

A Needs Assessment Informs Development of a Participatory Research Faculty Development Workshop

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Abstract

University-based researchers are finding they need a new set of skills to collaborate meaningfully with non-academic research partners, and to compete for funding opportunities that require community and end-user partnerships. This article describes a needs assessment conducted to develop a participatory research faculty development workshop at McGill University in Montreal, Quebec, Canada. This assessment and faculty development workshop design process distinguished the varying needs of potential participants based on the types of partnerships they were interested in forming, and their pre-existing participatory research competence.

Introduction

In this article, the authors articulate the need to help university faculty members understand the value of participatory research while acquiring skills to build, fund, and sustain participatory research projects. They describe a needs assessment process to develop a participatory health research faculty development workshop.

Participatory Research

Participatory research has been defined as “systematic inquiry, with the collaboration of those affected by the issue being studied, for purposes of education and taking action or effecting social change” (*Green et al., 1995, p. 4*). It is an action-oriented approach to the creation of new knowledge that seeks to engage those participants for whom a benefit is sought, and those who need to act on its results in order to bring about change. These participants can include individuals, community or organization members, or policy makers, who act in equitable partnership with faculty researchers to answer questions that resonate meaningfully for all parties. Other terms used to describe participatory research include action research, participatory action research, community-based participatory research, and collaborative inquiry.

The goals of participatory research are to undertake high-quality research, benefit the community or group where the research is occurring, and develop knowledge applicable to other settings (Minkler & Wallerstein, 2008; Wallerstein & Duran, 2006). Participatory research is a means of creating practice-based evidence (Green, 2008b). Other outcomes can include building capacity of all participants, and increasing the sustainability of projects beyond the end of research funding. A participatory approach integrates the translation of knowledge throughout a research project by ensuring that the “end-users” of the results (e.g., individual participants, organizations) are involved throughout the research process, from identification of the research problem, to data collection and analysis, interpretation of results, and dissemination of the findings (Graham & Tetroe, 2007; Macaulay et al., 1999; Parry, Salsberg, & Macaulay, 2009).

Participatory research is being more widely recognized as an effective method of adding relevance and value to health care research (Israel, 2005; Israel, Schulz, Parker, & Becker, 1998; Macaulay et al., 1999; Minkler, 2000; Minkler & Wallerstein, 2008; Viswanathan et al., 2004). In recent years, health care researchers have increasingly adopted a participatory approach to research (Jagosh et al., 2011). At the same time, a growing number of funding opportunities are calling for a participatory or integrated partnership component to proposed

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research designs. It has become clear to many researchers that an additional set of skills is required, first to successfully compete for research opportunities, and then to build and maintain successful research partnerships.

Participatory Health Research in the Faculty of Medicine at McGill University

This article describes capacity-building efforts taking place at McGill University, a publicly funded institution in Montreal, Quebec, Canada. McGill is a top Canadian medical/doctoral university with a large international student population and a strong focus on research, particularly in the health and biomedical fields. In 2006, the center for Participatory Research at McGill (PRAM)

was established to build faculty capacity for participatory health research within the faculty of medicine. The center supports a variety of activities, including faculty development workshops; consultations with clinicians, researchers, faculty members and students; collaboration on existing or new research grants; sponsorship of a seminar series; and funding for graduate training scholarships. The long-range goals of the center are to increase the faculty's capacity for participatory health research, establish funded research partnerships, and increase community engagement.

One of the center's strategies to build faculty capacity for participatory health research was the design and delivery of participatory health research faculty development workshops. In 2007, to design the workshops, the authors (who are the center's leaders) conducted a needs assessment by surveying the Faculty of Medicine's faculty and research staff.

The Needs Assessment

Institutional ethical approval was granted by McGill University and required active consent from all study participants in the qualitative phase of the center's needs assessment survey.

