‘Champion’ behaviour in a community obesity reduction program:

Feedback from peers

Authors:
Samar Aoun
Kirby Sainsbury
Barbara Mullan
Shaouli Shahid

1. School of Nursing and Midwifery, Curtin University, Perth, WA, Australia
2. School of Psychology and Speech Pathology, Curtin University, Perth, WA, Australia
3. Western Australian Centre for Rural Health, University of Western Australia, Perth, WA, Australia

Corresponding author: Prof. Samar Aoun, School of Nursing and Midwifery, Faculty of Health Sciences, Curtin University, Perth, Australia. Phone: +61 419911940; email: s.aoun@curtin.edu.au

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ABSTRACT

Current interventions to reduce obesity have limited success. This study aimed to determine the characteristics of successful champions (non-health professional/community leaders) and to assess how these relate to acceptability ratings of an obesity reduction intervention – the Waist Disposal Challenge (WDC). Two hundred peer participants completed questionnaires. Positive ratings of champions’ performance were significantly correlated with perceptions of the success and suitability of the WDC. The qualitative feedback concurred that the program prompted weight loss and was a positive social experience which resulted in actual behavioural changes. Selecting suitable champions is likely to influence the success of such community health programs.

Key words: weight loss, obesity reduction, nutrition, physical activity, champions, behavioural change.
INTRODUCTION

Obesity and related chronic diseases are concerning and increasing major public health issues (Marks, 2015). Strategies that lead to the success and maintenance of positive lifestyle changes therefore continue to be a major focus for alleviating the burden of these diseases (Jordan and Osborne, 2007; Commonwealth of Australia, 2008; Bury and Ink, 2005; Lorig et al., 2005; Eakin et al., 2007; Kelly et al., 2003; Lindner et al., 2003; Department of Health, 2007). Over the past few decades, health service delivery has begun adopting a proactive, multi-disciplinary care model with an increased emphasis on prevention and management of chronic disease. The importance of enabling and making use of community resources and support systems, and developing partnerships with the stakeholders in the community have also been recognised (Eng et al., 2009; Foster et al., 2008). In particular, initiatives led by lay health advisors or champions (also referred to as, peer support leaders, natural helpers, or community health ambassadors) have received increased recognition as an influential strategy for chronic disease self-management, and health promotion at the community level (Fleury et al., 2009; Quinn and McNabb, 2001; Rhodes et al., 2007; Eng et al., 2009; Pullen-Smith et al., 2008).

Strengths of such models include the fact that champions belong to the communities in which they work (e.g., ethnically, socio-economically, and experientially); they are the “insiders” in their communities, and possess profound understanding of the community’s internal systems, potency, failings, and needs (Eng et al., 2009). Champion-led interventions build on community or organisational resources and strengths, and promote the influence of naturally existing sources of community and social support. Further, champions are able to facilitate access and implementation of programs to hard-to-reach populations or at-risk populations, as they serve as peer role models and promote community capacity and ownership, as well as improving the cost effectiveness of interventions (Quinn and McNabb,
Typically, Champions are recruited based on their level of involvement in the community, and their demonstrated leadership and interest in health-related issues. Without requiring formal qualifications as a health care professional, they are trained to provide program information, support, and motivation for ongoing participation of their community partners or peers in the target program (Fleury et al., 2009; Rhodes et al., 2007). Champion-led interventions potentially offer an effective means of addressing health-related attitudes, beliefs, and social norms at the social network and community levels (Fleury et al., 2009); Indeed, successful implementation of such models at the community level has been reported in several studies (Fleury et al., 2009; Rhodes et al., 2007; Quinn and McNabb, 2001; Andrews et al., 2004; Debate and Plescia, 2004-2005). Examples include a workplace-based study that resulted in improved nutrition and physical activity behaviours among female blue-collar employees in North Carolina (Campbell et al., 2002) and an LHA-delivered programme that resulted in a mean weight loss of 8.3 pounds in African American female participants (Quinn and McNabb, 2001). A systematic review conducted to identify the effectiveness of peer-based interventions on health-related behaviours in adults have found that peer-based interventions improve access to health care services, provide support, improve self-efficacy and self-confidence, facilitate involvement in self-care activities, increase physical activity and increase cost effectiveness (Webel, Okonsky, Trompeta, & Holzemer, 2010). Intention, self-efficacy and habit have all been identified as important in adhering to healthy diets (Kothe et al., 2015).

