

Acceptability of the POWERPLAY Program: A Workplace Health Promotion Intervention for Men

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Abstract

The workplace health promotion program, POWERPLAY, was developed, implemented, and comprehensively evaluated among men working in four male-dominated worksites in northern British Columbia, Canada. The purpose of this study was to explore the POWERPLAY program's acceptability and gather recommendations for program refinement. The mixed-method study included end-of-program survey data collected from 103 male POWERPLAY program participants, interviews with workplace leads, and field notes recorded during program implementation. Data analyses involved descriptive statistics for quantitative data and inductive analysis of open-ended questions and qualitative data. Among participants, 70 (69%) reported being satisfied with the program, 51 (51%) perceived the program to be tailored for northern men, 56 (62%) believed the handouts provided useful information, and 75 (74%) would recommend this program to other men. The findings also highlight program implementation experiences with respect to employee engagement, feedback, and recommendations for future delivery. The POWERPLAY program provides an acceptable approach for health promotion that can serve as a model for advancing men's health in other contexts.

Keywords

health promotion, men's health, occupational health, health behavior, gender, intervention

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Men experience high rates of chronic illness in northern parts of Canada (Statistics Canada, 2013), and men access health services at low rates (Smith, Braunack-Mayer, & Wittert, 2006). Low uptake of traditional health services has prompted initiatives that aim to bring services to where men gather (Kerr, 2011). Within this context, the workplace has been recognized as a promising setting for implementing wellness initiatives with men (Robertson et al., 2015). Yet men represent a low proportion of participants in workplace health promotion interventions (Robroek, van Lenthe, van Empelen, & Burdorf, 2009) as well as in community-based lifestyle interventions (Pagoto et al., 2012).

Recognizing the knowledge gap in regards to engaging men in lifestyle behavior changes, a strength-based framework (focused on the positive aspects of masculinity) to build men's health has been advanced (see MacDonald, 2016). In this regard, several recent studies

have reported an increase in the use of gender-sensitized approaches that work with, rather than attempt to change, masculine ideals, prompting significant self-health efforts

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among men (Bottorff et al., 2015; George et al., 2012; Taylor et al., 2013). For example, UK-based football training programs have attracted men to make changes to increase healthy eating and physical activity levels when offered in conjunction with professional soccer clubs (Gray et al., 2013; Pringle et al., 2014). An Australian workplace-based weight loss program designed to engage male shift workers, *Preventing Obesity Without Eating Like a Rabbit* (POWER), has also reported success for engaging men to increase physical activity and decrease body weight (Morgan et al., 2012). Another gender-sensitized Australian information technology-based intervention, ManUp, was effective for improving physical activity among middle-aged men (Duncan et al., 2014). In all of these programs, the environment and content was highly acceptable to participants, providing evidence that men will engage in health promotion when the locale and context is deliberately normed as a masculine ideal.

Given evidence is accumulating that gender-sensitized interventions resonate with men, a workplace health intervention targeting physical activity and healthy eating called POWERPLAY was designed for men in northern British Columbia (BC), Canada (Caperchione et al., 2015). Implementation of the POWERPLAY program involved on-site launch and recruitment, along with educational materials, workplace incentives, and two 6-week friendly competitions ("challenges"). Promotional posters were used to advertise and peak interest in the upcoming program, and the launch events included healthy food and health screening (blood pressure and health advice from registered nurses). Educational materials were developed to appeal to working men, and included a "playbook" (small spiral bound book of information about each of the two challenges along with tips for increasing physical activity and healthy eating), 10 weekly informational posters and 10 toolbox talks (i.e., prepackaged informational presentations for the worksite leads that included key messages, ideas for displays/activities, as well as soundbites). Workplaces were encouraged to offer prizes for challenge participation, and to consider making healthy choices easier (e.g., offering bowls of complimentary fruit and making lasting changes to support healthy living such as installing bike racks, etc.). The first challenge (Step up) was a step challenge where men were provided pedometers and competed in teams to virtually travel around a map of northern BC. The second challenge (Playoff) was hockey themed, where men competed to earn goals for their team by engaging in moderate to vigorous physical activity outside of work and meeting specific healthy eating goals (e.g., eating five vegetables or fruit in a day). The POWERPLAY program was delivered in four male-dominated worksites in northern BC, including two transport companies (Site A and B), a regional municipality (Site

C), and a shipping terminal (Site D) over a 5-month period. The workplaces determined which components of the POWERPLAY program were implemented, and who would facilitate program implementation, but the POWERPLAY team encouraged the use of multiple program champions and provided consultative support. See Table 1 for an overview of program components implemented by worksite. The effects of participation in the POWERPLAY program on physical activity levels have been previously reported (Caperchione et al., 2016; Johnson et al., 2016).

In order to comprehensively evaluate the design and implementation of the POWERPLAY program, quantitative and qualitative data were collected from participants and worksite leads in order to (a) assess program acceptability reflected by employee engagement and perceptions of POWERPLAY and its influence in the workplace, and (b) gather recommendations for program refinement. The aim of the present study was to use findings to inform further development of workplace health promotion programs for men.

