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Development

Community-based research: a catalyst for transforming primary health care rhetoric into practice

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The Canadian health care system is under increased pressure to reform. While some advocates lobby for more physicians and more resources to fix the ailing system, many reports point to another potential solution – implementing primary health care (PHC). Implementing PHC will not be easy. Even though there is substantial evidence to support the efficacy and cost effectiveness of PHC, its implementation will require substantial changes in practice. Community-based research (CBR) has the potential to be the catalyst for the type of change that is required. A multidisciplinary, multisectoral inquiry team has been funded to use CBR to reconceptualize and transform PHC service delivery in British Columbia, Canada. Although the research project is in its initial phase, it is anticipated that the research will provide new, holistic, and comprehensive frameworks for practice. This paper describes the process used to bring about these changes.

Key words: community-based research; health service delivery; primary health care; transformation

The Canadian health care system is stressed. The general public, in most cases unaware that there are alternatives, has joined the clamour for more physicians, new technology, and more dollars to be dedicated to health care. However, many reports conclude that more physicians and further spending will not resolve the current problems. Instead, the research calls for a reorientation of health services to primary health care (PHC) models, with multidisciplinary teams providing a range of co-ordinated, integrated services.

Indeed, virtually every inquiry conducted and report written about health care reform in Canada in the last three decades has recommended some form of PHC as a preferred option for health service delivery (British Columbia Ministry of Health, 2000; Association of Ontario Health Centres, 2001; Mazankowski, 2001; New Brunswick Health, 2002; Saskatchewan Health, 2002). The academic literature also supports this conclusion, and both academic and inquiry reports consistently describe the many benefits that result from implementing a PHC approach. Despite consensus that PHC offers significant benefits to all stakeholders, the translation of the rhetoric into actual practices that incorporate PHC principles remains fragmented, unstructured, and unco-ordinated in its implementation (Wanke *et al.*, 1995; Association of Ontario Health Centres, 1998; Busby *et al.*, 1999; British Columbia Ministry of Health, 2000; Pringle *et al.*, 2000).

Acceptance of new principles and the commitment to change health practices will amount to an entirely new practice culture. Given that government

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legislated PHC is necessary to implement change, it is not sufficient to change the current practice culture that has evolved over the past 50 years. It is unrealistic to expect rapid change without a catalyst to initiate this necessary change in the practice culture to establish momentum for a complete transition to PHC. Research can be this catalyst.

Research provides the opportunity to synthesize lessons learned from individual attempts to institute PHC principles and, in so doing, helps to counter the isolation and exclusion experienced by some practitioners involved in those attempts (Busby *et al.*, 1999). However, choice of research methodology is a key determinant of success. Orthodox research approaches which emphasize proof and prediction are ill suited to nurture the development of practice models or the necessary change. Alternatively, community-based research (CBR) has the potential to be the required catalyst, especially when a co-operative inquiry methodology is applied. In fact, CBR was specifically designed to achieve the kind of transformation and societal change needed to implement PHC models (Reason, 1986; Reason, 1994; Hills and Mullett, 1996; Heron, 1996).

Recognizing a need for more creative, relevant, multifaceted, and multidisciplinary work that addresses today's complex health challenges, Canada's federal health research funding agencies were recently reorganized to encourage cross-sectional, multidisciplinary and partnership research, and to facilitate such approaches with appropriate funding. The research team described in this paper, representing two diverse health regions, two universities, two PHC centres, and their respective communities in British Columbia (BC), Canada, received funding for five years from the Community Alliance for Health Research (CAHR) fund to reconceptualize and transform PHC delivery in the province. The aim of the research is to cultivate mutual learning and collaboration among community members, community health professionals, government, and researchers. In this paper we will report on preliminary results from our first two years of research; results that illustrate the potential of CBR for promoting change and contributing to the evolution of a new practice culture.

We will first describe in detail the research approach, plan, and methodology – in other words, we will describe how the research team is using CBR to reconceptualize, act as a catalyst, and transform PHC delivery.