One particular question of interest involves determining the optimal characteristics of a champion that contribute to the success and maintenance of a program within the context of the community they serve (Aoun et al., 2009; Stahl and Hill, 2008; Aoun et al., 2013a; Aoun et al., 2013b).
While no measure has been developed specifically to identify characteristics or qualities of successful champions in health promotion or community settings (Stahl and Hill, 2008), one measure has been reported for champions in organisational settings (Howell and Shea, 2006; Howell et al., 2005). In order to extend the knowledge of what champions do to promote innovations, and how their behaviour influences the performance of an organisation or project, Howell et al. (2005) developed and validated a measure of champion behaviour for business organisations. The Champion Behaviour Questionnaire (CBQ) is composed of three subscales: 1) expressing enthusiasm and confidence about the success of the innovation; 2) persisting despite adversity; and 3) getting the right people involved. The Howell et al. study (2005) found a positive relationship between champion behaviour and project performance; however, they also reiterated the need for scale validation with other types of innovations and in different settings (Howell et al., 2005).

The ‘Waist’ Disposal Challenge (WDC)

The WDC is a champion-led intervention implemented at the community level via service clubs (Rotary clubs) as a unique setting for health promotion (Aoun et al., 2009). The program targeted a hard to reach population with health promotion efforts – predominantly middle aged and older overweight or obese men at risk of developing chronic diseases such as diabetes and heart disease (Aoun and Johnson, 2002; Aoun et al., 2002). In general, men are less conscious and concerned about their health, often do not perceive themselves overweight when they are, are not easily accessible, do not seek help and access health services less frequently than women (Smith, Braunack-Mayer, & Wittert, 2006; Aoun, Donovan, Johnson, & Egger, 2002; O’Kane, Craig, Black, & Sutherland, 2008; Oldham & Robinson, 2015).
The WDC was led by trained champions and involved implementation at two levels: Level 1 – educational presentations were presented to club members or peers by champions on nutrition, exercise, and other healthy lifestyle habits to raise awareness of risk factors for lifestyle chronic diseases and the benefits of healthy nutrition and physical activity; Level 2 – a Body Mass Index (BMI) challenge was implemented between clubs and was facilitated by the champions, with monthly weigh-ins and a leader-board.

The WDC program was implemented in 52 Rotary clubs in Western Australia where 93 champions were trained to act as lay leaders within their clubs to implement the program and therefore build capacity from within the clubs. Following training, champions reported significant improvements in their knowledge, confidence, and skills to deliver the presentations and performed equally well as health professionals in motivating their peers to make changes to their diet or increase their physical activity (Aoun et al., 2013a). The BMI Competition had an 82% completion rate by peers, and, on average, 58% of participants (range varied between clubs from 24% and 92%) experienced a reduction in BMI within 6 months from the champions’ training. Thirty-six clubs were able to adopt and maintain the program with 16 clubs showing significant reductions in BMI.

This paper reports on the perspective of peers on the WDC program and on their champions and tests the application of the CBQ in a community based setting to rate champions’ attributes. The specific objectives are to: (1) assess the acceptability of the WDC by peers; (2) test the use of the CBQ in this community health initiative; (3) determine the relationship between peers’ perception of their champion’s behaviour and the acceptability of the program; and (4) explore the experience of peers and their feedback on the impact of the project.