Methods

Study Design

A mixed-method study design (Morse & Niehaus, 2009) was used and included end-of-program survey data collected from 103 participants in the POWERPLAY pilot study, supplemented with semi-structured interviews with workplace leads ($n = 4$) and informal field notes collected by project team members (e.g., visual observations as well as feedback collected from meetings with workplace representatives) during program implementation to provide a more comprehensive understanding of program experiences. These three methods are integrated in the results section to provide a detailed picture of employee engagement, feedback on the program, and recommendations for future program delivery. The study protocol was approved by the University of British Columbia Behavioural Research Ethics Board (#H13-02408) and the Northern Health Research Review Committee (RRC-2014-0015).

Sample

All men from each of the study sites were invited to complete the telephone post-program survey. Verbal informed consent was obtained. A total of 103 men completed post-implementation surveys, including 10 men who did not participate in either of the two program challenges but did participate in the launch event and health screening and/or reported receiving a playbook, pedometer, educational resources and fruit. Participants were evenly distributed

Table 1. Summary of POWERPLAY Program Facilitators and Components Implemented by Worksite.

POWERPLAY component	Site A (transport company)	Site B (transport company)	Site C (regional municipality)	Site D (shipping terminal)
Program facilitator(s)	Female administrative assistant facilitated all aspects of program implementation, with support from management	Male driver supervisor facilitated implementation of challenge #1, and female accounting clerk facilitated implementation of challenge #2. Implementation was overseen by the workplace health and wellness committee	Female human resources advisor facilitated program implementation with the support from identified team leaders at each of the 6 buildings	Female occupational health and safety coordinator along with her manager facilitated program implementation
POWERPLAY promotional posters	Yes	Yes	Yes	Yes
POWERPLAY playbooks	Yes	Yes	Yes	Yes
POWERPLAY Challenge 1 (step up)—launch	Food, health screenings, and free water bottle for signing up	Food, health screenings and draw prize for signing up	Food and health screenings	Food and health screenings
Challenge 1	Used pedometers	Used a combination of pedometers and FitBits	Used pedometers	Used pedometers
Friendly competition based on step counts	Competed as a workplace against site B	Competed as a workplace against site A	Competed in teams based on job site	Competed in teams determined by shift
Challenge 1	Circulated tips from two toolbox talks and	Sugary drink display	Not utilized	Not utilized
Toolbox talks	sugary drink display			
Challenge 1	Printed and used as posters in workplace	Electronic versions were included in slideshow at workplace and printed as posters	Emailed to employees	Printed and posted around worksite
Informational handouts				
Challenge 1	Large print map was displayed in a central location	Digital version of the map was displayed on a screen in the dispatch room	One large laminated print map was displayed in one of the six buildings	Large print map was displayed in a central location
Tracking map (great northern circle route)				
POWERPLAY Challenge 2 (POWER playoff)—launch	Food provided	Food provided	No food, soft-launch	No launch
Challenge 2	Competed as a workplace against site B	Competed as a workplace against site A	Competed individually	Competed individually
Friendly competition based on achieving healthy eating goals and physical activity				
Challenge 2	Not utilized	Key messages from toolbox tips added to rotating slideshow	Not utilized	Not utilized
Toolbox talks				
Challenge 2	Printed and used as posters	Printed and used as posters	Emailed to employees	Emailed to coordinators, distribution unknown
Informational handouts				
Challenge 2	Large print map was displayed in a central location	Small print versions were displayed around the worksite	Not utilized	Not utilized
Tracking map (hockey rink)	Weekly fruit basket provided during program challenges and occasionally after challenge completion. Plans to put in an outdoor shelter structure	Weekly fruit basket provided during program challenges. Future plans for basketball hoop and bike rack	Unknown	Weekly fruit basket provided during program challenges. Plans to put in a designated walking path. Considering fruit baskets in future plans
Environmental/policy changes				

Table 2. Characteristics of Male Employee Participants of the POWERPLAY Program ($n = 103$).

	<i>M (SD)/%</i>	<i>N</i>
Age (range: 18–66)	45.8 (12.9)	
Ethnicity		
Caucasian	82.5%	85
First Nations	4.9%	5
Metis	6.8%	7
Other	5.8%	6
Marital status		
Married	62.1%	64
Common-law relationship/live in partner	19.4%	20
Single	15.5%	16
Separated/divorced	1.9%	2
Widowed	1.0%	1
Employment status		
Full-time	97.1%	100
Part-time	1.9%	2
Summer work	1.0%	1
Household income		
>\$100,000	56.3%	58
\$80,000-99,999	15.5%	16
\$60,000-79,999	15.5%	16
<\$59,999	7.8%	8
Unknown (no response)	4.9%	5
Occupation		
Truck driver	31.1%	32
Tradesperson (e.g., mechanic or heavy duty mechanic)	23.3%	24
Heavy equipment operator	15.5%	16
Manger/supervisor	9.7%	10
Firefighter/fire chief	4.9%	5
Other (e.g., laborer, prison guard, lifeguard, first aid attendant, etc.)	15.5%	16
Work schedule		
Works some nights	66.0%	68
Works a rotational shift pattern	67.0%	69
Works some weekends	70.0%	72
Works overtime sometimes	75.7%	78
Hours worked in a typical week	48.99 (11.9)	

across the 4 worksites (21.4% Site A, 26.2% Site B, 21.4% Site C, and 31.1% Site D). Details about participant recruitment and a flow chart of participation numbers at each stage have been published previously (Caperchione et al., 2016; Johnson et al., 2016). See Table 2 for a summary of participant demographic characteristics.