Community-based research

CBR as applied to this project was developed by the authors in conjunction with the BC Health Research Foundation (Hills and Mullett, 1996). Combining the elements of community development with the rigour of action science, CBR is 'a collaboration among community groups, practitioners, decision/policy makers, and researchers for the purpose of creating new knowledge in order to bring about change' (Hills and Mullett, 1996). Community in the current context refers to the community of inquirers who are practitioners. It is the goal of this project to enable change within this community to transform PHC delivery.

CBR engages stakeholders who are in positions to affect change and, in so doing facilitates the uptake of the knowledge needed to make change. There are six defining characteristics of CBR that distinguish it from other forms of research and from other forms of community research that are done on or for communities (Hills and Mullett, 2001):

- *CBR is a planned and systematic process*. Community-identified issues are formulated into researchable questions and plans are made for systematically collecting and analysing data. 'This formalized research process creates new knowledge upon which to base practice. It is the focus on the rigorous documentation of knowledge development that distinguishes CBR from community development' (Hills and Mullett, 2001).
- *CBR is relevant to the community*. The research is grounded in the daily practices and activities of the community and results in decision making by the community or generates information that the community can use.
- *CBR requires community involvement*. The research is driven by a partnership between the community, the researchers, and other stakeholders, creating a synergistic alliance that maximizes the unique contributions of each partner.
- *CBR has a problem solving focus*. Designed to illuminate and solve practical problems, CBR focuses the research endeavour on the day-to-day activities of community members and practitioners in order to make those activities more health promoting.
- *CBR focuses on societal change*. The intent of CBR is that those involved will develop new

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ways of thinking, acting, behaving and working by engaging in a collaborative research process.
- *CBR contributes to the sustainability of initiatives in the community*. CBR is planned with sustainability in mind, often in the form of a new programme that is developed or a new service that is delivered, and always through the enhancement of community capacity to do future research and evaluation.

The movement towards systemic implementation of community-based health care began in the 1940s and 1950s, with the term 'community-oriented primary care' (COPC) popularized by Sydney Kark and his colleagues in South Africa (Abramson and Kark, 1983). COPC, described as 'a form of integrating practice of primary care … [where] an essential feature … is the development of defined community health programmes, within the framework of primary care, to deal with the health problems of the community or its subgroups, as determined by epidemiological appraisal' (Abramson, 1984, p. 437), has provided much of the foundation for a community approach to health care. Its scope is related to CBR in its collaborative manner, its community orientation, and its alignment with the components of PHC: accessibility, comprehensiveness, co-ordination, continuity, and accountability. However, it is argued that COPC emphasizes service delivery while sacrificing community participation (Tollman, 1991; Iliffe and Lenihan, 2003); whereas CBR aims to increase research capacity within the community, and thus provides the necessary framework to adopt research-led change in PHC.

In a recent review, Israel *et al.* (1998) conclude: 'the renewed interest in the rhetoric and realities of community-based approaches to public health in the past few years has highlighted CBR as one of the viable approaches to the development of knowledge and action in the field of public health' (p. 175). Israel *et al.* (1998) describe 13 advantages of using CBR that were identified from their review of the literature. Their findings corroborate the authors' experiences, particularly that 'CBR creates theory that is grounded in social experience, and creates better informed/more effective practice that is guided by such theories' and that CBR provides the opportunity 'for communities and science to work in tandem to ensure a more balanced set of political, social, economic, and cultural priorities, which satisfy the demands of both scientific research and communities' (p. 181).

Definitions and principles: the fundamentals of PHC

As a preliminary point, it is important to note that *primary health care* is not the same as *primary care* despite the terms being used interchangeably (Hills and Mullett, 2001). *Primary care* properly refers to medical (physician) *care* that is delivered at a patient's first point of contact with the health care system. On the other hand, *primary health care* refers to a wide-ranging *approach* to the delivery of a comprehensive variety of health services. Another way of distinguishing the two terms is that 'primary care' is used as a noun; 'primary health care' is a verb. The discussion here is focused exclusively on an approach to health service delivery, that of *primary health care*.