Steps Taken to Develop a Survey Instrument

To develop the needs assessment survey instrument, the authors first interviewed faculty members known to be using a participatory health research approach. The faculty represented six disciplinary units (Family Medicine, Epidemiology and Biostatistics, Dietetics and Human Nutrition, the Bioethics Research Unit, Integrated Studies in Education, and one hospital-based research center) across three faculties (Medicine, Agricultural and Environmental Sciences, and Education).

Next, the authors held one focus group with nine participants who had pre-existing participatory health research knowledge or an interest in beginning a participatory health research project. These nine faculty members represented eight academic units (Whole Person Care, the School of Nursing, Anthropology, Institute of Health and Social Policy, Family Medicine, Kinesiology & Health Education, School of Social Work, and Integrated Studies in Education) across three faculties (Medicine, Arts, Education).

The goal of the focus group and the individual interviews was to elicit thematic categories using focused coding techniques (Lofland & Lofland, 1995). The 13 thematic categories that emerged reflected issues related to academic participatory health research. These categories were collapsed into five major themes (see Table 1).

Table 1. Thematic Categories Related to Participatory Research

| Major Theme | Sub-Categories |
|----------------------|--|
| Conceptual framework | Action vs. research; key aspects of participatory research; general need for participatory research |
| Partnerships | Ethics; academic-partner agreements for participatory research process |
| New developments | Participatory research developments; participatory research impact on policy; interest in participatory research from other areas |
| Academic development | Need for academic participatory research expertise; personal participatory research goals |
| Institutional issues | Institutional needs for participatory research; institutional support for participatory research; barriers to participatory research |

These five emergent themes were used to form seven categories for the needs assessment survey (see Figure 1):

- Participatory research background
- Partnerships
- Funding
- Research and project evaluation (scholarship)
- Disseminating results and influencing policy
- Professional and academic skills/leadership
- Ethics

Some themes were split into more than one category for clarity in the final survey. The needs assessment survey included 16 questions related to the themes. Four additional questions were included to determine respondent level of experience with participatory health research, research in general, potential collaborators, and preferred learning format.



Figure 1. Categories of Qualitative Themes for the Needs Assessment Survey

The Needs Assessment Survey

The needs assessment survey was administered as a web form. It was distributed via departmental electronic mailing lists to all members of the 21 departments within the Faculty of Medicine. Due to variations in classifying faculty, clinical, and hospital-based researcher affiliations from department to department, the authors were unable to determine the total number of individuals who received the invitation to complete the survey. Respondents were asked to rate 16 issues on a scale of 1 to 5, where 1 was “most important” and 5 was “least important” (see Table 2). They ranked various learning formats, and were also asked to rate their level of participatory health research experience (none, some, significant); their total years involved in research; and their likely research partners. (See <http://pram.mcgill.ca/na/survey.html> for complete survey.)

Table 2. Respondents’ Ranking of Learning Needs, 1 (most important) to 5 (least important)

| Question | N | M | SD |
|--|-----|------|-------|
| Grantsmanship skills specific to participatory research | 124 | 1.88 | 0.976 |
| Evaluation methods and models used in participatory research | 125 | 2.03 | 1.047 |
| Research partnership agreements, encompassing partner responsibilities, data ownership, protection, etc. | 124 | 2.03 | 1.012 |
| Identifying and overcoming challenges | 125 | 2.07 | 1.108 |
| Integrated Knowledge Translation throughout the participatory research process | 125 | 2.10 | 1.098 |
| Major challenges to conducting participatory research and how these challenges may be overcome | 124 | 2.12 | 1.13 |
| Participatory research issues with IRBs (Institutional Review Boards) | 119 | 2.13 | 1.008 |
| Using evaluation results to manage, plan, strategize and improve partnership | 123 | 2.14 | 1.058 |
| How to influence policy | 124 | 2.16 | 1.136 |
| How to develop and maintain partnerships | 124 | 2.20 | 1.189 |
| Process evaluation for a participatory research partnership using a model-based approach | 125 | 2.20 | 1.054 |
| Scholarly and community dissemination of participatory research studies | 125 | 2.30 | 1.158 |
| How to identify participatory research partners | 125 | 2.33 | 1.243 |
| How to balance personal, community, academic values in participatory research | 121 | 2.45 | 1.118 |
| Key terms and principles used in participatory research | 125 | 2.51 | 1.175 |
| Tenure and promotion in relation to participatory research | 120 | 2.93 | 1.385 |

Note: Responses could range from 1 = Most Important to 5 = Least Important.