Workplace representatives who facilitated implementation of the program were invited to participate in interviews, and provided signed informed consent. In most of the worksites, multiple individuals assisted with program implementation. For Site A, the representative was a

female administrative assistant. For Site B, a male driver supervisor oversaw the implementation of the first POWERPLAY challenge, but a female accounting clerk facilitated implementation of the second challenge and completed the post-program interview. In Site C, the program facilitator and interview respondent was a female human resources advisor, and in Site D, a female occupational health and safety coordinator facilitated the program implementation and completed both mid-and post-program interviews.

Data Collection

Post-Program Employee Survey. A computer-assisted telephone survey was used to collect post-program satisfaction. For this survey, men were asked several 5-point Likert scale questions as well as open-ended questions. Questions and response scales are provided throughout the results section.

Workplace Lead Interviews. Semi-structured individual telephone interviews were completed with representatives from each workplace at both mid-point ($n = 3$), and post-program implementation ($n = 4$). The interviews were conducted by a member of the research team. The interviews focused on the following topics: implementation experiences with the POWERPLAY program, male employee response to the program, program support and communications, and workplace changes prompted by the program.

Field Notes on Program Implementation. Field notes were recorded by members of the research team involved in supporting implementation of the program following the launch events, site tours, and meetings with employers throughout the program implementation.

Data Analysis

Descriptive statistics generated in IBM SPSS Statistics 24 were used to describe the sample and summarize survey responses to questions with Likert scales. Employee responses recorded for each of the open-ended questions were reviewed. Similar responses for each question were grouped and summarized, and representative quotes were identified. The interviews with workplace leads were transcribed verbatim and uploaded to NVivo 10. Following close reading of the transcripts, main topics were identified to develop categories included in the coding framework (e.g., acceptability of the program, implementation experiences, perceptions of effectiveness, and suggestions for improvements). All transcripts were reviewed and coded in NVivo using the coding framework. One of the seven transcripts was coded by two

trained coders to verify the coding framework reliability. Agreement was calculated in NVivo to be 98.5%, with a Cohen's Kappa of .67, characterized as substantial agreement (Landis & Koch, 1977). In addition, field notes recorded during implementation were reviewed using the same coding framework. Data coded to each category were analyzed inductively to identify patterns in semantic content, develop a thematic summary of the data, and select quotes to illustrate key findings (Braun & Clarke, 2006). Finally, coded narrative data from employees, workplace leads, and field notes were compared and contrasted to identify experiences related to POWERPLAY that were shared across sites, and to examine factors underpinning diverse experiences (Morse & Niehaus, 2009). Quantitative results along with qualitative findings were brought together to expand and enrich the description of implementation experiences with respect to employee engagement, feedback on the program, and recommendations for future program delivery.

Results

Employee Engagement

Overall the majority of employees perceived that their workplaces supported involvement in the POWERPLAY program, with 61 (60%) men rating this either a 4 or 5 on a 5-point Likert scale ranging from 1 (*not supportive*) to 5 (*very supportive*) ($M = 3.75$, $SD = 1.31$). However, a between-subjects ANOVA revealed that responses were significantly different according to worksite, $F(3, 97) = 5.72$, $p = .001$. Post hoc comparisons using Tukey's HSD test indicated that participants from Site B ($M = 4.44$, $SD = 1.01$) had higher ratings of support than those at Site A ($M = 3.36$, $SD = 1.56$) and Site D ($M = 3.23$, $SD = 1.22$). Ratings at Site C ($M = 4.00$, $SD = 1.07$) were not significantly different from the other three worksites.

Field notes recorded by team members also indicated variability in participation rates across the four workplaces, as well as some attrition during challenges. Observations suggested that employee engagement was influenced by the enthusiasm of employers and workplace leads, the amount of time workplace leads had to devote to implementing the program, and the quality of the relationship between employers and employees. In two of the workplaces collective bargaining was underway during program implementation and observations indicated that this was an influencing factor especially when these negotiations created tensions in the workplace.

Differences were also reflected in support provided to workplace leads charged with implementing the program. The estimated time worksite leads perceived that they spent delivering the POWERPLAY program varied between 2–3 hr (Site A, Site C) and 6–8 hr (Site B, Site D) per week. Based on field note data, program

representatives observed that workplace leads were sometimes charged with delivering the program while continuing with their usual work responsibilities. Finding time for program implementation, therefore, became difficult during particularly busy periods when workplace demands took priority. The POWERPLAY toolbox talks were not given at the worksites, even though workplace leads were given the tools and resources they asked for to do these brief informal presentations. Given time constraints, the leads resorted to circulating and/or posting weekly informational handouts.

Characteristics of the program that were viewed as effective in engaging men in the POWERPLAY program were the launch events, incentive prizes, and competitions. The launch events were viewed by the four workplace leads as being very successful and they pointed to the value of the health screenings and opportunities for friendly competition in motivating men to join the program.

Across all four workplaces, engagement in POWERPLAY was higher in the first challenge than the second. Based on field notes and feedback from survey respondents and workplace leads, this appeared to be related to the opportunity for men to capture objective measures of their own physical activity by using pedometers, the friendly competition the step challenge promoted, and the novelty factor of the POWERPLAY program.

