Virginia (U.S. Census Bureau, 2017). Petersburg also has the poorest health outcomes compared to the rest of Virginia: 26% of Petersburg residents report poor/fair health compared to 16% of Virginians overall (Robert Wood Johnson Foundation, 2018). The health disparities in Petersburg can be better understood through consideration of the domains of influence on health, including behavioral, physical/built environment, and the sociocultural environment (National Institute on Minority Health and Health Disparities, n.d.). Petersburg ranks last in Virginia for health behaviors, including smoking and physical activity (Robert Wood Johnson Foundation, 2018). In regards to the physical environment, Petersburg has the worst food environment in the state (3.8 on a scale of 10), 21% endure severe housing problems (overcrowding, high cost, or lack of kitchen/plumbing) and the violent crime rate is 588 per 100,000 (compared to a state-wide rate of 194) (Robert Wood Johnson Foundation, 2018). Socio-culturally, 67% of Petersburg children live in single-parent households (Robert Wood Johnson Foundation, 2018). Given these challenges, it is perhaps unsurprising that 45% of Petersburg adults present as obese (Robert Wood Johson Foundation, 2018), and obesity has become a major public health concern in Petersburg (Virginia Department of Health, 2013). Yet despite the many challenges the city faces, there are many assets ranging from highly invested community-based organizations to local residents working collaboratively or independently to ameliorate these alarming health factors and outcomes (Mosavel, Gough, & Ferrell, 2018).

The Petersburg Wellness Engagement (WE) Project was established as a partnership between Virginia Commonwealth University and a local community development organization, Pathways, Inc., to understand and address health disparities in Petersburg. Community meetings with a broad range of stakeholders (including residents, community-based organizations, and the faith community) were convened to determine the community's priorities and salient health concerns. Feedback from the meetings resulted in a community identified research focus: obesity, as well as overall community support for and interest in participating in the project.

Using a community-based participatory framework, the WE Project engaged community residents in the development of an obesity intervention specific to their needs. The WE Project is guided by a Community Health Leadership Council (CHLC) consisting of key community leaders from diverse sectors, and engages Wellness Ambassadors (WA), residents who serve as community researchers, in study design, implementation, data analysis and dissemination. In addition to research activities, the WE Project launched the Petersburg Wellness Consortium (https://www.pwcpetersburg.org), which was formalized into an independently run alliance of community stakeholders working to empower the community and strengthen the culture of health in Petersburg.

As a first step to developing a community-based intervention, a needs assessment was conducted by the research team, which included the WA. A total of six focus groups were held with representatives from community and faith-based organizations, businesses, the health sector, parents and youth; 34 House Chats (focused conversations led by a community member in a home setting) were conducted with 181 participants (Mosavel et al., 2016), 40 key informant interviews were completed, a community survey was conducted (N = 1,317), and an asset-mapping project was completed by teams of Petersburg youth and university students who identified 358 different assets in Petersburg (Mosavel et al., 2018). The data collected during this phase confirmed that obesity was a major health concern for many Petersburg residents and also shed light on the unique social and environmental barriers residents experienced.

## Disseminating Results of Community Needs Assessment

The needs assessment suggested that interventions to address obesity in Petersburg should focus on engaging the entire family thus it was important that the information gathered during the needs assessment be disseminated to both youth and adults. As such, it was important to consider the different needs of these two distinct audiences. The WE Project worked collaboratively with the CHLC and WA in designing the dissemination activities. Thus, with CHLC and WA suggestions and the goal to create an interactive, engaging process, a "Youth Day" was developed to engage the youth in the data and a play was written and produced for the community at large.

### Youth Day: Engaging Youth

Youth are commonly included in CBPR research, however the capacity in which they are included varies widely. In a review of the literature of CBPR with youth, Jacquez, Vaughn, and Wagner (2013) found that youth were mostly likely to be involved in the identification of research needs and goals and in the research design and collection process. Youth were least likely to be involved in data analysis or dissemination. Despite the acknowledged importance of obtaining the youth voice, there is a gap in the literature regarding the actual dissemination of research findings back to the youth.

