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Journal Clubs: An Educational Approach to Advance Understanding among Community Partners and Academic Researchers about CBPR and Cancer Health Disparities

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Abstract

Background—Journal clubs may enhance the knowledge and skills necessary to engage in community-based participatory research (CBPR) that will ultimately impact cancer health disparities. This article: (1) describes an innovative approach to adapting the traditional journal club format to meet community and academic participants' needs, (2) presents evaluation data, and (3) explores whether responses differed between academic and community members.

Methods—Five journal clubs occurred between February 2011 and May 2012 as a training activity of a regional cancer health disparities initiative. Each journal club was jointly planned and facilitated by an academic member in collaboration with a community partner. Attendees were recruited from academic programs across the Moffitt Cancer Center/university and community partners. Responses to a 13-item evaluation of each journal club session were compared to assess whether certain topics were evaluated more favorably, and explore differences between academic and community participants' assessment of the topic relevance.

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Results—Evaluations were positive (mean ratings >4 out of 5) on most items and overall. No statistically significant differences were observed between academic and community members' ratings. Key overlapping interests by community partners and academic researchers/trainees for future journal club topics included discussing real-world CBPR examples and methods for involving the community in research.

Conclusions—Although the initial goal was to use journal clubs as an educational tool to increase CBPR knowledge and skills of junior faculty trainees, results suggest mutual academic-community benefit and interest in learning more about CBPR as a way to reduce cancer health disparities.

Introduction

Community-based participatory research (CBPR) is a collaborative approach that equitably involves the target community in all aspects of the research process. This approach is based on the philosophy that improvements in public health are most successful when community members are involved in the full spectrum of action, from problem definition to intervention [1]. Equitable and active partnerships with the community (e.g., community-based clinics, grassroots organizations, adult learning and faith-based groups) are critical for effecting positive social changes to impact health and health policy [1, 2]. Community members are cultural experts and have the best understanding of what will work in their own communities [1, 2]. Indeed, community-based projects have realized successes otherwise unlikely through top-down intervention models [3]. There is significant national interest in the use of CBPR approaches to reduce health disparities, especially from policy makers, funders, community leaders, and academics. Paramount to the successful use and application of CBPR is education and skill-building activities that center on practical ways to carry out relevant high quality research in the community [4, 5].

The Tampa Bay Community Cancer Network (TBCCN) is one of 23 Community Network Program Centers (CNPC) in the United States funded by the National Cancer Institute's Center to Reduce Cancer Health Disparities. In its original funding cycle (2005–2010), TBCCN formed a sustainable, community-based network focused on utilizing a CBPR paradigm to reduce cancer disparities among medically underserved populations in a tricounty area (Hillsborough, Pasco, and Pinellas counties). Now in its second funding cycle (2010–2015), TBCCN is comprised of 23 diverse partnering organizations, including social service organizations, grassroots non-profit, faith-based and adult education/literacy groups, community health centers, and the Moffitt Cancer Center. TBCCN activities are structured around four program cores: administrative, outreach, training, and research. Each of these program cores aims to reduce cancer disparities among diverse racial-ethnic and medically underserved populations. The journal club represents one of the many CBPR-oriented training activities.

The overall goal of the TBCCN training core is to create a series of collaborative experiential and field activities involving the use of didactic and interactive methodologies for junior faculty. These activities are designed to enhance knowledge and skills necessary to conduct CBPR that will ultimately impact cancer health disparities [6]. A critical

approach toward achieving this goal is to infuse training activities with community members' experiences, perspectives, and thoughts on CBPR. As such, all trainees are assigned a community and academic mentor, engage in field immersion experiences at community mentors sites, and participate in a variety of training activities that are cofacilitated by community members.

Journal clubs have been a longstanding approach to supplement didactic teaching methods. The format often consists of an article from the peer-reviewed literature that is summarized by a leader/facilitator, followed by a presentation and interactive discussion of study strengths and limitations. In addition to increasing knowledge about a specific content area, an inherent goal is to increase critical thinking and appraisal skills. To date, the vast majority of literature published about journal clubs has been related to implementation and/or evaluation in the context of graduate/medical/nursing education and training [7–9].

The aims of the current article are to describe an innovative approach to adapting the traditional journal club to include CBPR approaches and perspectives, and to present evaluation data. Given the emphasis on mutual benefit for all partners in CBPR, we also explored whether evaluation responses differed between academic and community member participants. Our examination is based on five journal club sessions that took place between February 2011 and May 2012.

