COMMENTARY

An Outline of the Need for Psychology Knowledge in Health Professionals: Implications for Community Development and Breast Cancer Prevention

Maryam Ahmadian*, Asnarulkhadi Abu Samah*

Abstract

Knowledge of health and community psychology in health professionals influences psychosocial and community determinants of health and promoting participation in disease prevention at the community level. This paper appraises the potential of knowledge on psychology in health care professionals and its contribution to community empowerment through individual behavior change and health practice. The authors proposed a schematic model for the use of psychological knowledge in health professionals to promote participation in health interventions/disease prevention programs in developing countries. By implication, the paper provides a vision on policies towards supporting breast cancer secondary prevention efforts for community health development in Asian countries.

Keywords: Community development - community psychology - health psychology - health professionals

Asian Pac J Cancer Prev, 15 (12), 5097-5105

Introduction

Breast cancer is a major public health concern in developing and developed countries. The World Health Organization (WHO) predicted 84 million people will die of cancer in the next decade if action is not taken (WHO, 2005). More than 70% of cancer deaths in 2005 happened in low-and middle-income countries (Coughlin and Ekwueme, 2009). People in low-and middle-income countries tend to take chronic diseases at younger ages, endure longer and die earlier than those in high income countries (WHO, 2005). What is more, breast cancer incidence rates have been stated to be rising by up to 5% annually in developing countries and mortality rates are often much higher compared to developed countries (Coughlin and Ekwueme, 2009).

Additionally, breast cancers are commonly diagnosed at late stages in lower resource countries, and women may get inadequate treatment, pain relief, or palliative care (Anderson et al., 2003). About 75% of women with breast cancer in developing countries are diagnosed in clinical stages III and IV, while approximately 70% of recently diagnosed women with breast cancer in North America are in stages 0 and 1 (Coughlin and Ekwueme, 2009).

The most remarkable characteristic of the descriptive epidemiology of breast cancer in recent years is the rapidly increasing incidence rates in developing countries. These statistics still underline the psychological, social, and cultural factors influencing breast cancer. For instance, some women may believe that in consequence of a breast cancer diagnosis, they will die. Because of lack of knowledge and negative attitude, women may be reluctant to screen their breast cancer symptoms at the early stage when treatment is most likely to be successful. Thus, health care professionals' commitment towards promoting women's participation in prevention programs and to cure breast cancer should be considered as a world wide effort, specifically in developing countries in Asia. The question here is: are health professionals able to encourage women's participation in breast cancer prevention programs?

We argue that health care professionals and breast cancer advocates should find effective ways to overcome psychological barriers such as beliefs about pain, fear, embarrassment, and modesty in women while at the same time facilitate sustained solutions to breast cancer screening difficulties through public awareness campaigns. In many instances, health professionals are comfortable with interventions around individual-level factors that affect health but many are less comfortable to act at the community-level as they are not trained for it (Taylor et al., 2008). The point is health care professionals may lack community knowledge to encourage women's participation in cancer prevention activities, help their overall breast cancer care, and empower them. For the most part, empowerment is more than an intervention to help women to change their behavior and adhere to a prevention plan for the breast cancer. However, emphasizing the psychological knowledge in health professionals along with empowering women, the role of

Department of Social and Development Sciences, Faculty of Human Ecology, Universiti Putra Malaysia, Selangor, Malaysia *For correspondence: marydian50@gmail.com, asnarulhadi@gmail.com

breast cancer professionals as educators is giving more power to women in order to fight against breast cancer which will be vital in breast cancer prevention and control.

In this paper, we first made some observations in respect to challenges of breast cancer screening in developing countries, particularly in Asian countries. We assumed that health psychology differs from community psychology and we further outlined the need of psychological knowledge among healthcare professionals to facilitate women's participation in breast cancer prevention activities/programs. Therefore, a three-stage model for women's participation in breast cancer interventions and programs was proposed. This three-stage model could be applied by health professionals, policymakers, community health developers and researchers as an approach in community-based breast cancer prevention programs specifically in developing countries.

Health care professionals in this manuscript mainly refers to the health-care professionals engaged in breast cancer prevention and control, such as nurses, midwives, gynecologists, primary care physicians, surgeons, oncologists, and other professionals with specific knowledge and skills in breast cancer advocacy, community development, community health and social work. Breast cancer prevention refers to breast cancer screening methods namely breast self-exam, clinical breast-exam and mammography. All of these tests are examples of secondary prevention activities for women who are without clinical presentation of breast disease.

This commentary paper provides a selective overview of previous literature to provide some insights into psychological knowledge which deserves particular attention in health care delivery system in future. However, psychologists have already had cumulative opportunity to collaborate with health care professionals in addressing crucial health issues. A thorough review of the literature considered no prior studies appraised the recognition of psychology knowledge in health care professional and its impact on community or women's participation in preventive behaviors.