METHOD
Design

A descriptive cross sectional design was employed, which included a survey and qualitative feedback. Ethics approval for this project was granted by the University’s Human Research Ethics Committee (HR85/2011).

Target group

Ninety-three Champions from 52 Clubs completed the training program. One thousand and one hundred club members/peers were exposed to the educational sessions delivered by champions and 825 participated in both the educational sessions and the BMI competition. Approximately one third of clubs were from rural areas. Of these 52 clubs, 7 did not implement the WDC following their champions’ training, 5 implemented only level 1 (educational presentations), and 4 clubs ran the BMI competition (level 2) for just one month. This left a total of 36 clubs who has sufficient experience of the project to participate in this study and a total of 743 club members/peers.

Measures

Data Collection took place in 2012 in Rotary clubs in Western Australia. A self-administered questionnaire was used and consisted of three sections: demographic information, general feedback on the WDC program and the validated standard tool of Champion Behaviour. Each section had an open-ended question for qualitative comments such as feedback on the perceived changes that resulted from program implementation and suggestions for improving the program. The number of respondents who mentioned a particular suggested change or improvement was reported.

Demographic Information included age, gender, highest level of education, current state of employment, occupation, whether they have held some leadership positions in the club, their length of participation in the WDC (months) and the program phases they took part in.
Feedback on the WDC Program included ratings on suitability, appropriateness and success of program in clubs. Answer categories were: strongly agree, agree, uncertain, disagree and strongly disagree.

Champion Behaviour was measured using the Champion Behaviour Questionnaire (CBQ) which is a 15-item self-report measure developed by Howell et al. (2005). High internal consistency reliability has been reported (overall Cronbach’s alpha coefficient of 0.94) and good face validity, as well as acceptable convergent, discriminant, and criterion-related validity, has been demonstrated (Howell et al., 2005). The measure includes three subscales: a) expresses enthusiasm and confidence about the success of an innovation (sample item: “shows optimism about the success of the innovation”); b) gets the right people involved (sample item: “gets problems into the hands of those who can solve them”; and c) persists under adversity (sample item: “knocks down barriers to the innovation”). The scale items are measured on a 5-point frequency scale ranging from 0 to 4 (not at all; once in a while; sometimes; fairly often; frequently, if not always) (Howell and Shea, 2006; Howell et al., 2005).

As the CBQ was developed for the business context, the wording of “product of innovation” was substituted by the “WDC program” and no other changes were made to affect the validity of the CBQ items.

Procedure

All participating clubs were informed of the anonymous survey via their champions who were in regular contact with the research team through the BMI competition (which was updated monthly on the website: www.waistdisposalchallenge.com.au.) Questionnaires to club members were in individual envelopes, which were then placed inside a large package and posted to the champions’ mailing address. Each participant’s own questionnaire pack included a cover letter, the questionnaire, the consent form and an addressed pre-paid
envelope. In an effort to increase the response rate, the champions followed up with reminders during club meetings.

Data Analysis

Descriptive statistics were calculated to summarise the demographic characteristics of the peers and their responses to the CBQ and program feedback questions. Pearson’s correlations were used to examine the associations between each of the three CBQ subscales and the seven program feedback items. The qualitative feedback was subjected to content analysis and coding was carried out independently by the first two authors with strong agreement how the responses should be grouped ensuring the context or explanation is considered and establishing overarching themes or categories through comparison of content.

RESULTS

Participants

The Club response rate was 75% (27/36) and the peer response rate from the responding 27 clubs was 36% (200/557). Two hundred peers (89% male; mean age = 63.97 years, SD = 10.28, range = 24 – 89) from 27 clubs completed the participant surveys at the conclusion of the program. Half of the respondents had a tertiary qualification, 51% were employed, 41% retired and the majority held leadership positions in their clubs (88%). The mean duration of program participation was 12.35 months (SD = 5.20). Sixty percent participated in the educational sessions and 94% participated in the BMI competition.