PHC is not a new phenomenon, having been implemented in various ways, in various countries, at various times in history. PHC *per se* obtained global recognition in 1978 when the World Health Organization Alma-Ata Declaration defined and outlined the philosophy and principles of PHC.

> Primary health care is essential health care made universally accessible to individuals and families in the community by means acceptable to them, through their full participation and at a cost they can afford. It forms an integral part both of the country's health care system of which it is the nucleus and of the overall social and economic development of the community … It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work and constitutes the first element of a continuing health care process … Primary health care addresses the main health problems in the community, providing promotive, preventative, curative, supportive and rehabilitative services accordingly
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> (World Health Organization, 1978).

Since the Alma-Ata Declaration, various language has been used to describe PHC and, although the

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terminology and structure varies, certain features are consistently described as requisite components:

- *Accessibility*: PHC promotes universal access to health care services and resources and removes preventable economic, geographical, cultural, physical, social, linguistic, and other barriers.
- *Participation*: PHC requires community and individual participation in planning, organizing, operating, evaluating, and controlling health care; it provides resources to enable community members to participate fully, and it fosters empowerment enabling communities to take responsibility in achieving health for their members.
- *Integration across disciplines and sectors*: PHC is a comprehensive approach to health care delivery, evaluation, and management that includes all components of the health sector as well as the co-ordination of services with other sectors that impact health such as: housing, employment, agriculture, and education.
- *Essential services*: According to PHC principles, health cannot be viewed in isolation from the social, political, and physical environments in which people live. The available resources must include a range of health promotion, preventive, curative, and rehabilitative services that communities define as essential to maintaining the health of their members.
- *Equality and equity*: PHC emphasizes the social determinants of health and seeks to correct unjust and unequal distribution of health resources and imbalances of power in health service planning and delivery.

The rhetoric of the promise of PHC

Where the key features of PHC have been implemented, there is evidence of improved quality of health, greater usage of preventative and health promotion services, innovative practice, improved integration of health and social services across provider settings, peer support and stimulation for practitioners (Angus and Manga, 1990). While provincial governments are now recognizing the benefits of this model, their strategic plans are, at best, half-steps towards needed reform and, at worst, more rhetoric without action. In Canada, the situation is particularly acute since these governmental strategic plans are internally inconsistent in how the rhetoric is operationalized into action.

Transforming rhetoric to practice

This section of the paper describes the inquiry team, methodology, and research plan. The team's preliminary findings illustrate the potential of this type of CBR approach for creating change. In order to create evidence-based, holistic, co-ordinated, and person-centred frameworks for PHC practice, the inquiry team will constantly integrate theory and practice as it cycles through six iterative phases of action and reflection.

The inquiry team

The inquiry team is the engaged 'community' with whom the research is performed. The study originated in two of the five diverse health regions of BC, with the three other health regions scheduled to become involved in the third year of the project. As a result, the inquiry team is currently composed of researchers from two universities (one in each region), practitioners and community members from two PHC centres (one in each region), decision-makers from the regional health authorities and policy-makers from the BC Ministry of Health. With the strengths and diversity of the research team and the geographic locations of the participating partners, the research project is able to examine issues related to the delivery of PHC services from several perspectives. These perspectives range from the personal (gender, aboriginal/nonaboriginal), to the geographic (remote-rural/urban) to the subject-specific (chronic disease management, women's health).

Methodology

In general, *how* this research is being conducted (CBR) is as important as the *what*, the substantive area that is being studied (frameworks for PHC practice), because the methodology synthesizes the knowledge and theory of the scholarly literature to date with the experiences of health professionals into a new model for practice. The crux of CBR is this interrelationship between theory and practice. As Hills and Mullett (2001) explain,

> … Community-based research does not hold theory as something that is 'known' and that 'informs' practice … In community-based research, it is the cycling through the iterations of action and reflection in which experiential

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knowledge and empirical knowledge are considered in relation to practice that creates praxis and that generates evidence for future practice. This grounds practice in theory and generates theory from practice.

