Power Up for Health—Participants' **Perspectives on an Adaptation of** the National Diabetes Prevention **Program to Engage Men**

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Abstract

The National Diabetes Prevention Program (NDPP) has been effectively translated to various community and clinical settings; however, regardless of setting, enrollment among men and lower-income populations is low. This study presents participant perspectives on Power Up for Health, a novel NDPP pilot adaption for men residing in low-income communities in New York City. We conducted nine interviews and one focus group with seven participants after the program ended. Interview and focus group participants had positive perceptions of the program and described the all-male aspect of the program and its reliance on male coaches as major strengths. Men felt the all-male adaptation allowed for more open, in-depth conversations on eating habits, weight loss, body image, and masculinity. Participants also reported increased knowledge and changes to their dietary and physical activity habits. Recommendations for improving the program included making the sessions more interactive by, for example, adding exercise or healthy cooking demonstrations. Overall, findings from the pilot suggest this NDPP adaptation was acceptable to men and facilitated behavior change and unique discussions that would likely not have occurred in a mixed-gender NDPP implementation.

Keywords

diabetes, men of color, men's health interventions, behavior modification/change, qualitative research

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It is well documented that men have shorter life expectancies than women and experience a higher prevalence of many chronic health conditions, including type 2 diabetes (Pinkhasov et al., 2010; Salomon et al., 2012). The percentage of women in the United States with diagnosed diabetes is 9.2% compared to 9.4% for U.S. men; about 3.4% of men have undiagnosed diabetes compared to 2.5% of women (National Center for Chronic Disease Prevention and Health Promotion, 2017). Men are also 32% more likely than women to be hospitalized for long-term complications of diabetes and more than twice as likely as women to have a leg or foot amputated (Agency for Healthcare Research and Quality, 2012). Statistics are particularly troubling for men of color. For example, Latino men are twice as likely to die from diabetes as White men (Graham & Gracia, 2012), and Black men are almost three times as likely to have diabetes-related end-stage renal disease compared to White men (Office of Minority Health Resource Center, 2016). Without targeted approaches, the accelerated dissemination of evidence-based lifestyle

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programs to prevent type 2 diabetes is unlikely to reduce these disparities, as engagement of men—particularly men of color—has been significantly lower than women (Ely et al., 2017).

Despite the evident need, male-targeted programs addressing behaviors linked to diabetes prevention (i.e., healthy eating and increasing physical activity) are limited in number. Those described in the literature emphasize the need for sensitivity to male priorities and preferences in program design and implementation (Caperchione et al., 2012; Gill et al., 2016; Johnson et al., 2016; Treadwell et al., 2010; Wyke et al., 2015). For example, implementation in locations that are accessible and/or consistent with male interests (e.g., worksite, sports venue) is considered essential, as is incorporation of masculine values (e.g., resilience). Save our Sons, an intervention specifically targeting African American men, utilized community health workers, trusted members from the target community, to facilitate trust (Treadwell et al., 2010).

The purpose of this article is to add to the literature on male-focused diabetes prevention programming. This study presents participants' perspectives after attending *Power Up for Health*, an adaptation of the Centers for Disease Control and Prevention's (CDC) evidence-based National Diabetes Prevention Program (NDPP; Centers for Disease Control and Prevention National Center for Chronic Disease and Prevention, 2017). *Power Up for Health* was developed for men of color residing in low-income neighborhoods in New York City (NYC).

Methods

Study Overview

Power Up for Health was implemented at five NYC Parks sites in disadvantaged neighborhoods from fall 2015 through summer 2016. Four of the groups were conducted in English, one in Spanish. The intervention included 16-weekly, 1-hour core sessions facilitated by male lifestyle coaches. (A full description of the program design and implementation, as well as the main outcomes are described elsewhere [Walker et al., 2018; Gary-Webb et al., 2018]).