Feedback on the WDC

Feedback about the program was generally very positive (Table 1), with mean scores on all items falling at the upper end of the scale. Strong positive pair-wise correlations were found between all the feedback items ($r = 0.347 – 0.617, p < .001$).
Champion’s Behaviour Questionnaire

As can be seen in Table 2, scores on the CBQ as rated by peers fell in the mid-range. The inter-correlations among the three CBQ subscales were high ($r = 0.743 – 0.856$, all $p <0.001$).

Relationship between CBQ and program feedback

Modest but significant correlations were observed between the three CBQ subscales and several of the feedback items (Table 3). The most consistent correlations were observed with the perceived success of the program and ratings of the educational presentations as worthwhile, such that more positive feedback was associated with more favourable ratings of champions as expressing confidence and enthusiasm, persisting despite adversity, and involving the right people. Ratings of the program as suitable were also positively associated with the former two subscales of the CBQ, while ratings of champions as persisting with the program despite diversity were associated with higher perceptions of the BMI challenge as being worthwhile.

Qualitative Feedback

Changes resulting from WDC

About half of the respondents provided comments on qualitative questions. Responses to the question “What were the changes within your club that you were aware of that resulted from participating in the WDC?” were grouped into four main themes. The first theme
reflected a general perception that the program had resulted in weight loss amongst peers (mentioned by 39 respondents): “generally there was a weight reduction”, “many overweight members lost considerable weight”, “some members had a major weight problem and benefited by reducing weight during the program”, “one or two lost a lot of weight and may have saved a life”.

The second theme indicated a consensus that the program led to greater awareness amongst peers regarding the need to maintain a healthy weight, the importance of diet and physical activity, and the link between lifestyle factors and overweight/obesity (mentioned by 34 respondents): “raised awareness of health and dietary issues”, “members became aware of the dangers inherent in excess weight”, “I think general awareness of the benefits of healthy diet and exercise”, “members were more conscious of good and not too good food types”.

The third theme concerned the social nature of the program and the way in which it promoted discussion, camaraderie, competitiveness and motivation, and was enjoyable to attend (mentioned by 23 respondents): “lot of fun”, “unity, a purpose on this program”, “open discussion about individual weight and health. Some members participated well and benefited greatly”, “members were proud of their efforts”, “more camaraderie between members”, “energy and good humour”, “competitive spirit to lose weight”, “introduced a healthy, competitive element”.

The fourth theme reflected actual behavioural changes to lifestyles at the individual and club levels (mentioned 10 times): “members made a concerted effort to eat well and take walks before meetings”, “dietary arrangements at meetings”, “regular weigh-ins were an incentive to controlling diet”, “pre-breakfast walk along the beach”.

*Suggested improvements to program*
The most commonly suggested change to improve the program was the need for more frequent/ongoing monitoring and feedback about progress of individuals and clubs over the course of the program, with some suggestions that it should also run for a longer period of time and involve monitoring/reinforcement beyond the period of participation (mentioned 32 times): “reinforcement over a longer time”, “more regular updates”, “more feedback – bulletin/graph”.

The next most commonly mentioned suggestion was that the program should include more focus on boosting motivation and encouraging peers to participate, as well as acknowledging the psychological factors (e.g., attitudes, self-efficacy) that influence weight loss and lifestyle modifications (mentioned 12 times): “most members either know the importance but prefer not to change”, “not sure how to create a desire for people to drop weight”, “most in the community think they can't and believe they just can't drop weight”, “it is a psychological issue, not a weight issue”, “psychological stimuli and motivation to increase member participation”. It was suggested that the competitive edge within and between clubs needed to be boosted with a particular focus on men’s psychology such as “to be successful with males it needs to be made into money or reward challenge”.