Feedback on the Program

Overall, the employees were satisfied with the program (see Table 3). Confirming the qualitative findings, the first challenge was viewed significantly more favorably than the second challenge, $t(43) = 3.55$, $p = .001$. In addition, men were asked an open-ended question, "What can be done to keep men like yourself participating throughout a 6-week challenge?" Responses focused on the importance of competition and team spirit, incentives, reminders, and keeping things interesting/entertaining.

Employee feedback on what they liked most and least about POWERPLAY is displayed in Table 4. In open-ended questions, men expanded on how friendly competition brought people together to act on their health at work. For example, one truck driver from Site B explained:

It gave guys a really great idea and if they participated it was fantastic. It built up a little competition and some guys took it to heart and they did fantastic. It helped bring people together in the workplace.

Least liked aspects of the program related to perceptions that recording and tracking activities as part of the challenges were burdensome and sometimes lacked clarity. In particular, some men perceived that these factors contributed to the potential for dishonesty, especially in the

Table 3. Employee Perceptions of the POWERPLAY Program and Challenge Acceptability.

Question	n (%) in each response category					M (SD)
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
Overall, I was satisfied with the POWERPLAY program	0 (0)	8 (7.9)	23 (22.8)	46 (45.5)	24 (23.8)	3.85 (.88)
The program was geared toward men in the north	2 (2.0)	10 (10.1)	36 (36.4)	37 (37.4)	14 (14.1)	3.52 (.93)
The handouts provided useful information	1 (1.1)	4 (4.4)	30 (33.0)	34 (37.4)	22 (24.2)	3.79 (.90)
I would recommend the POWERPLAY program to other men	2 (2.0)	9 (8.8)	16 (15.7)	47 (46.1)	28 (27.5)	3.88 (.98)
	Not at all	A little	Some	A lot	A great deal	M (SD)
Did you like the Step up Challenge (#1)?	2 (2.2)	14 (15.6)	22 (24.4)	31 (34.4)	21 (23.3)	3.61 (1.08)
Did you like the Playoff Challenge (#2)?	3 (6.4)	8 (17.0)	14 (29.8)	12 (25.5)	10 (21.3)	3.38 (1.19)

second challenge with the manual tracking/recording of health food goals and the opportunity to include points for physical activities that were not captured with pedometers (e.g., swimming). While it appeared that the dual requirement for tracking food and physical activity made the second challenge more time consuming and less appealing for some men, equally important was that other men disliked having to change eating habits to successfully engage in the competition.

Field note data captured the importance of clarity and consistency in application of the rules with respect to the challenges. This was particularly evident because two workplaces (Site A challenged Site B) had decided to compete with one another in the challenges by comparing the overall progress of everyone in the workplace, and this was further complicated by having different program representatives working with each of the competing worksites. When challenges were run with teams within one workplace this problem was minimized as long as rules were consistent and clearly communicated to participants by the workplace leads. Workplace leads that were responsible for collecting and collating team member activities so that the progress of teams could be recorded on charts also experienced some challenges in collecting these data from employees in a timely way. In some instances, these difficulties and subsequent delays in updating team scores had the potential to lead to perceptions of unfairness among participants.

Despite these issues, overall workplace leads were also satisfied with the program, and the helpful support they received from the POWERPLAY representatives. Although there was consensus that having more support from the POWERPLAY team on-site for the program would have been beneficial, field notes by program representatives indicated that they believed less outside support may build capacity and sustainability within organizations for workplace health promotion.

Nevertheless, despite some variations in program delivery, workplace leads identified ways that the program had a positive impact on the entire organization. As the female administrative assistant who facilitated the challenges at Site A stated:

I think... even if people didn't sign up for the program necessarily, that healthy eating and exercising was more at the front of their mind because there were posters around and stuff and I think it was positive in the fact that it just got people thinking more about their health.

Moreover, the leads shared observations that indicated the potential for lasting change. For example, some men were seen wearing their pedometers to track steps long after the first challenge was over. Others observed the positive impact of the program on men's health and their lifestyle choices:

I've got guys who've actually quit drinking, I've got guys who've quit smoking...Guys that are still wearing their pedometers, there are tons of people who are still wearing them even though it doesn't apply to the second challenge. A lot of them started making healthier choices. Some groups [are] organizing sports events at the racket center. So there was a group text message being sent out and different departments were coming out to play including management which was pretty nice. A lot of people were requesting hikes and people started talking about the current things that we offer and if we could offer other things – people started generally talking more about wellness. (Site D)

You could see that they were striving to attain more goals. You know, fit that extra vegetable in, or whatever. I don't remember all their goals I was just doing cumulative totals. But, you could see progression in them. (Site B)

In terms of changes in their workplace following the POWERPLAY program, employee responses highlighted positive changes they observed (see Table 4). For

Table 4. Example Responses to Open-Ended Questions Gathering Employee Feedback on POWERPLAY and Workplace Changes Observed to Support Physical Activity and Healthy Eating.