Participant Perspectives

Participant perspectives on the program were gathered primarily through a focus group (n = 7 participants) and individual interviews (n = 9 participants). We conducted the focus group in English in early 2016, following completion of the first two groups. Telephone interviews were conducted following the completion of the second set of groups, in the summer and fall of 2016. Interviews were conducted in English and Spanish. A second focus group was originally planned, rather than individual interviews; however, language differences (English and Spanish) and distance between groups made phone interviews more feasible. The facilitators used semistructured discussion guides in the focus group and interviews, and conversations were audiorecorded. Focus group participants provided written consent, while interview participants gave verbal consent, as these interviews were conducted over the telephone. The protocols for the focus group and interviews were reviewed and approved by the Institutional Review Boards at the New York Academy of Medicine and Albert Einstein College of Medicine. Sample questions from the discussion guides are presented in Table 1. Recordings were professionally transcribed and transcripts were managed using NVivo, a software package for qualitative analysis (NVivo 11, QSR International Pty Ltd, Doncaster, Victoria, Australia). Consistent with common qualitative approaches, the focus group discussion and interviews were coded for preidentified and emergent themes (e.g., tracking food and exercise, male aspect of the program) and analyzed using repeated reviews of the data by multiple members of the research team (Goldman & Borkan, 2013).

Results

As described elsewhere, 25 individuals across five groups at different sites attended at least four sessions and were counted as *Power Up for Health* participants (as per NDPP guidelines). The mean weight loss for those who had an end-of-program weight measured (n = 22) was 9.7 lbs. The average percentage weight loss for the five sites was 3.8%. However, three of the five sites had an average weight loss meeting the NDPP target of 5%–7%. For a complete summary of quantitative outcomes of the study, see the companion article in this journal (Walker et al., 2018).

Sixteen of the 25 participants (64%) took part in a focus group or interview after completion of the 16-week sessions, although all were eligible and invited. Participants represented in the focus group and interviews were demographically similar to the larger group; Latino and African American men comprised the majority (7 Latino = 44% and 7 African American = 44%), although there was a larger proportion of Latinos and a smaller percentage of African Americans in the interviews and focus groups, as compared to the larger *Power Up for Health* group. The interview and focus group participants also skewed slightly younger, but the difference was small (average age 48.3 years compared to 51.7 years).

Overall, participants reported positive perceptions of the program, emphasizing—as described in detail below the all-male aspect of the program and the camaraderie and

Domain(s)	Questions
Perceptions of the program	Overall, what did you think of the program?
	 Which aspects of the program were the most challenging for you? Why?
Program impacts	 Do you feel the program has impacted your health—either how healthy you feel or any reports you've heard from your doctor (if you've been)?
	 Have your eating habits changed since you began the program? In what ways have they changed? Have your exercise habits changed since you began the program? In what ways have they changed?
Curriculum	 How helpful were the program materials?
	 Were you able to relate to the examples provided in the materials?
	• Are there specific sessions and topics that stand out in your mind—either because they were very good or not so good?
Male-only aspect	What did you think about the all-male aspect of the program?
	• What are the benefits or downsides of doing an all-male program?
	 Do you feel that the group members interacted well with one another?
Coaches	How was your Power Up coach?
	• Did he present the material in a way that was easy to understand?
	Was he effective in motivating you?
Recommendations	 Is there anything that should be changed about the program?
for program improvement	 [In terms of recruitment] How do you think we should get the word out and get more men interested in the program?

Table I. Focus Group and In-Depth Interview Questions.

knowledge gained, particularly around nutrition. They also reported challenges ranging from issues with tracking food intake to low attendance in classes. Lastly, recommendations were offered on how the program could be improved, which focused on making the classes more interactive.

"These guys motivated me"—The all-male aspect of the program

Participants appreciated the all-male aspect of the program, citing increased comfort with discussions of body image, eating, and weight loss issues. Participants noted these topics could not be addressed with the same ease in a mixed-gender group. Participants also explained that without women in attendance, they felt less of a need to filter their comments.