Challenges of Breast Cancer Prevention in Asian Developing Countries

While evidence shows that the mortality rate of breast cancer varies significantly between developed and developing countries, community development has the potential to advance secondary prevention to reduce the mortality rate among women especially in developing countries. Consequently, community-based breast cancer interventions are required to identify the communities' strengths and weaknesses in breast cancer care in order to promote community participation/engagement in breast cancer activities.

According to World Health Organization (1997), social determinants are accountable for 90% of individuals' health outcome. In line with that view, health care professionals need to have an idea on barriers to health promotion related to communities' socio-demographic and psychosocial attributes such as cancer-related beliefs and health behavior change. Nevertheless, many

developing countries also lack population-based breast cancer registries, information, and large scale prevention programs.

The following are some of psychosocial determinants and demographic factors influencing breast cancer screening and its postponement in developing countries and Asian population. It appears that many barriers such as culture, income, education, occupation, immigration status, language barriers, health insurance, access to health care and age contribute to postpone cancer screening and women's suspension in response to treatment (Estrada et al., 1990; Saint-Germain and Longman, 1993; McPhee, 1997; Navon, 1999; Rashidi and Rajaram, 2000; Straughan and Seow, 2000; Abdulah et al., 2001; Katapodi et al., 2002; Petro-Nustas and Mikhail, 2002; Finney and Iannotti 2003; Yu et al., 2003; Juon et al., 2004; Wu et al., 2006; Secginli and Nahcivan, 2006; Ahmadian et al., 2010; Ahmadian, 2011; Ahmadian et al., 2012a; Samah and Ahmadian, 2012). What is more, several studies revealed that, lower screening rate is associated with knowledge on breast cancer and preventive measures (Miller and Champion, 1997; Champion, 1987; Danigelis et al., 1996; Bener et al., 2002; Petro-Nustas and Mikhail, 2002; Juon et al., 2004; Nissan et al., 2004; Chua et al., 2005; Secginli and Nahcivan, 2006; Ahmadian et al., 2012b).

Many literature attempts to clarify different aspects of health-related behaviors, which shown that low self-efficacy, sociocultural attitudes, attitudinal and normative beliefs, social influence along with attitudinal and logistical barriers to screening are critical causes of low breast cancer screening rate among Asian women (Bandura and Adams, 1977; Edgar et al., 1984; Brailey, 1986; Slenker and Grant, 1989; Champion, 1992; Rakowski et al., 1992; Hiatt, 1996; McCance et al., 1996; Crane et al., 1996; McPhee, 1997; Gotay and Wilson, 1998; Lee et al., 2000; Straughan, and Seow, 2000; Rashidi and Rajaram, 2000; Han et al., 2000; Abdulah et al., 2001; Poss, 2001; Katapodi et al., 2002; Wallace, 2002; Im et al., 2004; Petro-Nustas and Mikhail, 2002; Bener et al., 2002; Jarvandi et al., 2002; Garbers et al., 2003; Hisham and Yip, 2003; Montazeri, et al., 2003; Juon et al., 2004; Nissan et al., 2004; Smith et al., 2006; Ahmadian et al., 2010; Ahmadian, 2011; Ahmadian et al., 2011; 2012a; et al., 2012c; Ahmadian and Samah, 2012a).

In addition, Meleis et al. (1995) and O'Malley et al. (1997) mentioned that, physicians are less likely to share information with individuals from different social class, ethnicity, gender, and age. Similarly, health care professionals may also have preconceived thoughts about powerless, uneducated, and obedient women (e.g. Muslim women) (Meleis and Hatter-Pollard, 1995). Therefore, in order to overcome challenges of breast cancer prevention, health professionals to alliances can play a vital role to alleviate health inequality and create healthy communities.

Within this context, community development approaches to health need to focus not only on psychosocial changes, but also on the development of alliances or partnerships between members of marginalized groups and more powerful individuals and agencies who have the structural power to assist them in addressing the social circumstances that challenge their health to avoid

DOI:http://dx.doi.org/10.7314/APJCP.2014.15.12.5097 Psychology Knowledge in Health Professionals: Implications for Community Breast Cancer Prevention

superiority complex (Campbell, 2003).

Therefore, health care professionals are the front line workers who can easily employ knowledge of psychology to distinguish individual and socio-cultural issues, and to implement tailored behavioral interventions in order to improve screening rates in their respective communities. Certainly, psychologists' role in health care delivery has improved but, there is a need for educating members of health care delivery, social workers, advocates and policymakers about the numerous contribution of psychology knowledge in community development practice especially in terms of preventive behaviors such as breast cancer prevention among the underprivileged groups in Asia.

Additionally, there is also a need for giving attention to mechanisms whereby such community level determinants are shaped by broader macro-social relationships, particularly among who often have the poorest health status (Campbell and Jovchelovitch, 2000).