Methods

Journal Club Promotion/Recruitment

Given the basis in CBPR, the journal club was open to all academic (Moffitt Cancer Center/ local university faculty, students, trainees, staff) and community members (TBCCN partners, other interested community members). The topics for the five journal clubs evaluated in the current manuscript were: *Engaging Community Advisory Panels in Research Studies; CBPR: Are Researchers Prepared?; Service Learning and Community Engagement; Developing a Community Action Plan to Eliminate Cancer Health Disparities: Lessons Learned; and Challenges in Implementing Intervention Trials in Community Engaged Research.*

Journal Club Logistics

The journal club sessions took place over the noon hour and were held at Moffitt Cancer Center. Although partners were offered the opportunity to host journal clubs, they preferred that meetings primarily be organized by the TBCCN training core team and located at Moffitt Cancer Center. Recruitment for the journal club included an email from the CBPR TBCCN training core team to academic programs and other health disparities initiatives across the Moffitt Cancer Center/university, as well as TBCCN community partners. The email included a brief description of the activity, a flyer, and the article to be discussed. The flyer included the journal club date, time, location, and topic, and stated the journal club is open to faculty, staff, students, and community members. In order to enhance community participation, journal club sessions were announced at quarterly community partner meetings, and information was included in newsletters sent to TBCCN partners.

Communications regarding the journal club meeting emphasized that participation was not limited to TBCCN partners. At least one reminder email was sent the week prior to the scheduled journal club date.

Journal Club Format and Implementation

The format included elements of traditional academic journal clubs such as the presentation of an article by a facilitator(s) followed by group discussion of the article. However, a unique element, relevant to CBPR, was that all journal clubs were planned and facilitated by an academic member participating in the TBCCN training core team (beginning with senior faculty for the first three, followed by junior investigator trainees) in collaboration with a community member (a TBCCN community partner). Given the high level of engagement between the TBCCN training core team and trainees with community partners, the assigned presenter approached the community partner to assess their interest in co-presenting the journal club. Once partner interest and availability were confirmed, six weeks prior the scheduled journal club date, the TBCCN training core team would reach out to the presenters to offer assistance in identifying a journal article. As part of ongoing TBCCN training core team efforts, the institutional medical librarian conducts a monthly literature search to identify CBPR and cancer health disparities articles that is maintained in a list format by the TBCCN training core team and was made available for the presenters' review. However, they were also free to select an article based on their mutual interests that was not part of this list. Once the academic and community presenters jointly selected the article, they determined how the article would be presented and how to facilitate the subsequent discussion (e.g., developing discussion points, planning activities). The typical format of the journal club session involved:

- An introduction of the presenters by a TBCCN training core team member of the academic and community presenter. This introduction generally included background information about the academic team members' research interests as they related to CBPR and cancer health disparities and a description of the community presenter's organization.
- Next, the presenters provided a brief overview of the article and highlighted issues that were most salient to the community with which they worked.
- The overview was typically followed by a series of discussion questions that were generated by the presenters. The presenters were also encouraged to develop interactive activities that may increase attendee engagement such as breaking up into small groups to discuss certain elements of the article or developing a "worksheet" to identify key elements of CBPR.
- The journal club was generally facilitated entirely by the presenters. However, members of the TBCCN training core team attended every journal club and were available as a resource to help facilitate the discussion or introduce new topics, as needed.

Evaluation

All journal club attendees were asked to complete an evaluation that included 13 items to assess participants' experiences related to the journal club. The first 9 items asked participants to provide ratings on a 5-point Likert scale (1=strongly disagree to 5=strongly agree). The next item asked participants to provide an overall rating of the journal club on a 5-point scale (1=poor to 5=excellent). Mean scores were calculated for these 10 items. Respondents completed three additional items regarding whether their work was related to CBPR (yes, no), their role (researcher, student, community member), and an open-ended item that asked for suggestions about topics for future journal clubs.

Data Analysis

All data were analyzed using SAS (v9.3). Item responses were compared across journal clubs to assess whether certain topics were evaluated more favorably than others using graphical and descriptive statistics. To explore possible differences between academic and community respondents on the quantitative questions, we selected five items that most directly reflected the participants' assessment of the topic relevance. These items included: whether the content of the journal club was relevant to their practice, work, or studies; whether the journal club session provided them with new information that is directly applicable to their practice, work, or studies; whether their interest in CBPR was stimulated; whether they learned more about CBPR during the journal club discussion; and their overall rating of the journal club. For this analysis, students, junior investigator trainees, and researchers were grouped into a single category (academic) and compared to those who selfidentified as community members. The mean score and 95% confidence interval along with the exact Wilcoxon sum rank test was used to explore differences between the two groups on the five items for each journal club with the exception of the fourth journal club, where no community members completed evaluations. Finally, responses to the open-ended item regarding topics of interest for future journal clubs were categorized according to whether they were mentioned by students, trainees, and researchers (i.e., academic), community members, or both academic and community participants.