When engaging youth in any stage of research, their developmental needs should be considered. The use of art and drawing have been successful techniques to encourage meaningful participation in research and also provides insight into youth way of thinking which may not be as apparent through other methods (such as interviews) (Coad, 2016). Similarly the use of task based activities such as group brainstorming using large sheets of paper to diagram thoughts and ideas has been found to be a useful technique to maintain attention and gain valuable insight (Punch, 2002). The physical environment should also be considered when working with youth – traditional seating arrangements are not always the most conducive for maintaining attention and standing up and moving around can facilitate interaction and enhance group dynamics (LoIacono Merves, Rodgers, Silver, Sclafane, & Bauman, 2015).

**Method.** "Youth Day" was organized in collaboration with the local YMCA and Parks and Leisure Department as a way to not only share with local youth the information garnered during the needs assessment, but also to learn from them what elements they thought would be effective in an intervention to increase physical activity and help families make healthier food choices. Institutional review board approval was obtained for the data dissemination activities including "Youth Day" and a waiver of written consent was obtained. Prior to "Youth Day", parents were provided an information letter explaining the purpose of the event, inviting youth to participate, and explaining that they may opt out of the event. Participants for youth day were recruited via word of mouth through the YMCA and Petersburg Parks and Leisure Department. A total of 44 youth, 70% female, and ranging in age from 13 to 21 participated in the half-day event.

Virginia Commonwealth University students, community volunteers, and WAs were recruited to help facilitate the event. Over 20 volunteers attended an in-person training conducted by the researchers to

review the study findings and discuss the logistics for the event including reviewing the process, designing activities at each table and establishing roles (e.g., facilitator, note taker, registration, greeter, and set-up/clean-up crew).

A healthy breakfast was provided to start the event and the day's activities were formatted to promote active engagement. The activities were fast paced and responsive to differential learning and participation and provided different response options including verbal, key words, and drawings. Youth engaged with the data through visiting each of the four stations with different themes using the World Café method (Steier, Brown, & da Silva, 2015). The youth were divided into eight groups with four to seven participants per group with four differently themed stations. Each table had at least two facilitators to assist with the flow and time management at each table. The topics discussed at each table included: (a) healthy foods, (b) support for healthy eating, (c) physical activity, and (d) youth as agents of change. The stations included labeled tables, but did not include chairs so as to promote group interaction and freedom of movement, for example, some youth chose to lay on the ground while they illustrated their concept. The groups cycled through each of the four themed tables, spending about 25 minutes at each. To reinforce the focus of the research and to demonstrate one of the key findings (make physical activity fun), we intentionally designed fun, physical activity breaks (e.g., line dancing, Zumba, etc.) which were held periodically throughout the morning.

The groups followed a consistent format at each station which began with the facilitator sharing the results of the community research. As part of the volunteer training, facilitators were provided with key points from the formative research to be shared with the youth to spur discussion (**Table 1**). Using a specific set of questions facilitators would then guide the youth in a discussion about the research findings as well as suggestions about translating the findings into a proposed intervention. During discussion, youth were encouraged to express themselves verbally or to visually represent their ideas through drawings, doodles, or jotting key words on butcher paper spread out on each café table. During the last few minutes of each World Café session, the youth were asked to write on index cards the three main points they took from the discussion. Key points identified by youth regarding the best way to engage families in making healthy choices included:

**Table 1:** World Café Topics.

| World Café Topic | Key Points from Needs Assessment |
|---|---|
| Topic 1:<br>Can you make a difference?<br>Youth as an Agent of Change | · Clear message from our data that the intervention should involve the entire family<br>· We know from research that family based change is most powerful, and that one person in a family can make a big difference in terms of promoting change |
| Topic 2:<br>Education to live a healthy life:<br>Eating healthy | · Message from data that eating healthy is seen as difficult and unattainable<br>· Eating healthy is perceived as expensive – cost of food and limited access<br>· Would like to make changes, but need support, encouragement and knowledge<br>· Eating healthy can be done on a limited budget<br>· Even making small changes to what and how much you eat can have a big impact on your overall health – it does not have to be all or nothing |
| Topic 3:<br>Portions: Fat, Fruits, Vegetables, & Sugary Drinks | · Learning what to eat happens/is taught in families – as expected, many adults are teaching their children what their parents taught them<br>· Key barriers to healthy eating in data were around education about how to eat healthy<br>· Many people said that fresh fruits and vegetables were not available to purchase at their corner stores<br>· The majority of families said that weight was a big issue in their family and that they wanted to be healthy<br>· Making small changes to what and how we eat can have a big impact on health |
| Topic 4:<br>How to get moving:<br>Increasing physical activity | · Seen as a key area for family based change<br>· Most residents indicated they would like to make changes to be more physically active, but needed support and encouragement to make these changes<br>· Physical activity needs to be fun<br>· Exercise seen as "what those other (rich) people do"<br>· Most people said that their neighborhood is a safe place for physical activity |

(a) a focus on fun, family activities: "trick them by doing something they like but still physical fitness," "encourage your family to play fun fitness activities;"

(b) importance of leading by example: "younger siblings will follow older kids so lead by example;" and

(c) ways to eat healthier: "go on websites and find things for healthier foods," "portion your foods and substitute for healthier foods."

**Evaluation results.** To assess youth engagement with the activities, facilitators were asked to rate the groups' level of active participation at each stop of the World Cafe. Overall, on a three-point scale of low-medium-high engagement, the groups showed medium to high levels of engagement for all topics. A survey was also administered at the end of the event to assess the extent to which the youth understood and retained the information provided to them throughout the day's activities and to further elucidate the validity of findings from our formative research (**Table 2**). Nearly all the youth participants (96%) considered being overweight an important health issue in Petersburg and over half the participants indicated they were willing to begin making changes to their diet or increase physical activity to improve their health. Further-

**Table 2:** Youth Day Exit Survey (n = 44).

|  | Strongly Agree | Agree | Disagree | Strongly Disagree |
|---|---|---|---|---|
| Obesity/being overweight is an important health issue in Petersburg. | 66% | 30% | 2% | 2% |
| My neighborhood is a safe place for my family and me to engage in physical activity/exercise. | 25% | 64% | 9% | 2% |
| My parent/caregiver will listen to me if I encourage them to make healthier food choices. | 25% | 68% | 2% | 5% |
| My parent/caregiver will listen to me if I encourage them to become more physically active. | 36% | 57% | 46% | 2% |
| I am ready to help my family make heathier food choices. | 36% | 64% | 0% | 0% |
| I am ready to help my family become more physically active. | 41% | 55% | 4% | 0% |
|  | **Often** | **Some times** | **Rarely** | **Never** |
| Before today, have you ever considered whether the food you eat is healthy? | 39% | 61% | 0% | 0% |
|  | **Very willing** | **Willing** | **Somewhat willing** | **Not willing** |
| How willing would you be to start eating smaller portions of the foods you currently eat? | 27% | 39% | 32% | 2% |
| How willing are you to change the types of foods you eat? | 34% | 27% | 39% | 0% |
| How willing are you to increase physical activity by walking/sports? | 57% | 29% | 14% | 0% |
| What is the one change that you are willing to make to eat healthy? | · Eat more fruits and vegetables<br>· Stop drinking so much soda<br>· Not eat big portions<br>· Eat out less<br>· Cut down on junk food and fried foods | | | |
| What is the one change that you are willing to make to become more physically active? | · Get more involved in sports<br>· Go outside more<br>· Make time for the gym<br>· Walk every day | | | |

more, all the participants reported being ready to help their family make healthier food choices and nearly all (96%) indicated they were ready to help their families become more physically active. Also encouraging is that the majority of the youth felt that their parent/caregiver would listen to them if they provided them with input regarding food and/or activity choices. The youth offered a variety of diet and physical activity changes they would make to be healthier including eating more fruit and vegetables, limiting soda consumption, reducing portion sizes, eating less junk/fast food, going outside more, getting involved in sports, making time to go to the gym, and taking a daily walk.