Health Psychology Versus Community Psychology in Relation to Health Promotion

Health and community psychology are areas of research interest with specific reference to factors that affect health and illness. The importance of community and health psychology is clear through the strong emphasis that the World Health Organization (WHO), Ottawa Charter for Health Promotion in 1986 (WHO, 1986), Jakarta (WHO, 1997), and Bangkok (WHO, 2005) Declarations laid on health promotion. Many researches on health and community psychology have been conducted and applied in different aspects of public health and health promotion. Health psychology focuses on factors that predict behavior change, such as individual motivation and cognitive factors. While community psychology studies several determinants of health and the context in which behavioral choices are made (Kelly, 1986; Meritt et al., 1999; Rappaport and Seidman, 2000; Dalton et al., 2001). According to Campbell and Murray (2004), community psychology is a path which has come up in response to the growing concerns about the negligible contribution that typical health psychology has made to disputes about the reasons of health inequalities, and how to tackle these problems.

While, health psychologists try to understand the causes of disease with emphasis on the bio-psycho-social model of health and illness as a result of several different interconnected factors influencing person's life from biological traits to behavioral and social circumstances (Belloc and Breslow, 1972), community psychologists are more concerned with determinants of health which are related to respective social and community backgrounds (Campbell and Murray, 2004).

Community psychology is relevant to the theories and approaches of psychology and social sciences to understand how social powers and inequalities influence individual and community well-being and social justice. In other words, communities are perceived as important social forces in the process of change (Murry and Campbell, 2003; Nelson and Prilleltensky, 2004). Applying community psychology into public health approach is more participatory in nature and involves communities in the design, implementation, and evaluation of programs. In line with that, it has been documented that an important determinant of the success of participatory health promotional interventions is the extent to which they organize or create social capital (Kreuter, 1997).

In this era where there is relatively a large number of practical references regarding community and health psychology, Campbell and Murray (2004) explained how analysis at the community level can contribute to understand the social context of health, and how action at the community level can describe health promoting behaviors. We believe that community and health psychology knowledge helps in changing the preventive behavior of individual and communities who are vulnerable to chronic diseases.

Apparently, many questions are raised whether community and health psychologists have succeeded in promoting health practices in communities at local, national and international levels. In relation to community development and health promotion, the questions are; whether professionals are successful to take action on interventions at the level of individual, groups, community and organizations? Have health professionals provided strategies for preventing diseases such breast cancer and reducing health disparities at the grassroots level? How do health policy makers initiate health programs, administration, and evaluation in developing and less developed countries? Why do poor people have more deprived health situations?

These questions emphasize the need for increasing awareness on health and community psychology in health professionals. The rationale for applying knowledge of psychology by health professionals, for example in breast cancer control underpins their important role in encouraging women to attend screening and provide information, advice, awareness, and assurance at all stages of the screening process. Here, we argued that a community psychology approach from community development perspective is able to provide a broad strategy that will increase the efficiency of health care professionals towards breast cancer prevention.

Whereas health psychology is necessary for drawing attention to the relevance of studying an individual health behavior change and well-being, health care professionals need to put more emphasis on community psychology, social capital and empowerment for the design and evaluation of health promotional program which is aimed to alleviate health inequalities. On the common ground, community psychology and public health has many methods, theories, and values. Similarly, in terms of methods, both fields share advocacy, community organizing, and policy influence.

The concepts such as the interpersonal support, stress and coping, citizen participation, social capital, wellness and health promotion, and social change in individuals, families, schools, churches, workplaces, and communities are important in community psychology (Kelly, 1986; Meritt et al., 1999; Rappaport and Seidman, 2000; Dalton et al., 2001) which could also be applied in health

interventions. In fact, community psychology helps health care professionals to recognize the community level determinants of health for the prevention of behavioral and psychosocial problems (e.g. breast cancer screening problems and barriers) in the respective community.

However, most of the previous literature on community psychology focuses more on behavioral aspects of health such as alcohol and drug abuse, risky sexual behavior, teen pregnancy, violence homelessness, school dropout, and unemployment (Kelly, 1986; Meritt et al., 1999; Rappaport and Seidman, 2000; Dalton et al., 2001), whereas other issues like the role of health care professionals regarding the control of such behaviors and designing an appropriate intervention were less focused.

Therefore, there is clear indication of inadequate literature in understandings of community level determinants of health. Thus, much need to be done in investigating the processes of community networks in relation to health (Campbell and Jovchelovitch, 2000). Certainly, we argued that community psychology can be used as a tool for community involvement, lay helpers, to develop social capital and empowerment among community members by health professionals.

In line with this, we suggested that, more studies should be conducted on community and health psychology to attain in-depth perspective on how knowledge of community psychology can be applied by health professionals in tackling community health problems in order to influence community determinants of health.

Psychological Knowledge and Health Care Professionals

Knowledge of psychology is relevant to health professionals in such a way that, it enhances their ability to merge the idea or information about community and health psychology for implementing a successful health intervention. Similarly, health care professionals should lay more emphasis on knowledge related to health behavior theories that may contribute to effective community care. On another note, despite the huge resources invested in health research, most of the findings remained only documented but not actualized in to practice. Therefore, the implementation of breast cancer screening programs, particularly in developing countries should be viewed in cultural and behavioral milieu. Knowledge on culture of a given community regarding health promotion efforts and improvement of low-cost screening sites access is essential in reducing the risk of breast cancer in developing countries. In contrast, policymakers on public health in some cases view behavioral intervention as prohibitively labor intensive because it needs one-on-one counseling by highly trained and expensive staff (Leviton et al., 1993). Nevertheless, behavioral interventions can be established through less expensive means such as community-support strategies (e.g. self-help groups) provided that health professionals know how to integrate psychological aspects into behavioral interventions.