I felt comfortable in that environment. I have a mother and a sister at home. I wasn't able to hear what they discussed. I mean we discussed females...but I don't want to hear about mammogram, pap smear, vagina stuff or yeast infections. I'm a male. I would like to hear more of erectile dysfunction, a male topic from another male's perspective. (African American participant, aged 50)

I think it made us talk more openly about our issues and a lot of time connected to why we eat the certain way we do, like I feel that there are very different ways how men do things than women. (Latino participant, aged 38)

Guys don't want to sit around and talk about the crap, the lousy parts of being overweight, in front of women and I'm sure women don't either. (White participant, aged 62) Since we're men, we have more confidence with one another in venting, and saying what we feel, and what is happening to us. If women were there, many men act as machos, and they feel they can't say what they really feel because a woman is present. (Latino participant, aged 56)

The all-male aspect of the groups and the camaraderie between participants was identified as a source of motivation to continue attending classes and to make positive behavioral changes. Relative homogeneity with respect to race and ethnicity was also valued: participants appreciated opportunities to speak openly about issues around race to other men of color. In some cases, men likened the class to a support group, finding it therapeutic.

It was more of a type of a powwow... Like all at the same level where we men just have a barbershop meeting. (African American participant, aged 50)

I didn't have a lot of friends. Mostly, I had people at church or people I fellowship with. But these guys motivated me. They laughed at our situation. They helped me laugh at my situation, and it made me want to come here every week, because I knew I was gonna be able to laugh. It wasn't a tragedy anymore. We wasn't doomed. There was hope. Everything negative was replaced with something positive every week that we came. (Focus group participant)¹

Like our other issues and even issues of race came out a lot since we were mostly–I'm Mexican and the rest of the guys were African-American so it was interesting to be in a space where it was just us and not–there was one white person, but he was usually late or didn't show up, so I think it helped that it was mostly people of color. (Latino participant, aged 38) One individual noted that sporadic attendance in his group posed a challenge to building connections, describing a different dynamic from what was experienced in other groups.

What's challenging is there wasn't a lot of consistency, so folks dropping in and out...yeah so you didn't really get to fully know people. (African American participant, aged 50)

The male coaches, selected and trained to facilitate Power Up for Health, were considered key to program successes and challenges. Generally, participants found the coaches to be highly motivating, referencing their ability to make the material relatable and incorporate hands-on learning. Three of the four coaches had personal experience with diabetes or weight issues, and drew on these personal experiences when leading the class. This personalization was considered motivating. In addition, it engendered a sense of support among the groups. There was a limited pool of qualified male coaches to facilitate the program, which posed a few challenges for the pilot study, including questions of fidelity to the curriculum and the program overall, as referenced in the last quote below. It is important to note that this feedback was limited to only one of the four coaches.

I think [the facilitator] also being diabetic was really great, because it was someone that we can associate with and kinda get an understanding of what his circumstances have been. (Latino participant, aged 45)

He knows what he's talking about, and he helps you out. He sets himself as an example, and he gives us details that were good for him. (Latino participant, aged 56)

He was cool but he just wasn't really about this program, you know? He was like, "Oh, you gotta eat six eggs in the morning, and this, dada." And I was like, what are you talking about, man? Well, you know, he was just very strong on workout meals. (Focus group participant)

Coaches (one Latino and three African Americans) were also able to use their shared race and ethnicity to strengthen the curriculum and make it more culturally appropriate.