The inquiry team utilizes CBR as a fundamental philosophy (research approach) and co-operative inquiry as its primary research methodology. This combination of approach and methodology simultaneously investigates and implements change and thus translates the theory and rhetoric of PHC into action.

Research approach and research methodology

Co-operative inquiry

Co-operative inquiry was selected as the methodology for this research because of its philosophical congruence with CBR (Reason, 1988; 1994). Co-operative inquiry was developed in the late 1960s/early 1970s by John Heron who determined 'that only shared experience and shared reflection on it could yield a social science that did justice to the human condition' (Heron, 1996, p. 2). It is a collaborative, participatory, and action-oriented research methodology that performs research *with* rather than *on*, *to* or *about* people. This methodology engages people in a transformative process of change by cycling through multiple iterations of action and reflection.

Co-operative inquiry has much in common with action research in the participative and collaborative nature of the two methodologies (Heron, 1996, p. 7). Action research, the result of Kurt Lewin's work in the 1940s, has developed into 'a participatory, democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes, grounded in the participatory world view … It seeks to bring together action and reflection, theory and practice … in the pursuit of practical solutions … and more generally the flourishing of individual persons and their communities' (Reason and Bradbury, 2001, p. 1). Co-operative inquiry, however, goes beyond action research in its ability to inquire into the human condition, its method of incorporating human sensibilities as mechanisms of research, its set of procedures for experiential inquiry and its use of inquiry as an informative and transformative process (Heron, 1996, pp. 7–9).

Co-operative inquiry is based on the following three foundational assumptions (Reason, 1994; Heron, 1996; Heron, 1998; Hills and Mullett, 2000):

1) *People are self-determining*. Researchers conducting co-operative inquiry view people as 'authors of their actions' and assume action is based on intelligent choice and intention. In order to interpret or understand human action, the actors must be involved in the decisions about how they will participate in the research and what meaning can be interpreted from their actions. In this research project, all participants who generate data will be involved in interpreting the meaning of the data. Participants unfamiliar with data analysis procedures will learn from experienced researchers in order to develop the necessary skills.
2) *An extended epistemology.* Co-operative inquiry acknowledges at least four types of interrelated knowledge. Experiential knowledge is knowledge that is created as a result of our direct encounters with persons, places, or things. Presentational knowledge is grounded in experiential knowing and is our representation of our experiences in spatiotemporal images such as drawing, writing, or story-telling. Propositional knowledge is factual knowledge, knowing about something conceptually. Practical knowledge is knowing how to do something – knowledge in action. 'This [practical] form of knowing synthesizes our conceptualizations and experiences in our actions' (Flanagan, 1954). By cycling through phases of action and reflection, members of the inquiry team will build theory by examining their experiences and practice of PHC in relation to their own knowledge base and current literature on PHC (praxis).
3) *Critical subjectivity is required.* As part of the inquiry process, participants have the opportunity to develop an awareness of the explanations that they apply to their actions in the world and to see the extent to which their experiences are congruent with these ideas or theories. In this way, both theory and practice are developed. This developed form of consciousness is called critical subjectivity (Reason, 1994). Members of the inquiry team will become increasingly aware of their PHC practices and will, as a consequence, be able to change their practices.

Structured framework for co-operative inquiry

Co-operative inquiry uses a structured framework that consists of a series of logical steps, including: identifying issues/questions to be researched, developing an explicit model/framework for practice, putting the model into practice, recording the results, reflecting on the experience, and making sense of the whole venture (Reason 1988; Hills and Mullett, 2000). In this way, 'evidence about what constitutes "best practice" is generated by people examining their experiences in practice and reflecting on those practices' (Hills and Mullett, 2001). These logical steps take place in conjunction with reflection meetings.