When health care professionals are working to change individual health behaviors, relevant psychological theories need to be considered such as motivational theories (which explain how individuals come to wish/ intend/decide to change behavior), action theories (which explain how individuals move from intention to actual behavior change), and stage theories (which propose an orderly progression through discrete stages toward behavior change). These theories could be applicable to health care especially theories with standard scales of measurement (Fishbein and Ajzen, 1975).

For many of the diseases, there are interventions grounded in psychological theory that may be used to prevent and manage the symptoms of the disease. To participate in the management of these disorders, psychologists have established a broad range of treatments, including empirically supported interventions ranging from weight control programs to cognitive–behavioral therapy and a host of other interventions that have been revealed to significantly improve health and well-being (Brown et al., 2002).

We believe the knowledge of psychology in health care professionals will improve their skills to implement health care policies which may subsequently contribute significantly to participation in health interventions in three stages namely; individual health behavior change, health practice and empowerment. Below, we proposed a three-stage approach that will serve as a guide to health professionals for planning an agenda for advocacy and discussion on the need of psychology knowledge in health care delivery.

Figure 1 below illustrates the proposed three-stage

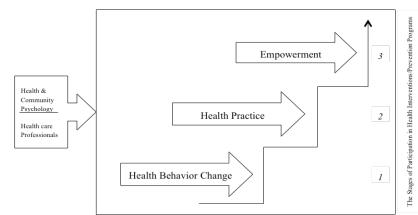


Figure 1. A Schematic Model for the Use of Psychological Knowledge in Health Professionals to Promote Participation in Health Interventions/Prevention Programs in Developing Countries

DOI:http://dx.doi.org/10.7314/APJCP.2014.15.12.5097 Psychology Knowledge in Health Professionals: Implications for Community Breast Cancer Prevention

model which indicates the stages in individual health behavior change, health practice, and empowerment in health context. Literally, health care professionals are the facilitators of participation in health interventions (e.g. breast cancer prevention programs). In the first stage, psychosocial constructs such as self-efficacy, beliefs, social influences, barriers, and attitude lead to the understanding of individual health behavior changes, and provide a sense of direction to health professionals to identify whether health intervention and/or prevention program works or not.

In the second stage, individuals and/or community members can be able to improve their participation in prevention programs/health interventions progressively due to the influence of health professionals that changed their behavior. Following the health awareness which is designed to increase individual and communities' participation in prevention programs/health interventions, the capacity of individual and communities' health practice is expected to be improved.

In the third stage, the improved health practice in the intervention or prevention programs makes individual to be empowered and promote their capacity in taking preventive measures against diseases such as breast cancer among themselves and their communities. Therefore, the role of health professionals is essential in promoting participation in health interventions/prevention programs in developing countries.

The fundamental goal of health education is community empowerment which can be achieved through the role of health care professionals and their understanding of health and community psychology. Psychological knowledge guides health professionals and health educators to handle health issues in the communities and work on building the community capacity to overcome psychosocial and behavioral problems. In all stages cultural and social needs of communities should be considered by professionals and experts. With these comments in mind, it is not easy to do all changes in the individuals and communities toward health behaviors without psychological knowledge.

For health professionals and experts to apply this model, cultural and social aspects of the community need to be taken into consideration. Besides, the sustainability of those intervention programs can be maintained through community members' participation in collaboration with health care professionals (Ahmadian et al., 2010).

Health Behavior Change (Stage 1)

In the first stage, health care professionals can offer an image of how they approached health issues when looking at individual or community behaviors. For instance, during the process of implementing guidelines for breast cancer prevention in developing courtiers, health behavior concepts related to breast cancer prevention such as self-efficacy, beliefs, social influences, barriers, and attitude could be considered as a guide to achieve a successful health behavior change among community members towards their practice of breast cancer screening. Since knowledge of psychology and socio-demographic characteristics of a community are equally important in health context, then knowing about community psychology should be considered as a procedure designed to influence various socioeconomic levels of communities. For example, a recent study showed that Short Message System (SMS) is a simple and inexpensive way to raise awareness and encourage Iranian women to seek earlier detection for breast cancer (Keshtgar and Baum, 2010). Thus, attention should be given to the value of specific community and their action regarding preventive diseases.

At the same time, many diseases such as breast cancer in developing countries are influenced by individual health behaviors related to diet, physical activities, and the amount of pressure in work place and community. In order to develop effective interventions to prevent diseases such as breast cancer, health professionals need to understand the individual health behaviors and how to address the problems related to these behaviors particularly among less privileged communities. In fact, during interventions, knowledge of psychology of health professionals enhances their skills for applying psychological theories to health practice at the community level.

