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Health Beyond the Overpass: Assessing Adult Learning in a Rural Community-Based Cardiovascular Education/Rehabilitation Program

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Abstract: This paper reports the findings from a multi-site "Community Cardiovascular Hearts in Motion" (CCHIM) program. The case study examined informal learning experienced by 40 program participants in a 12-week cardiac/rehabilitation program offered in five rural communities. The effects of this learning and barriers to adult learning are highlighted, along with aspects of program design and facilitation that support learning in this context.

In Canada and elsewhere we have a great deal of information on health but less on the links between health and adult learning. While we are aware that health and wellness depend on individual motivation, as well as support from a variety of interpersonal, community and institutional sources (Hill & Ziegahn, 2010), many challenges remain in understanding how to enable learning that leads to citizens exercising more control over their health. Much is known about the wide range of contributing factors that affect health—biology and also factors beyond the individual, including societal structures. However, little practical and theoretical consideration has been given to the role of adult learning in these processes (Bryan et al., 2009). Furthermore, existing theories do not fully integrate a systematic adult learning component or address ways that change can come about (English, 2010).

To inform an understanding of adult health learning, this paper reports a case study of a "Community Cardiovascular Hearts in Motion" (CCHIM) program in five rural communities in Nova Scotia. The study examined informal learning experienced by 40 program participants in a 12-week cardiac/rehabilitation program; the effects of this learning on their day-to-day health practices and barriers to adult learning are highlighted. The study also examined learning experienced by members of the interdisciplinary health care team, as educators and facilitators of this community-based program; this is not reported here. Community-based delivery has long been advocated by health educators as a strategy for achieving population-level change in risk behaviors and health (Merzel & D'Affitti, 2003). This focus on community and population-based health determinants has evolved in recent decades and represents a shift in emphasis from individually focused explanations of health behavior to one that also encompasses social and environmental influences.

The applied learning focus in adult education provides a way of exploring participant experience to discern how and what they learn, how they are motivated, and how learning leading to action can be supported. This paper reports on these elements in the CCHIM program, and aspects of program design and facilitation that stimulated informal learning and an increased sense of control and well being among participants in the program. The adult education literature (e.g., UNESCO, 1999) reinforces that informal learning in non-formal health education programs can lead to significant improvements in health and general wellbeing.

Health Development, Health Demographics, and the Health Education Context

As early as the 1970s it was becoming apparent that basic health needs could only be met through the greater involvement of people themselves (Wass, 2000). As part of a global *health promotion* discourse intended to shift a preoccupation with the existing sick care system to a focus on promoting health and wellness, successive international health agreements emphasized education as a key strategy for health development (Hancock & Minkler, 2002). Emphasis in practice was to be placed on shifting of control from health professionals to the community, and working *with* people to enable them to make decisions about their health needs and how best to address them. The overt ideological agenda was that the increased involvement of people in health decision making would remedy inequalities and achieve better and fairer distribution of health resources (Tones & Tilford, 2001). Influenced by educational thinking of the time (e.g. Freire, 1970) concepts of participation and empowerment were popularized, and dialogue and active adult learning methods were promoted to help people examine the underlying issues behind the health problems they identified. Community participation and learner involvement became shared principles of health and adult education; both fields were being developed to empower people to learn and encompass individual and societal change. Despite this early enthusiasm, there has been limited success in subsequent decades of working with people in participatory and emancipatory ways to reclaim health (Laverack, 2007). Little progress has been made on closing the gap in health status between different social and economic groups in society (Wilkinson, 2005). As a result, preventable chronic diseases are on the increase comprising 60% of all deaths globally; 80 % of these deaths occur in low and middle-income countries, suggesting that an important underlying cause of all these deaths is poverty (WHO, 2002).

There is an urgent need to move beyond an emphasis on individual health. While the health education literature emphasizes health as affected indirectly though enhancing social competence, social support and community debate (Minkler & Wallerstein, 2008), health education practice remains firmly rooted in providing health information and developing effective intervention strategies to encourage adults to work on individual lifestyle choices (Laverack, 2007). Recent developments in the area of health literacy, focusing on improving access to health information and the capacity to use it effectively (Schecter & Lynch, 2010), are encouraging; health literacy enables citizens to navigate health facts and resources and to develop the personal and social skills to make positive health behavior changes (Nutbeam, 2000). However, this emphasis risks the narrower view on individual health learning and behavior change. Health education involving dialogic and empowerment approaches, and participatory and community-based learning, is now more relevant than ever in order to act on the social, economic and environmental factors conducive to healthy lifestyles and self- reliance.