### *Using Theater Arts as Data Dissemination: Changes and Choices Play*

The concept of *edutainment,* refers the integration of education elements with entertainment as a way to increase learners' enthusiasm and willingness to engage with a subject (Aksakal, 2015). There is a rich history in community based health promotion of using theater to raise awareness of health issues (Rossiter et al., 2008). Dramatization of research findings allows for greater engagement with the material and can lead to greater understanding, particularly when presented to the general population and those outside of the academy (Gray et al., 2000). The use of theater in research has taken many forms, from Playback Theater which is a form of improvisation where trained actors act out the life stories presented to them from members of the audience (Fox, 2007; Mosavel & Teleange, 2009) to ethnodramas in which the script and narrative is derived from the data collected (Mienczakowski, 1997).

**Method.** The Conciliation Project, hired by the WE Project, created and presented an hour long ethnodrama titled "Changes and Choices: Life and Health Decisions" which used song, stories, and poetic drama to look at the choices people make regarding food and physical activity, the challenges they encounter, and the importance of community and family supports to live one's best life. The script was based on key findings and themes identified from the WE Project formative research which included family-based change, community cohesion, acknowledgment of social determinants of health, and motivational skills for changing unhealthy behaviors. Additionally, the team, which included the researchers, community members in the role of WAs, and CHLC members, determined that it would be important to address the numerous barriers to healthy living identified in the formative research including the perception that a healthy lifestyle is expensive or what "well-off" people do, that healthy living takes too much time, that healthy eating is seen as "punishment," and that there is a lack of knowledge of how to cook "healthy" (Mosavel et al., 2016). These key findings and themes were provided to the Conciliation Project and were intertwined with relevant statistics and data about health and obesity to inform the script for the play.

It was essential that those attending the play "see" themselves reflected in the play, thus to further strengthen the community voice, personal narratives of some of the WAs were incorporated into the play. For instance, a WA's reflection on gaining and losing weight was portrayed in the epilogue of the play:

> My first victory was during my time at a Job Corps Center in PA. After being that 'pretty but chubby' girl all my life, I was finally forced to get some exercise. Our dorm had the longest walkway and all of my classes were at least a one mile walk from my dorm. It was the first time I ever saw myself with a flat tummy. I LOST 75 pounds in Job Corps but once I left I stopped doing all that walking and started gaining it back… Fast forward…I started to eat healthy foods and get my exercise in at least 3 times a week. NOW, I like to consider myself an example.

The script development was an iterative process in which drafts of the script were sent to the WAs and members of the leadership council working with the WE Project for comment to ensure it represented the community voice including language and word choice as well as the local food culture. For example, a song titled "It Just Tastes Nasty" referenced beliefs that healthy foods don't taste good, a theme that was identified throughout the needs assessment. The song reflected the ubiquitous finding that indicated limited access to affordable fresh produce juxtaposed with the proliferation of corner stores in the community.

Through the use of key findings and using personal stories emerging from the data, as well as incorporating local images, names and locations, the goal of the edutainment vignettes was to mirror the findings and therefore, the perspectives and experiences of those who participated in the needs assessment. In addition, throughout the play the theme of empowerment and self-efficacy was highlighted in direct response to

another theme that emerged during the needs assessment which was the importance of addressing family and generational patterns related to food. Thus, the play ended with a message of empowerment and call to action emphasizing that *anyone* can make a change to live healthier and that the choices one makes can impact the choices those around them make.