I think that we had a sometimes hard time relating with some of the examples...That's where the coach was good because the coach will bring it to [our tastes] – especially for black people, for African-Americans – like this [is a] thing we eat, we like these kind of foods. And so yeah, the coach was good at that, at making it more relatable to us and he was also the same age. (Latino participant, aged 38)

"The knowledge was a tool for me"— Knowledge gained

Participants described important shifts in their diet as a result of the program, including an increase in vegetable, fruit, and water consumption (see Walker et al., 2018 for additional information on change in dietary habits). Participants connected these changes to concrete skills and knowledge gained during the program, such as greater awareness of portion sizes and increased comprehension and use of nutritional labels. Participants described sharing knowledge gained from the class with family and friends. One participant described increased empowerment related to food, specifically asking questions and making requests of local food vendors to offer healthier options—something he had not considered prior to the program.

My eating habits have changed. I've been eating a lot more vegetables and fruits and things are a little bit healthier for me, not eating so much packaged food and drinking a lot more water; which I never used to drink water before. (Latino participant, aged 45)

Now I look at what I eat more before I eat it, like I look when I'm buying something, I see the calories and fat and I calculate it. And, I start knowing in my head more or less when something is truly risky, and especially like cheese and all that. And, I eat less of that stuff. (Latino participant, aged 38)

Yes, I was addicted to soda, Coca Cola, and snacks, I've consumed them my entire my life. But I never stopped to see the labels, which is what I learned with the program, in which the labels clearly state what calories and carbohydrates are... The program teaches me how many calories I should consume in one day. Just by knowing that the snacks and the soda double my calorie consumption, and those calories are converted into fats and sugars – knowing that helps me a lot. (Latino participant, aged 42)

What keeps me motivated is the tools, and the knowledge was a tool for me. So knowing how to get through certain situations, like going to a restaurant and asking for the to-go [box] before you even start eating, so you can put half of it away. I even went to my bodega and asked them to get diet drinks, 'cause they had not one diet drink in there. I didn't know until this program taught me, you can change your surroundings...So, just having that knowledge,' cause men go around acting like they know everything and don't like to ask. So, I learned how to ask. (Focus group participant)

Despite the many positive behavioral changes, participants also noted several continuing challenges. *Power Up for Health* participants discussed difficulties tracking their food intake, despite the recognized benefits of doing so. Participants also described challenges in the sometimes dramatic shifts in diet that were required, as many had very unhealthy diets and were relatively unfamiliar with the foods now recommended to them. A few examples of previous unhealthy eating behaviors described by participants included being "addicted" to soda and junk food, eating food very late at night, drinking large amounts of beer, and eating hamburgers and French fries regularly. Meal preparation was considered a challenge, with some participants having little experience in cooking their own meals. Others had little control over food purchases, preparation, and service, not being the primary cook in the home.

The takeaway from my participation in this program was having an accurate or a better picture, understanding of what my daily intake was like, and probably for the last 15 or 20 years, and seeing how that, over that period of time, put me where I am. Most difficult, most beneficial. (Focus group participant)

What I disliked the most was they started to take food off my plate. They started taking all my great meat covered with cheddar cheese, and my pizza with six different cheeses on it. And I mean, I was hurt. And they started replacing it with stuff like broccoli and all these other – green kale. What's that? A kind of disease? And all kinds of green things. (Focus group participant)

I'd say that a challenge is changing a routine for the rest of your life, and stop eating things you like for healthier things. That is a challenge. But in the end, at the moment in which the instructor explains it, you understand it, and say, "Wow, I was poisoning myself. I was eating things that are incredibly harmful." (Latino participant, aged 42)

In the beginning because my mother-in-law is always cooking, and always cooking different foods. So she was getting upset because I told her I couldn't eat so much; that I didn't want to. So she thought that I didn't want to eat her food. That wasn't it. I was explaining that to her, and in order for her to understand, it was a problem. Oh, my God, it was a big problem. And my wife, she didn't control it, I told her "Serve me a little bit" and like – following the diet, and now I serve myself. (Latino participant, aged 56)

Similar to eating behaviors, participants described positive changes in their physical activity habits. Most frequently, they discussed making physical activity a greater part of their everyday routine, including taking stairs, walking, and biking with more regularity. The program incentives, including a pedometer and water bottle, were described by one participant as a good motivator in making these healthy behavior changes.