Similarly, the dominant theoretical model related to health psychology provides a method for professionals to educate and guide communities in health interventions. Indeed, knowledge on community psychology can be used to predict individual health behaviors and actions on why community members do not follow medical advices and health seeking behaviors such as reasons for not practicing breast cancer screening. In other words, in the first stage, health professionals can be able to evaluate both positive and negative effects on the quality of preventive behavior (breast cancer screening) and adverse influence of family and friends on the advice of health professionals regarding breast cancer screening methods among women.

In short at this stage individuals can be motivated to seek help on specific health issues (e.g. breast cancer) and be aware of the need for health behavior change. Thus, changing community attitudes and personal beliefs about the positive or negative value on preventive behaviors and its outcomes requires the use of psychological knowledge by health professionals. It is pertinent to know that psychosocial factors are conceptualized in order to clarify challenges of disease prevention (e.g. breast cancer screening).

Health Practice (Stage 2)

In the second stage, health professionals assume that health practice is the primary outcome of individual behavior change and then by modifying individuals' health beliefs, they can alter individuals' perceptions of preventive health behaviors and certainly contribute to changes in their health practice. In other words, health professionals should use health behavior concepts to explain how to develop health practice in order to help community to empower themselves in the third stage.

According to Freudenberg et al. (1995) health educators have struggled to borrow and apply social and behavioral theories to conduct practices. In this stage, health professionals emphasize on encouraging individuals and communities to practice preventive

health behaviors (e.g. breast self-examination or doing a mammogram and ultrasound) to fight diseases such as breast cancer.

At this stage health professionals can encourage community members to participate actively in interventions or prevention programs (e.g. breast cancer screening program), i.e. to empower them. However, the feasibility and effectiveness of behavioral and psychological interventions should be evaluated by health professionals. For example, strategies for increasing the participation rate of community members involved in community-based breast cancer screening programs and activities should be reviewed and assessed. This means, health experts who have knowledge on community structure and community psychology are able to apply strategies such as methods of invitation, a brief counseling, and print materials for achieving a high participation rate.

According to Campbell and Murray (2004), emphasis on the dual role of individual and social change in tackling health inequalities goes hand in hand with the belief that a key step in dealing with many health issues is the involvement of those affected. In real fact, health care professionals' knowledge can assist them to realize what interventions are worthwhile to improve the function of certain preventive health behaviors for the affected communities involved in health programs. The involvement of community members in public health planning, implementation and even evaluation offers an alternative approach to get people involved in health-related issues and sort out solutions. Nevertheless, community participation in planning, implementation, and evaluation of health initiatives, in many cases, is under the authority of governmental organizations in most developing countries (Neuhauser et al., 1998; Ahmadian and Samah A, 2012b).

As far as community psychology is concerned to breast cancer prevention, it draws attention to the need to take into account of women communities' members values especially in developing countries. In addition, strategies such as home visit, sending an invitation letter, and educational resources to breast cancer screening programs can also be applied in developing countries.

Empowerment (Stage 3)

The third stage is empowerment which denotes a shift in knowledge, skills, and attitude for both communities and professionals. Health care professionals should be seen as experts on health issues such as breast cancer and can help communities to overcome behavioral barriers through education. Along with the individual health behavior changes and their health practices, the third stage or empowerment offers several advantages to the people as health educators. Methods such as advocacy and community organizing can be used in this stage by health professionals to develop the clients' capabilities in managing health issue.

The health status of women is influenced by social, cultural and economic variables. Keeping this in view, empowering women in developing countries through a better health-care delivery is necessary. In nursing, empowerment acts as a social process of recognizing, promoting and enhancing the client's abilities to meet his/her own needs. It involves mobilizing the necessary resources to control their own lives (Gibson, 1991). The nurses enable the clients to realize the ability they possess to exercise inner power. Thus, empowerment is a goal of nursing care (Butterfield, 1990). Caring and empowerment are closely linked in the process of nursing (Clifford, 1992). A broader definition describes empowerment as a process by which people, organizations and communities gain mastery over their lives (Rappaport, 1984).

We believe that the most essential attribute of empowerment with regard to breast cancer prevention is to be aware about the importance of breast cancer as a common malignant disease. This awareness influences women through practicing preventive behaviors against breast cancer which subsequently leads to their empowerment. The role of health professionals is a continued process to this reality in order to boost women's awareness through appropriate cultural interventions to enhance their participation in prevention programs.

With regard to health, empowerment is the process of expanding the capability of individuals to make choices regarding their own health conditions. When health professionals are working towards changing individuals' behavior and encouraging them to adopt a preventive health behavior (i.e. stage 1 and stage 2), knowledge of health psychology can be used to understand peoples' behaviors at the individual level.

In this stage "empowerment stage", community psychology in terms of cultural values of individuals, families, schools, churches, workplaces, and communities patients need to be understood. For instance, an instrument to measure empowerment regarding breast cancer issue should be developed based on community settings in terms of their cultural values, age group, and characteristics of their population distribution. Specifically, religion is a very sensitive issue in many developing countries and health care professionals should also give more preference to its spiritual implication on community members.