Findings

The needs assessment survey elicited 125 responses from members of 14 of the 21 departments in the Faculty of Medicine as well as from two Schools (Nursing, and Physical and Occupational Therapy), four centers, three clinical units, seven divisions, and one department outside the Faculty of Medicine (Anthropology). Authors are unable to estimate the overall response rate, as they cannot know the number of individuals who received the invitation to complete the survey. However, the purpose of the survey was not to determine the proportion of faculty members who were interested in participatory research, but to reach those who were and assess their needs. Therefore the sample can be seen as a stratified purposeful one.

One-way analysis of variance for responses to “Rate your level of participatory research experience” revealed a significant difference between groups for about one third of the questions. Comparing means among respondents with “significant” participatory research experience revealed that the highest rated responses were

- how to influence policy;
- participatory research issues with Institutional Review Boards (IRBs);
- integrated knowledge translation throughout the participatory research process;
- grantsmanship skills specific to participatory research; and
- research partnership agreements.

The needs assessment survey indicated who respondents viewed as potential research partners. Of the 125 respondents, 103 said they would likely partner with professionals, 81 with patients, and 78 with organizations. Only 57 were interested in research partnerships with community members, and only 44 with policy makers.

McGill University’s Participatory Health Research Faculty Development Workshop

The needs assessment survey results informed overall program content of a half-day participatory health research faculty development workshop. They also helped prioritize workshop learning objectives, and determined how much time would be allotted to

each. The final workshop program, which is based on analysis of the needs assessment data, is presented in Figure 2.

**Objective-Based Topics to Address the Learning Goal:
To Build Participant Capacity to Conduct Participatory Health Research**

Introduction: Understand Principals in Participatory Research

- History
- Enumerate concepts
- Research design
- Professional and career issues

Identify Research Partners

- Contacting organizations
- Mobilizing groups
- Maintaining relationships

Ethics and Research Agreements

- Identifying governance issues; partners' roles, rights, and responsibilities
- Determining means of conflict resolution
- Understanding protection of individuals and collectives
- Determining ownership, control, access and possession of data
- Meeting IRB (Institutional Review Board) and community needs

Integrating Knowledge Translation in the Research Process

- Including parties in formulating a research model
- Ensuring two-way communication between participants and their organizations throughout the research process
- Incorporating non-academic voices in research design and dissemination

Post-Research Dissemination

- Incorporating non-academic voices in scholarly articles
- Incorporating multiple voices
- Presenting to community or other interest groups

Figure 2. Participatory Health Research Faculty Development Workshop: Objectives

Program Format

The workshop instructors provided participants with reading material in advance (*Cargo & Mercer, 2008; Green, 2008a; Israel et al., 1998; Macaulay et al., 1999*). They also gave participants two assignments to complete during the workshop regarding their thinking about building effective partnerships and implementing participatory research projects (the assignment guidelines may be found at http://pram.mcgill.ca/pr_workshop2009.php). Examples and case studies were determined from the needs assessment responses and from participant responses to e-mail queries. The workshop opened with presentations on the principles and ethics of participatory health research. Each of the workshop's breakout

sessions was led by two facilitators (one a faculty member, and the other a non-academic partner from existing participatory health research projects).