I'm walking more because I'm taking those habits. I'm leaving the car farther away. I'm using the stairs instead of the elevator. (Latino participant, aged 42) So even though I haven't increased my gym activity, I make more choices to walk home from work, or I don't take the elevator fully up to my house. I take the stairwell, that kind of stuff. (African American participant, aged 50)

Now, if I have to go down a few blocks, I'll just walk there and leave the car. That helps me a lot, too. I feel better now. Wow, 100 percent better. Compared to how I was, wow. (Latino participant, aged 56)

He gave us tools. He gave us [a pedometer]. Listen, that inspires you to do more every time you step. Say 500 steps this day, then the next day, you want to do 600, then the next day, you want to go as high as you possibly can. Then you want to see how far and how many steps you can do a day. He gave us water bottles. And that's inspiring, to drink more water, to know you carrying something around where you can drink water. Then he started giving us tools, and the more tools, he gave us, the more excited I was. (Focus group participant)

Initially, the research team assumed that holding the classes at recreation centers with fitness equipment and exercise classes, and providing participants with center memberships, would encourage them to exercise at the centers. However, few of the men indicated that they had used the recreation center facilities or that they preferred the recreation centers as the site of the program. Participants suggested, however, if part of the class time was allotted to exercising they might have started to use the facilities on their own as well.

The Parks Department recreation center was convenient to my work and to where I lived and actually did introduce that facility to me as a possible resource for the future. But, if it was at a church basement or in a school or somebody's apartment, I don't think it would have made much of a difference. (African American participant, aged 50)

I appreciate that freedom and opportunity that having a membership to so many different Parks and Recreation sites affords me. I appreciate that, but it hasn't really become a change in my life. (Focus group participant)

One thing that I wish we had done more is going to the gym, because we were gonna go, make some classes short to go to the gym is right there...I think that because he let classes go long and we ended up not having time to do that. I think...that would have motivated a little bit more to follow through with exercise and take time from the class to go up to the gym that's there, and I think he said he wanted to do it and we never got a chance to do it. (Latino participant, aged 38)

Participants spoke about several common challenges in getting consistent physical activity, such as time constraints, feeling too tired or unmotivated after work, and physical limitations due to injuries. Participants also noted that it was difficult to get back on track with their exercise routines if they missed a few *Power Up for Health* sessions due to work, holidays, or personal obligations (the sessions for the first two groups went through Thanksgiving, Christmas, and the New Year holiday).

"Things that help take the concepts off the page"—Recommendations

Participant recommendations for program improvement revolved around making the class more interactive. Nearly half of the men that were part of the interviews and focus group recommended that exercising as a group should be a regular or semiregular component of the sessions. There was also a desire to see more practical tools for menu planning, including cooking demonstrations. Lastly, participants recommended linkages to outside resources (e.g., trainers, running club) that could help participants sustain healthier behaviors.

The only thing I can think of is like I said, just adding in like maybe having an additional person come in who's more on the workout side just to show us which workouts would be better. Like I know that the facilitator who took us to the gym explained most of the machines to us and explained to us what their functions were, but I think giving us an overall, maybe like a workout class or something like that that we can also join to have us start getting motivated into the workout piece. (Latino participant, aged 45)

I think the program in itself is very passive and so if there is a way where you can... like I'm a tactile person. I'm engaged by participating and active involvement, that kind of thing. So maybe like giving us a chance to do an exercise routine together or when they gave us the gym pass maybe some time with the trainer, so we could get used to the equipment and kind of get acclimated to the gym environment that was there. When we started talking about different food choices, maybe there's a cooking demonstration or maybe there's things that help take the concepts off the page, give you a chance to kind of try them out so you can gain some confidence around implementing some of these things. (African American participant, aged 50)