In line with that idea, experienced health care professionals (e.g. nurses, midwives, general physicians, and gynecologists) on breast cancer screening should have the potential to promote breast cancer prevention and control to enable women to realize their capability in decision making over their health. As argued by Kieffer (1983) that, empowerment is cultivated by the effects of individual demand and a collaborative effort based on the individual needs. Therefore, due to the threat of breast cancer disease to developing countries and its vulnerability among younger women, there should be an increasing numbers of health interventions by health professionals and health-related NGOs to control breast cancer to avoid late staged diagnosis. In this situation, the empowered community members can serve as active agents to encourage other women to participation in health interventions for speaking out on their health conditions which helps to detect breast cancer at an early stage of development. Speaking out about breast cancer, women can cope with the challenges of other breast diseases in their normal life before they get involved in illness.

It is obvious that in developing countries, participation in health interventions or prevention programs should be appeared feasible. There is not always a large scale cancer prevention program in developing countries or Asian countries. Therefore, we recommend that women participation in decision making processes regarding their own preventive behaviors (e.g. breast cancer screening) should be facilitated by health professionals through improving community knowledge, changing behaviors, and barriers reduction. For example, health professionals must remind women everywhere about breast health. Additionally, we should be more realistic about community psychology in health promotion due to people competency in small-scale participation. No doubt, empowerment is more than community participation in health interventions and it promotes better self-awareness and self-care on health issues such as breast cancer.

Limitation

Unlike science-based models, the theoretical foundations of Human, Social, Cultural, and Behavioral (HSCB) or other social science models are not quickly verified through observation of real-world events or empirical testing (Hahn, 2013). We realize that the proposed model would have its challenges and is just a simple module or framework to allow a direction for a community-based model development in future. Nevertheless, this paper is considered to acquire the ability to translate from theory to practice in public health and more knowledge sharing in relation to breast cancer prevention, the importance of health and community psychology, the role of health professionals, and associated issues for community development practices among women in Asian developing countries.

Conclusion

Developing countries are witnessing a rapid emergence of aggressive forms of breast cancer, particularly among young women. Due to breast cancer threat and global health inequalities, health professionals need to be aware of community and health psychology in order to facilitate women participation in cancer prevention programs. We proposed a three-stage approach for increasing public/ women participation in health interventions or cancer prevention programs, particularly in developing countries.

The proposed model focuses on three main stages which underpin much for creating awareness for health professionals on health and community psychology. This knowledge helps them in drawing consideration to the importance of individual health behavior changes (e.g. help-seeking for breast cancer) and health practices (e.g. secondary prevention of cancer such as mammography to detect a non-palpable breast cancer) in a community. Following those stages, health professionals are able to help to empower the community in taking action to promote active participation/engagement and educate health consumers at the community level.

We suggest further studies using anthropologic approach shaped for implementation of specific

interventions in multi-ethnic Asian settings (Ahmadian and Samah, 2013). In addition, further research is needed to investigate the challenges facing the health professionals with knowledge of health and community psychology on public health issues such as breast cancer.

The application of health and community psychology principles and practices by health professionals during health intervention programs using the proposed threestage approach could bridge the gaps between theory, practice, and policy issues on public health in community development. By implication, the three-stage model is a contribution to the body of knowledge due to the limited literature in intervention studies. The model also signifies women empowerment in self-help groups and indicates health care professionals as catalysts for community participation in public health issues.

References

- Abdullah ASM, Leung KF, Leung CKL, et al (2001). Factors associated with the use of breast and cervical cancer screening services among Chinese women in Hong Kong. *Pub Health*, **115**, 212-7.
- Ahmadian M, Samah AA, Emby Z, Redzuan M (2010). Instrument development for understanding factors influencing mammography compliance among Iranian women in metropolitan Tehran, Iran. Asian Soc Sci, **6**, 88-96.
- Ahmadian M, Redzuan M, Emby Z, Samah AA (2010). Women's community participation levels in community based health programs regarding breast cancer prevention in Metropolitan Tehran, Iran. *Asian Soc Sci*, **6**, 12-21.
- Ahmadian M (2011). Factors Influencing Women's Participation in Breast Cancer Prevention Program in Tehran, Iran. Doctoral research, Universiti Putra Malaysia.
- Ahmadian M, Samah AA, Emby Z, Redzuan M (2011). Barriers to Mammography among women attending gynecologic outpatient clinics in Tehran, Iran. Sci Res Essays, 6, 5803-11.
- Ahmadian M, Samah AA, Redzuan M, Emby Z (2012a). Predictors of mammography screening among Iranian women attending outpatient clinics in Tehran, Iran. Asian Pac J Cancer Prev, 13, 969-74.
- Ahmadian M, Samah AA, Redzuan M, Emby Z (2012b). Participation in breast cancer prevention: assessing women's knowledge and their participation in mammography in Tehran, Iran. *Sci Res Essays*, **7**, 915-22.
- Ahmadian M, Samah AA, Redzuan M, Emby Z (2012c). The influence of psycho-social factors on participation levels in community-based breast cancer prevention programs in Tehran, Iran. *Global J Health Sci*, 4, 42-56.
- Ahmadian M, Samah AA (2012a). A literature review of factors influencing breast cancer screening in Asian countries. *Life Sci J*, **9**, 689-98.
- Ahmadian M, Samah AA (2012b). A model for community participation in breast cancer prevention in Iran. *Asian Pac J Cancer Prev*, **13**, 2419-23.
- Ahmadian M, Samah AA (2013). Application of health behavior theories to breast cancer screening among Asian women. *Asian Pac J Cancer Prev*, **14**, 4005-13.
- Anderson BO, Braun S, Carlson RW, et al (2003) .Overview of breast health care guidelines for countries with limited resources. *Breast J*, **9**, 42-50.
- Bandura A, Adams NE (1977). Analysis of self-efficacy theory of behavioral change. *Cog Therapy Res*, **1**, 287-310.
- Belloc NB, Breslow L (1972). Relationship of physical health status and health practices. *Prev Med*, **1**, 409-21.