**Evaluation results.** Through word of mouth and advertising in local media, more than 250 community residents, civic organizations, and city leaders attended the play. At the conclusion of the play, a 30-minute facilitated dialogue ensued in the large group which allowed participants to provide or hear reactions to the vignettes. In addition, several audience members provided personal testimonies of their own experience with obesity and other health related concerns. In concluding the evening's activities, a brief survey was administered to gauge reactions and to determine whether the messages the play intended to impart were understood (**Table 3**). Nearly all indicated that characters in the play reminded them of someone they knew (91%) or that they could identify with at least one of the scenarios (87%). Furthermore, the vast majority (87%) indicated they were motivated to make changes in their lifestyle after watching the play. Attendees identified numerous key messages from the play such as understanding the link between healthy eating, physical activity and good health; that it is important to incorporate physical activity into daily life; and the need to commit to making better food choices.

**Table 3:** Changes and Choice Play Exit Survey.

|  | Strongly Agree | Agree | Disagree | Strongly Disagree |
|---|---|---|---|---|
| Characters in play remind me of people I know. | 45% | 46% | 1% | 8% |
| I can identify with at least one of the scenarios in the play. | 51% | 36% | 1% | 10% |
| Young people can influence family to make healthy lifestyle choices. | 51% | 36% | 4% | 9% |
| After watching this play, I am motivated to make changes in my lifestyle. | 49% | 37% | 0% | 11% |
| This play was very entertaining and enjoyable. | 71% | 16% | 0% | 11% |
| **Based on the play, which statement(s) do you think are true?** | | | | |
| Obesity starts with being overweight. | | | | 2% |
| Obesity is a medical disease. | | | | 1% |
| Obesity can lead to other health problems. | | | | 13% |
| All of the above are true. | | | | 81% |
| **Based on the play, which statement(s) so you think are true?** | | | | |
| Walking 20 minutes/day could help improve my health. | | | | 96% |
| To make a difference in my health, I have to join a gym. | | | | 0% |
| Zumba does not count as exercise. | | | | 0% |
| None of the above are true. | | | | 3% |
| What do you think is the key message this play conveys about food choices? | · Make better and healthier choices, change behaviors<br>· Eat healthier: fresh food, fruits and veggies<br>· Importance of discipline and commitment to making better food choices | | | |
| What do you think is the key message this play conveys about physical activity? | · Importance of discipline and commitment to being active<br>· Incorporate more physical activity into daily life – be active<br>· Physical activity is beneficial and good for you<br>· Acknowledged link between healthy eating and physical activity for good health | | | |

## Discussion

Data dissemination in the community where the research is conducted is a key component of CBPR (Israel et al., 2017). Data dissemination is more than simply sharing the key findings with the community, although this activity itself is of importance. The challenge for community engaged researchers is to explore how dissemination activities itself can have a purpose beyond the data sharing. In this study, we used two methods to disseminate key findings based on a comprehensive needs assessment. In the first data dissemination activity, we used the World Café method (Steier, Brown, & da Silva, 2015) to engage youth and facilitate discussion about the research findings in order to identify and understand issues of importance to them which could be used in a future obesity intervention. Given that the data dissemination was focused on youth, we used engagement strategies appropriate for their developmental level and encouraged the use of drawings, keywords and short burst of concentrated thinking interspersed with dance as a physical activity. Furthermore, this activity required close collaboration with youth organizations and the training of at least 15 volunteers who could interact at each of the World Café stations, assist with the food, and lead the dance activities.

The process evaluation showed that the majority of the youth found the World Café method to be highly engaging. Key findings that emerged from the World Café's was that youth agreed that obesity was a major problem and more than half indicated that they would be willing to make changes to engage in more health behaviors. During the World Café discussions, youth suggested, for example that cooking lessons and education on what foods to buy are resources that might help families eat healthier; regarding physical activities, a frequent topic of discussion was that fun community or group activities would help families "get moving." Importantly, the majority indicated that they perceived themselves as having the efficacy and influence to assist their parents in making healthier food choices. Youth discussed numerous creative ways that they could help their families engage in a healthier lifestyle such as initiating a regular family walk, plan fun family activities, ask parents to buy healthier foods and snacks, cook a healthy meal for the family, and generally lead by example by drinking more water instead of soda and exercising regularly.