Workshop Attendees and Their Reactions

The workshop was piloted in the Department of Family Medicine, and after incorporating feedback, was then offered as an accredited continuing medical education workshop by the Faculty of Medicine's Office of Faculty Development. Thirty-two faculty members and affiliated researchers attended, representing the following departments or units (in descending order of number): Medical Education, Psychiatry, Medicine, Family Medicine, School of Nursing, School of Physical and Occupational Therapy, Neurology & Neurosurgery, Obstetrics/Gynecology, Kinesiology and Health Education, Dentistry, Pediatrics, Medical Simulation Center, Life Sciences Library, and the Centre hospitalier de l'Université de Montréal (external to McGill). Twenty-five participants held faculty appointments (i.e., assistant, associate, or full professor), two were postdoctoral fellows, three were research associates, and two were graduate students employed as research assistants on community-based projects. Evaluations from the 32 participants were positive. Thirty participants said they would recommend the workshop to colleagues, one would not, and one did not respond.

The workshop was followed by a booster session 9 months later, which attracted nine of the original participants. All but one attending the booster session had commenced building partnerships and discussing potential research with community or other end-user partners. The purpose of the booster session was to help the participants brainstorm next steps in their projects and to suggest funding opportunities. The booster session was not evaluated.

Reflections on the Needs Assessment Process

The goal of the needs assessment process was to move from the experiences of existing participatory health researchers to identifying the perceived needs of prospective participatory researchers, and then to developing and implementing a participatory health research faculty development workshop. In developing the workshop the authors established a primary outcome goal (i.e., a "defined learner competency"), and a set of learning objectives (i.e., critical skills that can be introduced during the workshop, practiced through example, and later mastered through use; *Steinert,*

Boillat, Meterissian, Liben, & McLeod, 2008). In this case, the capacity to conduct participatory health research was the defined learner competency. The workshop's learning objectives, reflected in the final program shown in Figure 2, were to understand key principles in participatory research; know how to identify research partners; understand ethical issues; understand how participatory research integrates knowledge translation within the research process; and be able to design an appropriate post-research dissemination strategy. Although it is impossible to cover everybody's individual needs within the context of one half-day workshop, the final needs-based program, grounded in sound assessment methodology, gave assurance that the majority of participants were satisfied.

Impact of the Faculty Development Workshop: Enhanced Faculty Capacity for Participatory Health Research

It is difficult to identify independent measures of the workshop's impact. There has been a marked increase in acceptance and understanding of participatory health research at McGill University, as is evinced through the ever-increasing quality and quantity of PRAM's interactions and consultations with faculty. It is impossible, however, to determine whether this increase is an outcome of the workshop. Still, it is encouraging that nine of the original 32 workshop participants returned the following academic year for the booster session, indicating that they were initiating their own participatory health research projects. Furthermore, the authors are in contact with many of the other 23 participants who did not attend the booster session but are undertaking participatory health research projects.

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Since 2009, the center has experienced an increase in the number of faculty researchers who are seeking consultation on participatory health research issues as well as faculty from McGill and beyond who are seeking participatory research training for their graduate students. Furthermore, the types of partners that researchers are interested in working with have changed over time.

Initially, members of the Faculty of Medicine were more interested in partnering with patients or organizations than they were with community members or policy makers. In the 3 years since the needs assessment survey, interest has increased in community-based partnerships, partnerships engaging policy makers, and projects that include both. Long-term impact of the faculty development workshop and other efforts will be found in changes in the academic environment (e.g., in new guidelines for promotion and tenure that give merit for partnerships and outreach activities), the number of applications to and funding awards from granting agencies that require participatory research, an increase in the number of faculty doctoral advisors that have participatory research competencies, and a general shift in discourse about participatory research.

Conclusion

The environment for building academic capacity for participatory health research is constantly changing as new mechanisms for understanding and performing this type of research emerge. The center for Participatory Research at McGill University was founded after more than 10 years of experience doing engaged health research in communities outside academia. The authors firmly believed—and still do—that more faculty members would engage with non-traditional research partners if they could see the benefits of doing so (O’Toole, Aaron, Chin, Horowitz, & Tyson, 2003), and were equipped with the appropriate participatory health research skills.

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