What part of the POWERPLAY program did you like most? (n = 92)	n (%)
Pedometer/tracking progress	20 (21.7)
<ul style="list-style-type: none"> The encouragement to monitor progress. The [POWERPLAY] book and pedometer we got was really helpful. I really liked seeing how many steps I took every day Keeping track of my daily activity, how much I was moving around I liked the fact that you can log the steps to see how much you are going 	
Competition	17 (18.5)
<ul style="list-style-type: none"> I liked the competitiveness aspect of it in how you can challenge each other as teams The competition really motivated me. It kept me active The competition motivated me to keep going 	
The support/motivation to engage in health activities	15 (16.3)
<ul style="list-style-type: none"> I like that it encouraged activities and prolonged activities in the workplace The platform to watch something and get people involved The fruit tray that came when they showed up 	
The Step up challenge	15 (16.3)
<ul style="list-style-type: none"> The Step-up Challenge. It gave me an awareness of how much I walk compared to other people Step-Up Challenge. User friendly for men The Step-Up program. I like physical activity 	
That the program increased awareness and facilitated learning about healthy eating and physical activity	13 (14.1)
<ul style="list-style-type: none"> Learning about the food and exercise The kind of awareness of how much exercise is equal to the steps you take. It's very interesting The awareness that it raised since people normally don't think about stuff like that 	
Incentives/prizes	5 (5.4)
<ul style="list-style-type: none"> The prizes, the gift card Free hamburgers, the initial kick off was very positive, the concept was very good. The gift card was a good initiative 	
Team building/comradery	2 (2.2)
<ul style="list-style-type: none"> It got the guys together and active, and good team building At the beginning, there was good team spirit. Everyone was getting into it. There was good comradery 	
Other	5 (5.5)
<ul style="list-style-type: none"> Time of year I liked it all. It was pretty good all the way through I liked all of it 	
What part of the POWERPLAY program did you like least? (n = 50)	n (%)
Recording/tracking food & activity	16 (32.0)
<ul style="list-style-type: none"> Keeping track of what I ate because I couldn't remember it 3 days later when I had to report it The last one [challenge]—tracking every day, writing and recording information 	
Lack of clarity in challenge instructions and the potential for dishonesty	13 (26.0)
<ul style="list-style-type: none"> The way the icetime stuff was worded. Very hard to understand. It was too complicated for some of us. The points were hard to figure out I could write down anything I want. There was really no verification. It's a criticism but I guess you have to rely on people's good judgment I felt the last time that the people were jacking up their numbers 	
The playoff/healthy eating challenge	11 (22.0)
<ul style="list-style-type: none"> I didn't really like the Playoff challenge The food challenge Keeping me away from my red meat. I like my beef Eating my vegetables 	
The program was time consuming	3 (6.0)
<ul style="list-style-type: none"> The commitment. Time consuming 	
That it was held in the winter	2 (4.0)
<ul style="list-style-type: none"> Worst thing was the time of year. Winter is a tough time for especially the transportation industry 	
Other	5 (10.0)
<ul style="list-style-type: none"> The prizes or the salesmanship The surveys take up time and sometimes when they call I am sleeping All the meetings and when we had the lunches. I'm not a big group person Most of the handouts were kind of redundant The speed trap and the step up 	

(continued)

Table 4. (continued)

What part of the POWERPLAY program did you like most? (n = 92)	n (%)
Have you noticed any changes in your workplace, meant to improve employee physical activity, not including the POWERPLAY program? (if yes, explain). (n = 35)	n (%)
People are more active now	22 (62.9)
<ul style="list-style-type: none"> • Some people were going to the gym and some were going to play hockey • Instead of just leaving right after work, there is a group of guys. They do a lap around the building before leaving work. And they are truck drivers that sit all day • People seem to be exercising more • A lot more of my coworkers are walking 	
There is increased awareness about healthy living	4 (11.4)
<ul style="list-style-type: none"> • More awareness by all employees 	
A walking track, recreation center, or racquetball hall was installed	4 (11.4)
<ul style="list-style-type: none"> • They set up a place like a recreation center that is use for free at any time 	
A workplace health promotion program is continuing	2 (5.7)
<ul style="list-style-type: none"> • We had actually initiated our own healthy lifestyle initiative at our work 	
Other	3 (8.7)
<ul style="list-style-type: none"> • Improvement in attitude and outlook of employees • Communication • They have inspirational stuff put up. And they have videos that they play 	
Have you noticed any changes in your workplace, meant to improve employee healthy eating, not including the POWERPLAY program? (if yes, explain). (n = 33)	n (%)
Fruit basket is regularly available	10 (30.3)
<ul style="list-style-type: none"> • Weekly fruit baskets are being put out for employees • Our workplace started providing fruit 	
People are eating healthier now	8 (24.2)
<ul style="list-style-type: none"> • Some of the guys have changed their diets from fast foods to better eating • People are making an effort to eat more vegetables 	
More educational materials now	8 (24.2)
<ul style="list-style-type: none"> • The company has done a really good job. There is a TV screen in our dispatch area showing the amount of sugar in a bottle of juice, and other beverages, and other information • There are a few more posters around about healthy foods and proper meals, and posters that are encouraging sports, those kind of things 	
Healthier food is available (e.g., at meetings, BBQs)	5 (15.1)
<ul style="list-style-type: none"> • Weekly staff meetings—the snacks are more healthy • Lots of juices and milk instead of pop during our barbeque party • They are changing the selections on the vending machines 	
Incentives are provided to pack a lunch	1 (3.0)
<ul style="list-style-type: none"> • We have a lunch fitness program. Packing healthy lunches encourages everyone to eat healthy. There is a point system going. If you pack healthy lunches you get points and extra cash on your paycheck 	
A workplace health promotion program is continuing	1 (3.0)
<ul style="list-style-type: none"> • We had actually initiated our own healthy lifestyle initiative at our work, while the POWERPLAY program was going on. Our program augmented it 	

example, an appliance technician at Site C stated: “I see people talking more about the health benefits and doing activities.” Whereas, a heavy duty mechanic at Site B described a “lunch fitness program” introduced at his workplace to encourage healthy eating. Other men reported that there were concrete efforts in their workplaces to increase the availability of healthy food, with at least one employer continuing to provide weekly fruit baskets. Some employees also reported changes in their workplaces following POWERPLAY that would make it easier for employees to continue to be physically active, including the installation of a walking track, setting up

space for use as a recreation center and the addition of a racquetball hall.