When asked what champion attributes should be added to the list of the CBQ, it was suggested that champions need to lead by example: “champion needs to lose weight and does that”, “should be used as a role model for the program”, “having champions who eat everything without having a weight problem does not help, the response to their urgings is ‘it’s all right for you’”. Other cited attributes included “leadership characteristics”, “respected by our members”, “be available to ensure consistent profile”, “having enthusiasm about promoting program”, “pleasant and kind person”, “regularly communicate on project at meetings as part of normal report session”. As important was the need for the club to support the program with mentions such as “the club champion needed more support from our club”
or else a case of succeeding against the odds with “our champion was excellent in the face of opposition from the club president”. Also more active support was required from higher levels of leadership in the Rotary organization. Final comments reflected overall that the program was well received and its value was demonstrated and appreciated (“a worthwhile activity that should be encouraged”, “a great program, please continue it”).

DISCUSSION

The aim of this study was to determine the suitability of the champion behaviour questionnaire in measuring champion characteristics in the health promotion field, and to assess how such characteristics related to perceptions of the acceptability of a health initiative - the WDC program. Overall the results showed that the program and the delivery by champions were generally well received, with both the CBQ and feedback items being rated positively by participating members. Perceptions of the program were compatible with those reported by the champions regarding overall health improvements at the personal and peer levels, enhanced awareness about health-related issues, improved health behaviour, and community capacity, as ascertained in a previous study that focused on the champions’ perspective (Aoun et al., 2013b). Other studies have similarly reported that champions and community participants improved their knowledge of, and developed their skills, in health enhancement behaviours, as well as noting personal, familial, and community-wide health improvements following the introduction of a champion-led health intervention (Andrews et al., 2004; Debate and Plesc, 2004-2005; Fleury et al., 2009; Quinn and McNabb, 2001).

Positive ratings of champions’ performance were significantly correlated with perceptions of the success and suitability of the WDC. In particular, the perceived worth of the educational presentations appeared to be influenced by champion behaviour as evidenced by the significant positive correlations between this item and all three subscales of the CBQ.
This finding is consistent with previous research, whereby it was found that peers positively evaluated educational presentations (Aoun et al., 2013a). A comparison between the feedback on presentations delivered by champions and those delivered by health professionals (in an earlier pilot study), revealed that the champions performed equally well, if not better, particularly in motivating their peers to make changes to their diet or increase their physical activity (Aoun et al., 2013a). It seemed that club members related well to having one of them act as a champion and as a health resource for their clubs. This has been reiterated in this study where peers identified ‘champion acting as their role model’ being a desirable attribute to motivate them.

Respondents also significantly linked the success of the WDC program to the champions’ behaviour (for all three CBQ subscales). A number of peers did, however, comment that the lack of program success in their clubs was associated with the lack of support for the champion at the club level, and alluded to the beneficial role the club as a community could have played in the maintenance and success of the WDC. This sense of community has been reported in the literature as a phenomenon of collective experience and can be assessed by the Brief Sense of Community Scale (McMillan and Chavis, 1986; Peterson et al., 2008), which covers dimensions of needs fulfilment, group membership, group influence and emotional connection. To some extent, this has been positively exhibited in this study by comments on the social nature of the program and the felt sense of camaraderie. It would be valuable for future research to measure the sense of community, as the role of champions could not be defined without taking into account peers’ synergy and hierarchy and a sense of belonging to the collective. The absence of this dimension may well explain why the correlations of program success with only the attributes of champions being considered in this study were modest (though significant).
This is the first time the CBQ has been tested in a community based health setting. The CBQ has shown merits in terms of objectively assessing champions’ attributes in this study. Further research is needed to adapt and validate this measure in health initiatives for the general population. Considering the emphasis on the Champion’s weight in the qualitative comments, weight status of champions need to be considered in adapting and validating the CBQ in health initiatives devoted to weight reduction.

It is anticipated that the developed measure would be useful for identifying and selecting potential champions for community based health promotion and for developing the skills of promising champions; for example, in how to present ideas in a persuasive manner, to use influential strategies skilfully, and to enlist support and overcome challenges.