I do wish that there were meal plans involved in the education. Give us ideas of-or tell us to go buy a meal plan. I know it's hard 'cause then you'd have to individualize it for everyone else, but I think that was the most challenging, was planning out your meals. So I think there could be more information about that. (Focus group participant)

Yes, connecting, I think on that like after the program, like ways to be plugged into other things instead of just the gym. For example, like you can have guest speakers...there is this program that's for runners in New York City that is actually free if you have your New York ID card. So, like someone that could come in and talk to us about the program, and then you just pass information that we can plug in after the program. (Latino participant, aged 38)

Discussion

Power Up for Health was designed to engage men at risk for diabetes from low-income NYC neighborhoods. Men are underrepresented in diabetes prevention programs; targeted approaches such as Power Up for Health may be needed to increase levels of engagement. Participants in the program reported positive perceptions, noting the value of the all-male group, which facilitated a supportive space for disclosures and discussion of behaviors that might not have occurred in a mixed-gender context. These sentiments echo the need to consider masculinity/manhood as an important health determinant when planning for and implementing health programs (Griffith, 2015). Participants also described positive relationships with the male coaches, who were seen as both peers and role models that participants could connect with and learn from. These findings lend support to the concept that the "use of a single-gender and culturally responsible model of prevention... is critical to health promotion and disease prevention" (Treadwell et al., 2010) for men of color, particularly for those living in low-resource neighborhoods. While the overall weight loss experienced by Power Up for Health participants did not meet NDPP targets, it was consistent with the average weight loss experienced by NDPPs in the United States (Ely et al., 2017).

Additionally, participants reported positive changes to their diet and levels of physical activity, including an increase in consumption of produce, a greater attention to reading labels and portion size, a reduction in drinking sugar-sweetened beverages, and increased physical activity. Behavioral changes reported in the focus groups and interviews are supported by the results of the pre- and post-surveys done as part of the program, as reported elsewhere (Walker et al., 2018). The continued challenges to healthy eating reported by *Power Up for Health* participants, such as having little control over meal preparation or not having the necessary skills to prepare healthy foods, are similar to findings in other male-only focus groups regarding health behaviors (Caperchione et al., 2012).

While there was a concerted effort on the part of the project team to incorporate recommendations and guidance from the target population and those who serve them in the development of *Power Up for Health*, there were still a number of implementation challenges. For the majority of our pilot sample, having the program in NYC Parks' recreation centers and providing a complementary 6-month membership to these centers did not result in use of the facilities for exercise as envisioned. Participants reported that building an exercise component into the sessions may have led to greater use of recreation centers.

Limitations

It is important to note that the CDC updated the NDPP curriculum midway through the study. Power Up for *Health* is based on the 2012 NDPP curriculum, rather than the update, which is known as Prevent T2. Participant comments and recommendations that are specific to the original curriculum (e.g., too much emphasis on tracking fat in foods) are less relevant going forward. Additionally, these qualitative findings are based on a small number of interviewees and focus group participants—and did not include those participants who dropped out of the program. Although those who dropped out were not demographically distinct from those who completed the program (see Walker et al., 2018), we were unable to learn why individuals dropped out. Finally, the focus group and interviews were done shortly after the completion of the program; therefore, they do not capture insights related to the long-term impacts.

Conclusion

Findings from our *Power Up for Health* pilot suggest this NDPP adaptation for men from low-income communities was acceptable to men and facilitated behavior change and discussions that might not have occurred in a mixed-gender group. Utilizing a mixed-methods research approach—with flexibility (i.e., focus groups, as well as interviews) to engage English- and Spanish-speaking participants living far from one another—provided a more nuanced perspective on how this pilot adaptation of the NDPP was received by participants. However, due to the small size of the pilot, additional mixed-method NDPP adaptation studies are encouraged to better understand whether this is an acceptable, effective and sustainable model for preventing or delaying diabetes in men, particularly men of color.

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Note

1. Participants could not be identified from the focus group transcripts. Demographic information is therefore absent.

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