These types of environmental or policy changes at workplaces to support healthy eating and physical activity were backed up by workplace leads. Three of the four workplace leads shared plans that included installing a basketball hoop and bike rack, continuing to offer fruit for employees, refreshing their existing health incentive programs, putting in an outdoor shelter and walking paths for employees to use on breaks, and plans to put in a gym when a new building is constructed.

Table 5. Example Employee Suggestions for Improving the POWERPLAY Program.

What suggestions do you have for improving the POWERPLAY program? (n = 52)	n (%)
Clarify instructions	11 (21.2)
<ul style="list-style-type: none"> • Make the challenges easier for everyone to understand. In laymans' terms • More guidelines and rules to make people stick to them. Too much open to interpretation 	
More competition/increase frequency of challenges	8 (15.4)
<ul style="list-style-type: none"> • Maybe get more challenges going • More competition perhaps. We men are very competitive with one another • Doing it more often. Do it annually 	
Allow more flexibility in program length and choice of different program activities	7 (13.5)
<ul style="list-style-type: none"> • The program should be more flexible and move on to continue • Maybe have different activities for the challenges • More than one activity 	
Incorporate electronic logging/app	5 (9.6)
<ul style="list-style-type: none"> • Create a phone app to record results. For example, an app could pull off the pedometer stuff automatically • If there was a way to submit the information online. That would have been more convenient 	
Keep it simple	5 (9.6)
<ul style="list-style-type: none"> • Make it less complicated. The information was sometimes a bit too much to remember all the time • Have more less time consuming activities 	
Better pedometers/add more equipment	4 (7.7)
<ul style="list-style-type: none"> • They could maybe take the pedometer one more step further to come with a wrist watch or a heart monitor • More efficient trackers 	
Provide more information/background about healthy living to motivate men /advertise the program	4 (7.7)
<ul style="list-style-type: none"> • Background information on purpose and health for men in the north, health risks 	
More support for health behaviors	3 (5.8)
<ul style="list-style-type: none"> • Have some kind of discount card for groceries, nutritional challenge. Deal card at Save-on or something like that 	
Consider weather/time of year	3 (5.8)
<ul style="list-style-type: none"> • Should be during summer months when one can be more active 	
Other recommendations	2 (3.8)
<ul style="list-style-type: none"> • Maybe the times you call for surveys • Maybe have partners, people teaming up and working together 	

Recommendations for Future Implementation

When asked what suggestions they had for improving the POWERPLAY program, the majority of employee responses centered on clarity of instructions, competition, and program flexibility (see Table 5). Although the program was structured to include competitions, some men recommended more competitions.

In reflecting on how the POWERPLAY program could be improved in the future, workplace leads focused on the key role of future implementers in the success of the program, and the need for implementers to be motivated, inspired, and have good rapport with employees. Workplace leads also suggested that having a dedicated workplace committee with employee, management, and union representatives would provide better support for program implementation, as the occupational health and safety coordinator from Site D explained:

I think next time around we would create a committee with union and employees. Get more people because we had people that made up the committee were – things went sideways in their department and they just didn't have the

time. So it was a lot of work for a few people and it's hard to stay motivated when you are so swamped and you're buried in stuff.

In relation to improving future program delivery, workplace leads universally liked a sugary drink display set up and attended by student nurses, and also pointed to the potential value of bringing in outside experts (e.g., dietitians, trainers) to support program delivery as well as maintain employee engagement and strengthen motivation “to learn more, do more.” (Site C).

I think if there would have been a dietician brought out, I think that would have gone a long way. If we would have had something like that or someone from sports to talk about different stretches or just something – I think that would have created some more interest (Site D).

There was also strong agreement that the challenges could be shorter (e.g., 4 weeks, instead of 6), and that the second challenge could be simpler, or combined with the first challenge in some way. One workplace lead (Site D) suggested:

I would say simplify it. It was just kind of a lot – you get a point for this you get a point for that and I think it was just too many. Like I understood why the points were there – to follow the food guide but I think just doing like a 30 day no junk food challenge or something like that. I think if it's going to be cardio, just keep it cardio or just keep it exercise – counting minutes. Just like simplify it – I think when we go too complicated we really get away from – I honestly think – cause like I even had a hard time keeping up with what I did.

Discussion

The purpose of the current study was to comprehensively evaluate POWERPLAY, a workplace health promotion program implemented in four worksites in northern BC, Canada to gather insights into acceptability and recommendations for program refinement. The current study findings provide further support for gender-sensitized health promotion interventions that resonate with men to enable their engagement and enhance acceptability.