- Bener A, Honein G, Carter AO, et al (2002). The determinants of breast cancer screening behavior: a focus group study of women in the United Arab Emirates. *Oncol Nurs Forum*, 29, 91-8.
- Brailey LJ (1986). Effects of health teaching in the workplace on women's knowledge, beliefs, and practices regarding breast self-examination. *Res Nurs Health*, **9**, 223-31.
- Brown RT, Freeman WS, Brown RA, et al (2002). The role of psychology in health care delivery. *Professional Psychology: Research and Practice*, **33**, 536-45.
- Butterfield PG (1990). Thinking upstream: Nurturing a conceptual understanding of the societal context of health behavior. *Adv Nurs Sci*, **12**, 1-8.
- Campbell C (2003). Letting them die: Why HIV/AIDS prevention programmes fail. Bloomington, IN: Indiana University Press/Oxford: James Currey
- Campbell C, Jovchelovitch S (2000). Health, community and development: towards a social psychology of participation. *J Commun Applied Soc Psych*, **10**, 255-70.
- Campbell C, Murray M (2004). Community health psychology: Promoting analysis and action for social change. *J Health Psychol*, **9**, 187-95.
- Champion V (1987). The relationship of breast self-examination to health belief model variables. *Res Nurs Health*, **10**, 375-82.
- Champion VL (1992). Compliance with guidelines for mammography screening. *Can Detect Prev*, **16**, 253-8.
- Chua MST, Mok TS, Kwan WH, et al (2005). Knowledge, perceptions, and attitudes of Hong Kong Chinese women on screening mammography and early breast cancer management. *Breast J*, **11**, 52-6.
- Clifford PG (1992). The myth of empowerment. *Nurs Admin Quarterly*, **16**, 1-5.
- Coughlin SS, Ekwueme DU (2009) Breast cancer as a global health concern. *Can Epidemiology*, **33**, 315-8.
- Crane LA, Kaplan CP, Bastani R (1996). Determinants of adherence among health department patients referred for a mammogram. *Women and Health*, 24, 43-6.
- Dalton JH, Elias MJ, Wandesman A (2001). Community Psychology: Linking Individuals and Communities. Stanford, CT: Wadsworth/Thompson Learning, Inc.
- Danigelis NL, Worden JK, Mickey RM (1996). The importance of age as a context for understanding African-American women's mammography screening behavior. *Am J Prev Med*, **12**, 358-66.
- Edgar L, Shamian J, Patterson D (1984). Factors affecting the nurse as a teacher and practice of breast self-examination. *Int J Nurs Studies*, **21**, 255-65.
- Estrada AL, Trevino FM, Ray LA (1990). Health care utilization barriers among Mexican Americans: evidence from HHANES 1982-84. *Am J Pub Health*, **80**, 27-31.
- Finney Rutten LJ, Iannotti RJ (2003). Health beliefs, salience of breast cancer family history, and involvement with breast cancer issues: adherence to annual mammography screening recommendations. *Can Detect Prev*, **27**, 353-59.
- Fishbein M, Ajzen I (1975). Belief, attitude, intention and behavior: an introduction to theory and research. London: Addison-Wesley.
- Freudenberg N, Eng E, Flay B, et al (1995). Strengthening individual and community capacity to prevent disease and promote health: In search of relevant theories and principles. *Health Edu Quarterly*, **22**, 290-306.
- Garbers S, Jessop DJ, Foti H, et al (2003). Barriers to breast cancer screening for low-income Mexican and Dominican women in New York City. *J Urban Health*, **80**, 81-91.
- Gibson, CH (1991). A concept analysis of empowerment. J Adv Nurs, 16, 354-61.