The research plan – strategies/key activities and outcomes

The inquiry team is engaged in a number of iterative cycles of action and reflection. In each cycle, team members develop theory in relation to their experiences of testing frameworks for PHC delivery (practice) in their daily work as practitioners. This methodology keeps the research grounded in the reality of practice and therefore has the potential to impact change by engaging practitioners and decision-makers in this reflective transformative process. The impact of the research approach and methodology is evaluated at each phase of the process.

In the initial year, the inquiry team established a programme of research to be carried out over the five-year period. On each practice site (James Bay Community Project and Central Interior Native Health Society), CBR and co-operative inquiry are being used to develop and test models of PHC delivery. In the action phase of the research, the team will work with the practitioners at the partner PHC sites to implement these test models or frameworks for practice.

Since community action research builds relationships and collaboration among organizations and researchers, generates collective reflection and facilitates sustainable change (Senge and Scharmer, 2001), this project has the potential to reach and benefit diverse populations. In each phase of the project, inquiry team members will consider the lessons learned in relation to their constituent group. For example, Ministry of Health representatives responsible for policy will examine how policy is affecting the delivery of PHC services. In this way, the group will be continuously examining and applying critical perspective variables such as rural-remote/urban settings, aboriginal/nonaboriginal populations, and gender, at the community, regional, and provincial levels. Because of the iterative nature of the research approach and methodology, the team will accommodate the integration of learning as it is occurring.

The outcomes of the research will include:

1) a comprehensive evidence-based framework for health care delivery based on the fundamental principles of PHC, that incorporates self care and health promotion;
2) a comprehensive understanding of best practices in community health service delivery;
3) enhanced community capacity to engage in ongoing research and evaluation related to health planning.

Research phases

There are six phases in the five-year research plan. Research questions, methods and outcomes were identified for each phase of the research and are included in Tables 1–6. At this stage of the research, Phase 1 is complete, the findings of which are described in the following pages. Phases 2 and 3 are partially complete.

Phase 1: building capacity within the team for research and determining the key elements of PHC (months 1–10)

During this phase the team was oriented to the principles and practices of CBR, co-operative inquiry and PHC. The team conducted a document and literature review and held a community forum to ascertain community members' perceptions of the critical elements of PHC. In addition, data about health professionals' perceptions of the critical elements of PHC practice were collected from practitioners working at PHC centres using a critical incident method (Flanagan, 1954). Based on the findings and their experiences, the team constructed a tentative framework for PHC practice. The team also used the community forum to allow community members to assist in the development of focus group questions for the subsequent phase of the research.

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Table 1 Summary of Phase 1: building capacity within the team for research and determining the key elements for PHC

Research question	Methods
How can capacity for research be built or increased within the team and what is the current state of knowledge about PHC practice?	Document and literature review, reflection meetings
What are the key elements of PHC?	Community forum critical incidents (practitioners), reflection meetings
Outcomes: • Community members perceptions of PHC practice • Knowledge development of team members • Tentative framework for PHC practice • Draft questions for the focus group • Confirmation of methods for the next stage	

Table 2 Summary of Phase 2: putting the framework into practice

Research question	Methods
What are practitioners' experiences of implementing PHC frameworks in practice?	Narrative accounts of practice (recording daily accounts), focus groups with practitioners
What are the client's perceptions of the care they receive when this model of care is implemented?	Focus groups with clients
Outcomes: • Practitioner's perspectives on using the practice framework to deliver PHC services • Clients perspective on the delivery of PHC services • Exemplars of PHC practice	

Table 3 Summary of Phase 3: reflection and making sense of the experience

Research question	Methods
What are the gaps in the PHC framework for practice?	Reflection meetings (analysis of notes)
What has been learned about implementing PHC? What more do we need to know?	
What impact has involvement in the project had on participants?	Semi-structured interviews with team members, practitioners, and clients
Outcomes: • Revised framework for PHC practice • An understanding of the gaps in PHC practice • An understanding of team and community members' learning	

Phase 2: putting the frameworks into practice (months 10–18)

The practitioners will implement a tentative model of comprehensive, holistic care, incorporating the key elements of PHC and will record their experiences in daily accounts (stories) of their PHC practices. In addition, the practitioners and clients will participate in focus groups to ascertain their experiences of health service delivery using the model of PHC practice.