In male-dominated workplaces it was expected the workplace leads implementing POWERPLAY would be men. However, women are often placed in positions responsible for administration, occupational health, or human resources (Statistics Canada, 2011), and this was the case in the current study. Congruent with long standing gender norms wherein women look after the health of men (Lee & Owens, 2002) this may have meant that POWERPLAY was especially acceptable to men by trading on such traditional gender relations. Building on this, the men as active participants in POWERPLAY, and women as overseeing progress and providing direction and adjudication, likely provided a platform for men to perform within a public masculine arena. For example, overall the competitive underpinnings of the challenges simultaneously promoted team performance while engaging men to practice healthier behaviors. Competition was highlighted as resonating with men, similar to other research where teamwork and camaraderie was seen as fostering group social support (Gray et al., 2013). Yet POWERPLAY's teaming approach also catalyzed the will of the group (and broader workplace cultures) to re-image masculine norms around healthy eating and active living, so that team, rather than individual, performances were key to shifting wider workplace cultures regarding men's health.

Nevertheless, variations were apparent in responses to and participation in the challenges. Men were not as engaged with the second challenge (Playoff) which involved points for healthy eating in addition to physical activity outside of work hours, as they were with the first challenge (Step up), for a number of reasons. A few men highlighted having to change their eating habits and eat more vegetables/less red meat as being one of their least

favorite parts of the program. It is possible that prompts to make changes in eating behaviors challenged working men's identities and deeply entrenched gendered food-related values (e.g., filling and fueling) that influence men's diet practices. Although the quantified tracking of physical activity using pedometers in the first challenge was well received by the men, when self-reporting of healthy eating behaviors was added in the second challenge, the dual recording requirements were perceived as onerous, tedious, and too complicated. Reliance on self-monitoring of dietary behaviors involved consciously and conscientiously keeping a manual record and this in addition to keeping track of physical activity likely detracted from the appeal of the challenge.

Employee recommendations focused on modifying the second challenge, and suggestions included a reduction in paperwork and tracking requirements, comparing the simplicity of a pedometer to the time consuming process of manually keeping records of healthy eating goals and physical activity (outside of work) in their POWERLAY Playbooks. Some men also suggested changing goals deemed outside the realm of possibility (e.g., alcohol-free day, standing more than sitting). Men may find the healthy eating challenges more appealing if recording goals were simplified with activities that have an element of fun and also add a measure of credibility such as sharing pictures of their healthy food choices or food labels, and/or pictures that demonstrate men's cooking prowess around healthy meals (that extend beyond the grill master stereotype). Using gaming strategies such as incorporating a selection of clear options that support healthy eating in a bingo card format and challenging men to complete the bingo card each week may also be more appealing to men. Other researchers have reported that blue collar working men preferred very specific food-based guidelines such as "Eat this or don't eat this" or "Drink less" (Collins, Morgan, Warren, Lubans, & Callister, 2011; Morgan et al., 2011) and responded favorably to humour that protected masculine connections with food (e.g., "you don't have to eat like a rabbit") (Kiefer, Rathmanner, & Kunze, 2005; Morgan et al., 2011). Simplicity of messages and self-monitoring and clear rules may be integral to success for engaging men in the competitive and team spirit of a health promotion program.

In samples of men working in male-dominated and primarily resource-based industries, it may be more than just a preference for simplicity, but a delicate balance around work life among a group of men doing significant overtime. The activities cannot be something else on top of a regular work day, but instead, must garner and capitalize on a collective culture toward doing something healthy for oneself. In this regard, following POWERPLAY it seemed that some workplaces

underwent changes that might be reasonably argued as garnering significant improvement in how men do health at work, suggesting that the POWERPLAY program provided a catalyst for sustainable workplace change.

Despite variations in implementation and levels of engagement, both employees and workplace leads reported positive outcomes that extended to the workplace culture, laying the foundation for lasting changes. Seemingly, the POWERPLAY program acted to raise awareness and normalize certain health behaviors in an environment where these behaviors may not have been traditionally prioritized or discussed. By demonstrating an investment in the health and well-being of employees through participation in the POWERPLAY program, employers promoted a culture where it was acceptable and encouraged to take responsibility for one's health.

In part, these lasting changes demonstrate the value of having workplace leads taking on responsibility of program implementation. The need for a designate outside support person to take up some of the inevitable workload that goes with leadership and management of a program such as POWERPLAY was also evident in the feedback from workplace leads. A tension existed in this regard because the support of workplace leads was crucial to men's participation, but the actual time required to organize, host, and promote the program had significant sustainability challenges. Other research has revealed similar feasibility concerns wherein "in house" organization of a program in addition to participation might be deemed too much for some workplaces ("administrative burden") (Wozniak et al., 2016). A defined partnership between program leads and outside representatives is an essential element in program sustainability. The use of financial incentives to encourage behavior change is recommended when these changes can be accurately measured (Lynagh, Sanson-Fisher, & Bonevski, 2013); however this can pose significant cost implications for a company adopting a workplace health promotion program. Investing in employee health may have the most impact when integrated with organizational policy and when embedded in a long-term employee health and wellness strategy.

If a program does reside within the workplace, the unique dynamic of each workplace should be considered when determining a workplace lead. Employer support for workplace leads is a critical component and clear roles and responsibilities should be established. Appropriate time must be allotted to adequately support the program, with careful consideration to existing responsibilities, work demand cycles, and holiday periods. It is clear that when program delivery is done as part of the workplace lead's existing role, it is more consistently and effectively implemented than when it is supported "off the side of the desk" or in addition to existing workload. Other considerations when choosing a

workplace lead are the power dynamic between program leads and employees, knowledge of program topics, and ability and willingness to facilitate content delivery.