There were some limitations to this research. Data were reported from a self-selected group of peers who were possibly motivated to give feedback because of their positive experiences. It may well be that those who did not respond to the survey could have had a less positive experience, although the peer response rate of 36% was compatible with rates of postal surveys and 75% of clubs were represented. The respondents were a particularly well-educated group (half with university education) and the majority had held leadership positions in their clubs, so it may have been a case of “preaching to the converted” who valued the importance of such programs. However, their average period of program participation was just over 12-months, which meant they had adequate experience to give feedback on several aspects of the program, and perhaps those with less experience felt they could not contribute and therefore did not respond.

In conclusion, selecting suitable champions and providing them with adequate training in order to develop the appropriate behaviours to drive an innovation is likely to influence the success of community health promotion programs initiated by not-for-profit organisations or private and public health services. This is particularly valuable in
populations that lack access to health initiatives and health professionals, whether due to geographic or ethnic background limitations.

REFERENCES


Table 1. Mean scores on the program feedback items as rated by peers

<table>
<thead>
<tr>
<th>Feedback items</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable program for my club</td>
<td>4.22 (0.63)</td>
</tr>
<tr>
<td>WDC should run for a longer period of time</td>
<td>3.91 (0.80)</td>
</tr>
<tr>
<td>Enjoyable group activity</td>
<td>3.91 (0.65)</td>
</tr>
<tr>
<td>Educational presentations worthwhile</td>
<td>3.88 (0.66)</td>
</tr>
<tr>
<td>BMI challenge worthwhile to lose weight</td>
<td>4.01 (0.61)</td>
</tr>
<tr>
<td>Successful program in my club</td>
<td>3.70 (0.79)</td>
</tr>
<tr>
<td>Would recommend to other Rotary clubs</td>
<td>4.17 (0.65)</td>
</tr>
</tbody>
</table>

Note: All items were rated on a scale from 1 – 5 (1 = strongly disagree; 5 = strongly agree).

Table 2. Mean scores on the CBQ subscales as rated by peers

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conveying confidence and enthusiasm</td>
<td>2.84 (0.97)</td>
</tr>
<tr>
<td>Persisting in the face of adversity</td>
<td>2.78 (0.99)</td>
</tr>
<tr>
<td>Getting the right people involved</td>
<td>2.55 (1.14)</td>
</tr>
</tbody>
</table>

Note: internal consistency estimates were uniformly high (confidence/enthusiasm: $\alpha = .953$; persists despite adversity: $\alpha = .951$; right people: $\alpha = .932$); all items were rated on a scale from 0 – 4 (0 = not at all; 4 = frequently, if not always).
<table>
<thead>
<tr>
<th></th>
<th>Conveying Confidence and enthusiasm</th>
<th>Persisting in the face of adversity</th>
<th>Getting the right people involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable program</td>
<td>.154*</td>
<td>.206*</td>
<td>.151</td>
</tr>
<tr>
<td>Should run for a longer</td>
<td>.011</td>
<td>.011</td>
<td>.021</td>
</tr>
<tr>
<td>period of time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enjoyable group activity</td>
<td>.135</td>
<td>.169*</td>
<td>.125</td>
</tr>
<tr>
<td>Educational presentations</td>
<td>.202**</td>
<td>.249**</td>
<td>.252**</td>
</tr>
<tr>
<td>BMI challenge worthwhile</td>
<td>.139</td>
<td>.173*</td>
<td>.151</td>
</tr>
<tr>
<td>Successful program</td>
<td>.184*</td>
<td>.216**</td>
<td>.229**</td>
</tr>
<tr>
<td>Would recommend to other</td>
<td>.101</td>
<td>.154</td>
<td>.062</td>
</tr>
<tr>
<td>Rotary clubs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * p < 0.05; ** p < 0.01