Phase 3: reflection and making sense of the experience (months 19–24)

The tentative PHC model developed and implemented in Phase 2 will be considered in relation to all data analysed to date. The notes of team meetings will be analysed and the team members will be interviewed.

In Phases 4, 5, and 6 the revised framework will be implemented and reviewed in other sites in BC; educational materials will be developed and

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Table 4 Summary of Phase 4: implementation of revised framework

Research question	Methods
What does the PHC framework look like in practice?	Participant observation
How does the PHC framework influence practice?	Participant observation
What is the impact on the community of implementing a PHC practice framework?	Participant observation, interviews with other agencies (phone), interviews with clients (face to face)
Outcomes: • A comprehensive framework for PHC practice • Knowledge of the impact of implementing this framework for practice	

Table 5 Summary of Phase 5: synthesis and development of educational materials

Research question	Methods
What have we learned about PHC practice?	Reflection meetings
What are the educational needs of others wanting to develop or implement frameworks for PHC practice?	Pilot testing workshops on PHC frameworks and CBR
Outcomes: • Workshops in two regions on developing frameworks for PHC and conducting CBR • Evaluation of training materials, including a videotape that can be used by other PHC centres to develop programmes • Illustrative videotapes and user-friendly workshop manuals on effective PHC delivery	

Table 6 Summary of Phase 6: ongoing consultation with all sites and dissemination

Research question	Methods
How can knowledge gained be disseminated (ongoing consultation)?	At each phase stakeholders will be involved through: community forums; writing community newsletters; distribution through existing networks; meetings with community agencies and public health organizations
How can the knowledge gained be disseminated (final phase) to allow for the adaptation of frame works to fit needs?	Educational materials, ongoing consultation
Outcomes: • Revision of workshop manuals and distribution to all health authorities in Canada • Publication of research findings in academic journals and at academic conferences • Educational materials for health regions and community health agencies • Revised framework for the implementation of PHC	

dissemination with all sites and workshops will be created.

The final phase of the project will be dedicated to revising workshop manuals and materials and distributing them to other health authorities throughout Canada. In addition to disseminating research findings at academic conferences and in academic journals, educational manuals will be produced for health regions and community health agencies. These will be designed to distribute the framework developed for PHC practice, but more importantly to teach others how to adapt or develop innovative frameworks to fit their particular needs.

Results to date

The research methodology contributed to team members' learning and created the opportunity for practitioners to reflect on their practice. Twenty-one

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critical incident interviews were conducted with care providers in the health centres, and included: a social worker, a counsellor, physicians, nurses, the nurse practitioner, and outreach workers who provide care for seniors and other special groups. The interviews were analysed for common themes and to determine key elements of PHC as perceived by the providers.

Prior to discussing the results of the interviews, team members reviewed a summary of a document analysis describing inconsistencies in the rhetoric of PHC within Canada, within the rhetoric of the key features of PHC, and inconsistencies within the strategic plan. The critical incident interviews were used as a device to derive concrete examples of how PHC is enacted in practice or alternatively where it is missing. From these examples, critical elements of PHC were extracted to form the basis of a framework. After the critical incident interviews were completed and transcribed, a preliminary analysis was performed.