Background and Methods

CCHIM participants were referred patients either having experience, or at high risk for, cardiac, cerebral or peripheral vascular disease. The program involved comprehensive risk screening before, during and following participation in the program, including at 3 months and a year following participating in the program. The program provided education related to heart health, nutrition, and physical activity, and access to exercise programs and pharmacotherapy, when needed. All groups had completed the program, although the length of time varied which afforded opportunities to discuss the challenges of sustaining learning and behavior change beyond the CCHIM program. A case study methodology was used. The range of qualitative methods included five group interviews (eight to 10 participants) and five individual interviews

(one per group). A participatory collage exercise preceded each of the participant interviews to establish the broad determinants of health as the context for discussion.

Participant Learning

Informal learning is learning that occurs as a result of individuals making sense of the experiences they encounter in their daily lives (Livingstone, 2005). Through critical reflection of their experience in the CCHIM program, participants identified informal and transformative learning that enabled them to take action related to their health. This learning was strongly linked with aspects of motivation, program design and facilitation; participant learning is discussed here in relation to these aspects. No particular distinction between group and individual experience and learning were noted; hence, the discussion is across all the participant interviews.

Not surprisingly, fear provided the initial motivation to participate in the CCHIM program. A major heart event, or threat of one, provided a wakeup call and a disorienting dilemma (Mezirow & Taylor, 2009) which challenged taken for granted assumptions of good health. Reclaiming health provided the key incentive for individuals seeking to be referred, or in accepting a referral to the program, and a lack of financial resources or access to transportation were not constraints, as all costs were covered. Entering the program, however, represented a "leap of faith" for many, who felt hesitant and anxious about their participation and performance in the program. However, this anxiety was mitigated to some extent by their shared experience of heart and other related chronic diseases. Identifying with the experience of others enables people to make meaning of their experience, which provides a motive to engage in learning (Kinsella, 2007). This potential for the program to provide a social space for sharing, meaning making and learning was identified as an incentive by some participants. For example:

"I was attracted because of the group aspect. I hadn't realized much progress working on my own with my family doc … so while I knew I would learn from the health professionals, I had a sense that in hearing others' stories that were similar to mine I would be able to make sense of why my life has ended up like this, and what I might do to change things… After all, we were all in the same boat … and that was the most appealing part for me".

Any subsequent lack of initial motivation was further mitigated by individual interviews called "consent interviews" held with participants prior to the program, to assess their readiness for change. Based on a self-management philosophy that individuals living with a chronic disease have the knowledge, skills, judgment, ability and confidence to be an expert in the management of their own health and wellness (Rachlis, 2004; Edwards et al., 2000), these pre-interviews increased participant motivation and commitment significantly. Participant accounts reveal classic transformative learning in this process, as they reflected on their previously held assumptions, and alterative perspectives and possibilities (Mezirow & Taylor, 2009). Through dialogue with facilitators about their readiness, they were able to reframe their thinking and to see themselves as more centrally involved in taking action related to their health. Ownership, as highlighted in the following comment, is integral to developing a capacity to engage with prevention activities (Merzel & D'Affitti, 2003):

"When they asked what I wanted to change and how committed I was to change, I didn't know what to say. I really had to think about what I would change and how I would change it … and if I was ready for that… Up until I had the heart attack I hadn't really given any thought to my role

in all of this….but they [facilitators]said it had to come from me … and they would support me ….that was a turning point …. I began to think about myself differently … and to feel that I really could change; reorienting my thinking in this way really made for a great start for me in the program".

Given that program planning is a social process of negotiating power and interests (Cervero & Wilson, 2005) it is clear that the foregrounding of the needs and goals of the participants, as an element of program planning, enabled participants to begin the program with greater confidence and a belief in their power and ability to set goals and to produce the desired results. Motivation to learn has long been connected with a sense of self and self-efficacy (Wlodkowski, 2008).

Transformative learning as a collective process was also noted in the early stages of the CCHIM program, as participants began to recognize the views of others as indispensable in making sense of their own experience. As they tested out and received reinforcement for these new perspectives from participants and group facilitators, they were able to accept these ideas, and to report feeling transformed. As participants worked together to identify new possibilities and choices for change, levels of trust increased and power differentials diminished as group members and facilitators realized significant co-learning and progress towards their shared goals. This experience, as highlighted in the following comment, reinforces that informal interaction with peers is often a predominant way of learning (Boud & Middleton, 2003):

"They [facilitators] were giving us all kinds of individual attention, and they encouraged us to be a little more open about our condition and to share some things with the group, and over time there was this trust that built up in the group. We were learning from each other and encouraging each other, and that made you feel better about trying new things … and the facilitators were part of that. They really didn't separate themselves from us in the way you might expect".