Results

For every journal club the majority of participants were researchers, followed by trainees and community members (Table 1). As shown in Table 2, evaluations were overwhelmingly positive (ratings >4) on most items and overall. There were no statistically significant differences (p > 0.05) between academic and community members' ratings on any of the selected items. However, the open-ended item regarding areas of interest for future journal club sessions generated several distinct suggestions provided by community partners and academic researchers/trainees. Community partners mentioned topics including obtaining grant funding, health education for diverse learning styles, engaging youth in medical/ scientific careers, policy and advocacy, and CBPR in grant funding. Topics of interest mentioned by academic researchers/trainees included involvement of youth in research; mutual benefits of research for community and researchers; community advisory boards; conducting research with vulnerable populations; building a CBPR research agenda; African Americans in the community; African Americans and colorectal cancer; sustainability;

enhancing CBPR skill sets; ethics, morals, and values in research; incorporation of service learning in all disciplines to build community partnerships; establishing community linkages for new researchers; health disparities; and principles of CBPR. Areas of overlapping interests between community partners and academics included discussing real-world examples of CBPR; considering challenges to and novel ways for involving the community in research; clinical trials participation; program evaluation; and coalition and linkage building between community partners and researchers.

Discussion

Given the need for ongoing and long-term high quality CBPR to reduce cancer health disparities, the National Institutes of Health has recognized the need to train future researchers [4]. A critical aspect of CBPR training involves continued interactions with community members in various contexts and formats. Journal clubs are one strategy for helping trainees keep abreast of new knowledge, as well as bridging research and practice [10]. By adapting the journal club to include a community perspective, they can also serve to help trainees interested in future careers in CBPR and cancer health disparities. Successful journal clubs promote attendance and involvement; designate a session leader; and are scheduled at convenient times and locations [11]. The journal clubs described in this article drew on these key components: email was used to communicate and promote attendance; academic and community partners were designated as session leaders to foster engagement among all participants; and, as evidenced by the evaluations, meetings were held at a convenient location. Given that journal clubs were attended by more academic than community partners, future efforts to bolster community members' attendance may include expanding recruitment methods and holding more than one journal club session for each topic. Additionally, sessions may be recorded to extend the benefit of the journal club discussions to those unable to attend in-person.

Journal club participants' high ratings for all five journal clubs suggest both academic and community partners find these meetings useful, relevant, easy to understand, and stimulate interest in CBPR. Importantly, although the initial goal was to use journal clubs as a method to increase the CBPR knowledge and skills of junior faculty trainees, results suggest a mutual academic-community benefit.

Several unique as well as overlapping topics of interest for future journal clubs were identified by academic and community partners. Community partners generally expressed interest in future journal clubs in areas that may support the capacity of their own organizations including grant writing, policy/advocacy, and educational materials development. Several recent publications have highlighted approaches to capacity building with community partners that include these topics [12–14]. Interestingly, community partners also expressed an interest in the topic of preparing youth for future careers in science/medicine. Indeed, there has been growing attention focused on developing a training pipeline for underserved students to prepare them for future careers in cancer [15, 16]. At Moffitt Cancer Center, numerous students participate in such training programs, some of which involve interactions with community partners. Thus, future journal clubs may be led by a student, faculty mentor, community partner triad to highlight the benefits of these

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Both academic and community groups expressed interest in journal clubs highlighting examples of actual participation and partnership in CBPR research. Two recent systematic reviews identified several articles that provide examples of various aspects of CBPR trials that can serve as the basis for a future journal club [17, 18]. This journal club would likely be enhanced if it were facilitated by a community and academic team that has actually partnered and implemented a CBPR study. Finally, both groups expressed an interest in evaluating CBPR. Questions such as what are the most important outcomes to evaluate and generalizability of findings after a program has been tailored to the unique needs of a particular community are but a few examples of evaluation challenges in CBPR [19]. These questions serve as a focal point for trainees and community members to engage in dialogue about key issues important to their community. Further, there are several examples in the literature of approaches to evaluating CBPR that can serve as the future basis for discussion on this topic [19, 20].