This resulted in two sets of analyses from which to begin discussions. From the critical incident interviews, five main categories of participant-identified examples of good PHC were identified:

1) *Supportive, flexible structures, roles, and resources*. Described as necessary to support PHC practices, these structures included the organizational culture, the reporting relationships and funding that reflected practice goals.
2) *Collaborative 'team'/collaborative practice.* Collaboration was described to include: a shared definition and philosophy of health, strong relationships between providers, value placed on the contribution and trust of team members, familiarity with the roles and contributions of each provider *vis-à-vis* the health of the patient, immediate access to other practitioners, opportunities for formal and informal interactions, and peer support.
3) *Sense of belonging/ownership.* This element referred to the sense of ownership the community has for the centre that was achieved by the high degree of accessibility and community participation in centre activities.
4) *Client-focused/integrated care.* This included involving the patient/community members in identifying needs and in planning care, progress, and follow through. Client-centred care was further characterized by active follow up, home visits, outreach and appropriate timing and length of appointments including longer visits when necessary.
5) *Equity or power.* This entailed addressing patient/citizen rights, promoting the equality of team members, and changing attitudes that view better care as that achieved by seeing a physician rather than other practitioners or groups of practitioners. A point of disagreement centred on the 'ownership of care' or where the responsibility of care lies.

Reflecting on the data

A reflection meeting (focus group) was held with 12 of the interviewed team members to present the preliminary analysis of emerging key themes; to allow for elaboration of the findings with the interviewees; to provide interviewees with an opportunity to discuss the summary and reflect on the responses; and to create new knowledge through the synergy of the group discussion. Note that this key feature of the methodology, 'knowledge exchange', is continuous throughout the project rather than an activity that is only engaged in at the end of the project.

The meeting commenced with an overview of the project and a reiteration of its goal to develop an evidence-based, integrated, person-centred holistic framework of PHC that incorporates all of the key features of PHC. Participants were provided with a summary of the initial analysis of the interviews outlining the five key elements and anonymous examples selected from the transcripts to illustrate the themes. The five main categories of participant-identified examples of good PHC were congruent with the five key features of PHC previously described (accessibility, participation, integration across disciplines and sectors, essential services, and equality and equity).

The first theme did not generate much disagreement as most participants were united in their ideas about the types of funding and support structures required to achieve effective PHC. Discussion quickly moved to the second theme of 'team work', which included: the importance of a shared philosophy of health, recognizing the value of each other's contributions, and trusting the judgement of colleagues. The importance of housing a multidisciplinary team in one building was noted as

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essential to facilitating effective multidisciplinary practice by allowing practitioners to understand each other's roles and providing immediate access to other practitioners. This gave rise to a discussion of the essentiality of creating a cohesive team at the health centre. It was revealed through dialogue and case examples, that although collaboration occurred amongst medical service professionals, the contribution of social services practitioners was under utilized. The neutral forum in which the discussion took place allowed team members to reveal how they work together.

The third element, a sense of belonging, generated very intriguing examples of how some clients evolve from just 'hanging out', to volunteering for programmes and finally, to accessing services themselves. In this way clients give and receive services at the centre. Discussion then ensued concerning how to reach clients who may have greater needs but are designated 'hard to reach'. If accessibility and equity are two of the principles of PHC, then the centre cannot rely solely on clients discovering the centre, but must actively promote outreach services.

There was a lack of agreement on the fourth element: client-centred care. Though participants agreed on the need for client-centred care, there was little consensus on how this type of care is practiced. Participants were reminded of their agreement on the importance of collaborative practice, a sense of belonging and commitment to the health centre. This consensus provided a baseline from which discussion about how to achieve client-centred care was pursued.

One participant expressed his frustration of being urged to '*think global – think broad, but put it into practice*'. In particular, he referred to physicians that are exhorted to deal with poverty, population health and housing issues. This created the opportunity for another practitioner to provide an example of what can be achieved if people are *thinking* in an interdisciplinary way. The practitioner described sending a client to a social worker after determining from her intake interview that her pressing issue was substandard housing. This client was new to the neighbourhood and unaware of resources available to her. As the first point of contact, the physician was able to connect her with the needed services to remedy the underlying problem and mediate her health issues.