Also important is providing time saving tools for leads to use, with options that are adaptable to different work contexts to enable their work. Given the preferred communication channels may vary between workplaces, resources should be available in various formats including print (e.g., lunch room handouts), video (e.g., break-room slideshow), audio (e.g., dispatch communication) or digital (e.g., email attachments). Further, efforts should be made to streamline and simplify the delivery or facilitation of any program content done by workplace leads as they may not have a background or experience with the topics. Indeed, program consideration should be given to the provision of a large variety of tools to enable workplace leads with differing backgrounds, levels of experience, and time available, concrete strategies for program implementation. Finally, flexible models to support program delivery that provide for varying levels of external support depending on employer needs (even if at a cost) will likely enhance program success.

Recommendations

In recognizing the value of workplace health promotion programs for men, there are a number of recommendations that should be considered for future development and implementation. Firstly, to overcome the administrative burden placed on many of the workplace leads, developing a workplace wellness committee would help to distribute the workload across a number of individuals. Getting male employees involved will also be beneficial to improving organizational culture as this provides an opportunity to play an active role in designing, implementing, and making decisions concerning these workplace health promotion programs (Caperchione, Reid, Sharp, & Stehmeier, 2016; Pronk & Kottke, 2009).

Given that the in-person, short toolbox talks were not consistently used, there is value in revising these tools to support their integration in busy worksites. One of the toolbox tools that was used successfully was the sugary drink display illustrating the sugar content of several popular drinks. That some men mentioned the value of display in their feedback on the program suggests that it is possible to provide clear health messages and information in worksites to support informal group conversations that hold potential for yielding new norms related to masculinity and health. Developing tools and resources that can easily be taken up by workplace facilitators who may lack specific expertise in health behavior is likely to support their use. The addition of outside health promotion experts who could assist with presenting some of the educational components and leading some of the activity

sessions could also increase knowledge, awareness, and engagement. For example, experts within local health authorities (e.g., registered dietitians, smoking cessation officers), local universities and colleges (e.g., kinesiologists, physical activity specialists), as well as not-for-profit (e.g., YMCA) and commercial entities (e.g., local fitness centers) are often willing to come in and present on a health topic or lead physical activity sessions as this provides an opportunity to build community engagement or to showcase their organization. Although men are traditionally less likely to access health services/providers (Smith et al., 2006), the success of the POWERPLAY health screening and workplace lead feedback suggests that bringing outside health experts into the workplace will be well-received by men.

The current findings also suggested that shorter 4-week challenges may better retain momentum than 6-week challenges—especially if the challenges were different to sustain men's interest and engagement over a longer period of time. Although some suggested combining the healthy eating and physical activity challenges, it may be important to keep these separate to heed advice to keep the rules of each challenge simple and reduce recording requirements. Further, allowing time in between challenges to celebrate achievements and build excitement again for the next challenge, perhaps with another launch event /follow-up screening, may also be helpful in sustaining men's engagement.

Lastly, similar to the POWERPLAY program resources and challenges developed for physical activity and healthy eating, additional educational resources and challenges could be developed for other health behaviors relevant to the workplace. For example, stress, mental health, smoking, and alcohol consumption are other health behaviors that require attention as incidence of these behaviors are high in jobs of high pressure, with excessive hours and that are physically demanding, such as male-dominated jobs like construction, trucking, mining, and manufacturing (Kim et al., 2008; Lallukka et al., 2004; Lee et al., 2014; Radi, Ostry, & Lamontagne, 2007). Given the positive responses concerning the POWERPLAY resources and the friendly competition enjoyed by the men, developing additional resources and challenges for other health behaviors would be the next step to refining and expanding POWERPLAY and other workplace health promotion programs for men to encompass all facets of workplace health and wellbeing. Although the POWERPLAY program was developed for men in northern British Columbia where men are employed in transportation and resource-based industries (e.g., mining, forestry, oil, and gas), given its acceptability to the diverse workplaces involved in implementing POWERPLAY in this study, the program should be pilot tested in male-dominated industries in other regions to

assess the potential reach of the program in advancing men's health both in terms of place and acceptability to diverse groups of men and masculine norms.

Limitations/Strengths

The findings related to program acceptability are based on men's feedback along with insights that emerged from interviews with workplace leads and field notes recorded during program implementation at four male-dominated worksites in Canada, and may not be transferable to other types of settings and male-dominated industries. The survey sample included only men, and the majority of participants were Caucasian, with household incomes greater than \$100,000, limiting what can be generalized to other populations. The cross-sectional nature of the study also limits what can be claimed about long standing changes to men's healthy eating and active living as a by-product of the POWERPLAY program. In turn, these limitations provide direction for future studies which might include longitudinal and multi-site research capable of advancing current insights amid providing additional information for program refinement.

Conclusions

Altogether, these findings advance the men's health promotion field and have implications for other programs designed to resonate with and engage men. It is clear that the workplace provides an important forum for engaging men with their health. Workplace spaces can be particularly appealing to men, offering familiar avenues and environments to participate, while circumventing potential feelings of weakness or indebtedness so often associated with seeking out community or professional health care services. The POWERPLAY program provides an acceptable and feasible approach for health promotion that can serve as a model for advancing men's health in other contexts.

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