High levels of motivation enabled participants to engage with the program, and to adopt healthier living practices; while in the program most achieved significant improvements in health status, including weight loss and measured improvement in cardiovascular performance, blood pressure and cholesterol levels. Follow-up assessments at three months and a year provided an incentive to maintain these outcomes and some participants reported remaining highly motivated and committed to newly established health practices.

For others, sustaining motivation beyond the life of the CCHIM proved more challenging:

"It is a year and I guess I have let things slide somewhat … I do go to the diabetic clinic in [town name]; they give me resources but they are hard to follow on my own and … that is probably one of the biggest things for me…we are here and doing all this in a group…. then you are on your own and it's hard to keep at it… no reinforcement and, well there are some programs around here, there is the gym, but I just can't go to the gym on my own….if I had someone to go with perhaps".

Planned health education sessions on their own do not have significant public health impact because their reach is limited (Vijgen et al., 2008); maintenance of behavior change

beyond such programs is dependent on social support and a supportive community environment (Bandura, 2004). The CCHIM was promoted as an opportunity for individuals to acquire the tools to sustain good health beyond the program, but many participants worried about sustaining health gains beyond the program; highlighting that access to a continuum of social supports and access to health information beyond the CCHIM was important. Although they were encouraged to access local resources, particularly a "Your Way to Wellness" program —a peer- facilitated program that helped people living with chronic conditions learn to deal with everyday challenges—the program was only six weeks long and not available in every community.

Related to social support, the group structure provided an opportunity for social contact for people who reported social isolation in their day-to-day lives, and those with no experience in group settings reported learning how to participate and contribute in a group, as a benefit of participation. In addition to co-learning within the group activities, participants reported experiencing validation, support and encouragement and an increased sense of well being, as a result of the bonding and interconnectedness within the group. These encounters with others highlight spiritual dimensions that enable adults to learn alternate and varied ways of being, and to acquire new insights about themselves (English &Tisdell, 2010).

Aspects of program design and facilitation were cited as supporting individual and group learning, contributing to a continued sense of confidence and control while in the program. For example, the group structure, and the program duration provided an opportunity for reinforcement of the educational content, highly relevant to their lives. Low literacy levels were addressed by adapting print materials or combining dissemination of print materials with verbal instruction, visual aids, and discussion. Through participatory learning activities related to nutrition (e.g., food labeling, calorie counting, and portion size), physical activity and exercise, and medication management, participants explored the content in-depth and detail. Simultaneously, continuous monitoring of weight loss and other health status measurements (e.g., blood pressure, blood sugar, functional capacity measured by a stress test) reinforced individual success. In these processes, a balance of group and timely individual instruction, and an emphasis on progressive individual improvement, enabled participants to stay focused on their goals and action plans, and to progress at their own pace.

For many CCHIM participants learning in the program extended beyond the individual to the broader social, political and economic roots of poor health. As they reflected on their own learning in the program, and consequent changes in their health, they began to critically reflect on the health practices of their children and grandchildren, to broader influences on community health such as poverty and food security. For example:

"I see now that my children and their children's lives have been taken over by machines, they have no time to eat well or to go for a walk. All that convenience stuff and no exercise … they are heading down the same road I was on".

"Why is good food so expensive? You can buy fish from Japan and China cheaper than you can buy what is caught in our own back yard. What is wrong?"

In this process of critical reflection, they reported examining assumptions, previously held uncritically, and coming to new ways of knowing that would safeguard health:

"I don't judge people now because like me, they probably don't have the basic information about good eating or how to take care of themselves".

"Now we know so we have to get the word out".

The capacity to reflect on their real life circumstances and to envision change to improve the health of their communities is a central rationale for community-based health education programming. Community action of this kind is a central concept and goal of empowerment.

Conclusions and Implications

The exploration of informal learning in this case study informs a broader understanding of the adult health learning in community-based health education programs. Generally the study reinforces that health education programs, delivered where people live, significantly increase their motivation and capacity to overcome barriers and exercise control over their health. This paper links mentoring and peer learning with agency; as people learn with and from each other, they are more able to envision change that has the potential to improve and sustain individual and community health. The paper highlights motivational strategies and program design and facilitation considerations that support informal and transformative learning leading to these empowerment outcomes.

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