Further reflection resulted in posing the question: 'What changes are needed for all team members to value their contribution and the contribution of others?' Several actions were recommended at the system level, while others were aimed at the individual level, including making a personal commitment to try and understand more about what other practitioners do and to establish relationships with them. In reference to the 35–40 staff in the clinic, one participant remarked '*I'm going to say hello more often*'.

Though issues such as the value of relationships and the power to take leadership roles were mentioned, the last theme, concerned with power and equity, was not discussed as openly as the others. It may be the case that such issues are potentially destructive to relationships and team members want them to be handled more delicately. These issues will be addressed at a future meeting.

At the end of the meeting, concrete actions for behaving differently both as a group and as an individual practitioner with a client or fellow worker were outlined. Directions for future research questions to help inform the evolution of the clinic were also created. Furthermore, how the research results could be used to inform government funding decisions was discussed. The meeting concluded with a shared understanding of the key elements of PHC and recognition that small strategies for change could be implemented immediately.

Reflection on the progress of the research

In conjunction with conducting interviews and analysing government documents, two reflection meetings were held with the entire inquiry team. At these meetings the research progress was assessed, as were key findings to date and future directions. These meetings also served to reinforce the principles of PHC and contribute to the reflection on practices.

In depicting a formalized model of reflection, Boud *et al.* (1985) describe '*how the learner works on the experience, links new knowledge with old and reexamines the initial experience in the light of his or her own goals, integrates learning into his or her existing framework and rehearses it with a view to subsequent activity*' (p. 21). In order to achieve integration of new knowledge, one must be able to recollect what has taken place and see 'in the mind's eye' an event as it happened. The research data

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facilitates this process and allows the participants to observe what occurred and their reaction to it in their transcripts. Translating knowledge into action requires individuals to question their actions with regard to the purposes they are pursuing (Dewey, 1933).

Conclusion

Through the critical incident interviews and the subsequent reflection meeting, initial barriers to achieving PHC and multidisciplinary practice were revealed as both the problem and the place where immediate change can occur. It is clear in this community health centre that there exists:

a) some inherent values and power relations with regard to physicians' practices *vis-à-vis* other practitioners;
b) a sense that ultimate responsibility lies with the physician for any care received by clients at the centre;
c) a pervasive disease-oriented view of health rather than one which includes social and economic determinants; and
d) ambiguity in the definition of roles and the interplay of those roles in a multidisciplinary setting. The key features of PHC, namely, accessibility, participation, integration across disciplines and sectors, a range of essential services, and equity, require an evolution that begins with addressing these elements in partnership with practitioners.

The iterative process of collecting data, examining it, reflecting on how one can change one's practice and attempting to implement these changes, is a great facilitator of change. Changing one's way of thinking or practicing requires, as Dewey (1933) claims, careful consideration of one's belief system and understanding. It is our experience that CBR, in particular with a co-operative inquiry methodology, creates the opportunity for this consideration and a respectful atmosphere, where options for change may be discussed. The purpose of the co-operative inquiry approach is to facilitate a collective analysis of the data, where the 'results' are the outcomes of a structured process of critical dialogue and each perspective is challenged.

The skills and resources necessary to bring about a PHC-led model of health system reform can be overwhelming. Researchers can help by exposing the detailed, practical barriers to positive change. Without a focused, systematic, participatory research methodology, research and practice in PHC renewal and reform will continue to resemble two ships passing in the night. For professionals attempting to learn new ways of working in multidisciplinary teams, while at the same time restructuring their practice around a genuinely patient/client-centred model of care, a sensitive, exploratory, yet deeply critical research methodology is necessary. Crucially, the research methodology must allow, through an iterative cycle of action and reflection, the research questions and objectives to be modifiable within the actual needs of the practice as they arise throughout the research process. The co-operative inquiry approach to CBR can offer a manner of thinking together, through critical dialogue, with all the key stakeholders finding the most promising and realistic paths from the agreed upon rhetoric of PHC philosophy, a truly integrated, collaborative practice of community-oriented PHC. Although this research project is in its preliminary phase, it is anticipated that the results will influence health service delivery across Canada.

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