The "Youth Day" provides an example of how to effectively disseminate research findings to youth in a manner that is engaging, and most importantly, including dynamic activities that accommodates their shorter attention spans. Through engaging the youth, we were able to not only share key research findings but we were also able to garner important information regarding the refinement of an obesity intervention.

The second activity used to disseminate findings was the use of the edutainment method (Aksakal, 2007) to develop vignettes to highlight key findings, seek input, and create momentum for the pilot obesity intervention. The results of the exit survey indicate that the script development process and incorporation of community narratives and neighborhood specifics was effective in helping attendees relate to the material.

Through disseminating our formative research findings to the community, the results were not only validated, but the process allowed additional community input which has been incorporated in the intervention design. Key findings from the formative research along with feedback obtained through the dissemination phase informed the intervention. For instance, viewers of the *Changes and Choices* play discussed the need for programming which offers support and encouragement to help them make lifestyle changes to be healthier so the intervention includes the training of community members as peer support coaches to provide education and check-ins, as well as incentives to attend community events. Participants also emphasized that the intervention should focus on realistic changes and strategies and that experiential learning is important, thus the intervention incorporated personalized goal setting strategies, and a small change approach. The dissemination process also validated our findings that engaging the whole family was important and that the intervention must be Petersburg specific.

### *Challenges and Limitations*

Engagement in the data dissemination process is essential during the planning stages to determine the depth and breadth of dissemination activities. While the discussion above demonstrated two successful methods for actively engaging community with research data, the successes did not occur without challenges. The research team, including the WAs, regularly met with the CHLC to determine optimal dissemination strategies. However, as with CBPR in general, disseminating research in an accessible manner can be more time consuming and costly than traditional methods of disseminating research (i.e., written reports) (Chen et al., 2010). The dissemination methods described here required extensive planning and resources: from recruiting and training volunteers, to planning the logistics of the events, as well as

collaborating with a playwright to develop a script for the play. While engaging community volunteers to implement the events can be a logistical challenge, it can also be perceived as a strength as it engages more community members in the "behind the scenes" of the activities leading to greater sense of ownership in the project. It also provides a natural recruitment network as volunteers invited their families and social networks to the events.

The time involved in implementing these dissemination methods can be especially challenging when the dissemination process is a necessary step for the development of the intervention research, such was the case with this project where the dissemination activities were used to inform an obesity intervention, and thus the time required for these creative efforts can possibly delay the next step. Yet again, the commitment to community dissemination activities can establish more credibility and community support for the next step (i.e., intervention). However, adjusting researcher expectations about the time required for dissemination in particular, and CBPR in general, is more than just a practical matter. Providing the time and space needed for community engagement in the dissemination processes is essential and invaluable for ensuring inclusivity and promoting a process of co-learning, transparency and accountability.

Lastly, the methods used are not necessarily generalizable to all communities. Like all aspects of CBPR, data dissemination activities have to be appropriate for the types of findings and community context. Dissemination must be tailored to facilitate engagement with the community and allow community members to "recognize," themselves and provide opportunities for interaction with the data. Engaging the community in the development and implementation of dissemination activities is an essential step in ensuring the dissemination methods resonates with the community and provides the opportunity for ongoing engagement.

## Conclusion

Community and stakeholder engagement throughout the research process is essential to facilitate data dissemination as it leads to an understanding of dissemination as part of an ongoing process of engagement. Data dissemination is critical to demonstrate accountability and serves as a form of community checking and validation of findings. Using innovative methodologies that resonate with the target audience is of particular importance to data dissemination activities to enhance relevance. Engaging community throughout the dissemination process is essential for developing relevant dissemination activities. The WE "Youth Day" and *Changes and Choices* edutainment are two successful examples of dissemination strategies employed to engage the community with research findings, validate the findings, and aptly demonstrates how empirical findings emanating from the community can inform intervention development.

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## Competing Interests

The authors have no competing interests to declare.

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