There are several study limitations to note. First, no community members participated in the fourth journal club. Although reasons for non-participation are unknown, it is possible that the topic did not elicit interest in community members or that the meeting time conflicted with another community event. Second, despite efforts to increase community member participation, the percentage of journal club participants who were community members ranged from 0 to 26%. The study team continues to work with community partners to consider approaches for increasing community member participation. For example, based on suggestions generated during a community partner meeting, we have included the addition of a lay publication such as a magazine or newspaper article to accompany the journal article to increase interest and relevance of the topics to community partners. In addition, we have held two journal clubs at community partner sites (evaluations pending; data not shown). Future analyses will compare evaluations before and after changes were implemented.

In summary, this paper describes the successful adaptation of a traditional academic journal club format to incorporate community perspectives and involvement in planning and implementation of a CBPR-focused journal club. These journal club sessions also provided insight into topics of interest that can serve as the basis for future journal clubs. Future research should focus on evaluating whether these journal clubs increase CBPR-related knowledge and implementation of CBPR into practice.

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Table 1

Journal club evaluation respondent characteristics

Journal Club Topic ^a	Total number of attendees	$ \begin{tabular}{lllllllllllllllllllllllllllllllllll$	Students/trainces n (%)	Researchers n (%)	Community members n (%)
Journal Club 1: Engaging Community Advisory Panels in Research Studies [21]	28	28	8 (29)	16 (57)	4 (14)
Journal Club 2: CBPR: Are Researchers Prepared? [22]	27	23	3 (13)	14 (61)	6 (26)
Journal Club 3: Service Learning and Community Engagement [23]	24	21	2 (10)	15 (71)	4 (19)
Journal Club 4: Developing a Community Action Plan to Eliminate Cancer Health Disparities: Lessons Learned [24]	19	10	0 (0)	10 (100)	0 (0)
Journal Club 5: Challenges in Implementing Intervention Trials in Community Engaged Research [25]	20	20	3 (15)	14 (70)	3 (15)

Number after each journal club title indicates citation for article used for that journal club.

^bPlease note that we did not provide a total number of attendees by each column as several people attended more than one journal club and thus one individual would be counted multiple times

Table 2

Summary of average evaluation responses for journal clubs

	lou	Journal Club 1	ıb 1	Jour	Journal Club 2	ıb 2	Jour	Journal Club 3	b3	Journal Club 4	al Clu	4	lour	Journal Club 5	ıb 5
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Evaluation Item ^a	n=24	n=4	d	n=14	9=u	d	n=17	n=4	d	n=10	n=0	d	n=17	n=3	d
The journal club content was relevant to my practice, work, or studies	4.5	4.5	.944	4.2	4.5	.266	4.6	4.7	.715	4.7	Т	Т	4.2	4.7	.530
The journal club stimulated my interest in CBPR	4.5	4.8	.850	4.3	4.5	.437	4.6	4.5	.950	4.7	T	T	4.4	4.0	.318
The journal club discussion was easy to understand	4.8	4.8	NA	4.8	4.5	NA	4.9	4.5	NA	4.8	T	I	4.7	4.7	NA
The journal club provided me with new information that is directly applicable to my practice, work, or studies	4.4	4.5	.653	4.0	4.3	.892	4.5	4.7	.887	4.7	I	Ι	4.2	3.3	.113
I learned more about CBPR during the discussion	4.5	4.5	.450	4.5	4.2	869.	4.2	4.5	.551	4.6	I	I	4.5	4.0	.340
The information discussed was useful	4.7	4.5	NA	4.4	4.5	NA	4.8	4.5	NA	4.7	I	I	4.4	4.7	NA
The discussion leader provided relevant information about the topic of CBPR	4.8	4.5	NA	4.6	4.5	NA	4.8	4.5	NA	4.7	I	I	4.6	4.7	NA
The article that was discussed was relevant to CBPR	5.0	4.5	NA	4.7	4.5	NA	4.6	4.5	NA	4.9	I	I	4.6	4.7	NA
The location for this journal club was convenient for me	4.3	4.0	NA	4.6	4.2	NA	4.8	4.0	NA	4.7	I	T	4.4	5.0	NA
Overall rating	4.4	4.0	.260	4.2	4.0	.625	4.4	4.0	.524	4.4	I	I	4.2	3.7	.231

b Journal Club 1: Engaging Community Advisory Panels in Research Studies; Journal Club 2: CBPR: Are Researchers Prepared?; Journal Club 3: Service Learning and Community Engagement; Journal Club 4: Developing a Community Action Plan to Eliminate Cancer Health Disparities: Lessons Learned; Journal Club 5: Challenges in Implementing Intervention Trials in Community Engaged Research

 $^{c}A =$ academic partner; C = community partner

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Note: NA = not assessed