- Gotay C, Wilson ME (1998). Social support and breast cancer screening in African American, hispanic, and native American women. *Can Practice*, **6**, 31-7.
- Hahn HA (2013). The conundrum of verification and validation of social science-based models. *Procedia Comput Sci*, **16**, 878-87.
- Han Y, Williams RD, Harrison RA (2000). Breast cancer screening knowledge, attitudes, and practices among Korean American women. Oncol Nurs Forum, 27, 1585-9.
- Hiatt RA (1996). Pathways to early cancer detection in the multiethnic population of San Francisco Bay Area. *Health Edu Quarterly*, 23, 10-27.
- Hisham AN, Yip CH (2003). Spectrum of breast cancer in Malaysian women: overview. *World J Surg*, **27**, 921-23.
- Im EO, Park YS, Lee EO, et al (2004). Korean women's attitudes toward breast cancer screening tests. *Int J Nurs Stud*, 41, 583-9.
- Jarvandi S, Montazeri A, Harirchi I, et al (2002). Beliefs and behaviours of Iranian teachers toward early detection of breast cancer and breast self-examination. *Pub Health*, **116**, 245-9.
- Juon HS, Kim M, Shankar S, et al (2004). Predictors of adherence to screening mammography among Korean American women. *Prev Med*, **39**, 474-81.
- Katapodi MC, Facione NC, Miaskowski, et al (2002). The influence of social support on breast cancer screening in a multicultural community sample. *Oncol Nurs Forum*, 29, 845-52.
- Kelly JG (1986). An ecological paradigm: defining mental health consultation as a preventive service. *Prev Human Serv*, **4**, 1-36.
- Keshtgar M, Baum M (2010). A new approach to treating breast cancer combining tumor removal and intraoperative radiotherapy: is it viable? *Women's Health*, 6, 9-12.
- Kieffer CH (1983). Citizen empowerment: A developmental perspective. Prev Human Serv, 3, 9-36.
- Kreuter M (1997) National level assessment of community health promotion using indicators of social capital. Unpublished WHO/EURO working group report. CDC, Atlanta.
- Lee CY, Kim HS, Ham O (2000). Knowledge, practice, and risk of breast cancer among rural women in Korea. *Nurs Health Sci*, **2**, 225-30.
- Leviton LC, Chen HT, Marsh GM, et al (1993). Evaluation issues in the drake chemical workers notification and health registry study. *Am J Ind Med*, **23**, 197-204.
- McCance KL, Mooney KH, Field R, et al (1996). Influence of others in motivating women to obtain breast cancer screening. *Can Practice*, **4**, 141.
- McPhee SJ (1997). Barriers to breast and cervical cancer screening among Vietnamese-American women. *Am J Prev Med*, **13**, 205-13.
- Meleis A Hatter-Pollard M (1995). Arab Middle Eastern American women. Stereotyped, invisible, but powerful. In D. L. Adams (Ed.), Health Issues for Women of Color: A cultural diversity perspective (pp. 133-163). Sage Publications.
- Meritt DM, Greene GJ, Jopp DA, et al (1999). A History of Division 27 (Society for Community Research and Action). In Unification through Division: Histories of the Divisions of the American Psychological Association, Volume III, ed. D. A. Dewsbury. Washington, DC: American Psychological Association.
- Miller AM, Champion VL (1997). Attitudes about breast cancer and mammography: Racial, income, and educational differences. *Women and Health*, 26, 41-63.
- Montazeri A, Haji-Mahmoodi M, Jarvandi S (2003). Breast self-examination: do religious beliefs matter? A descriptive

study. J Pub Health, 25, 154-5.

- Murray M, Campbell C (2003). Living in a material world: Reflecting on some assumptions of health psychology. J Health Psychol, 8, 231-6.
- Nelson G, Prilleltensky I (2004).Community psychology: In pursuit of liberation and well-being. London: Palgrave.
- Neuhauser L, Schwab M, Syme S, et al (1998). Community participation in health promotion: evaluation of the California wellness guide. *Health Pro Int*, **13**, 211.
- Navon L (1999). Voices from the world. Can Nurs, 22, 39-45.
- Nissan A, Spira RM, Hamburger T, et al (2004). Clinical profile of breast cancer in Arab and Jewish women in the Jerusalem area. *Am J Surg*, **188**, 62-7.
- O'Malley AS, Earp JA, Harris RP (1997). Race and mammography use in two North Carolina counties. *Am J Pub Health*, **87**, 782-6.
- Petro-Nustus W, Mikhail BI (2002). Factors associated with breast self-examination among Jordanian women. *Pub Health Nurs*, **19**, 263-71.
- Poss JE (2001). Developing a new model for cross-cultural research: synthesizing the health belief model and the theory of reasoned action. *Adv Nurs Sci*, **23**, 1-15.
- Rashidi A, Rajaram SS (2000). Middle Eastern Asian Islamic women and breast self-examination: needs assessment. *Can Nurs*, **23**, 64-70.
- Rakowski W, Dube CE, Marcus BH (1992). Assessing elements of women's decisions about mammography. *Health Psych J*, **11**, 111.
- Rappaport J (1984). Studies in empowerment: Introduction to the issue. *Commun Mental Health Rev*, **3**, 1-7.
- Rappaport J, Seidman E (2000). The Handbook of Community Psychology. New York: Kluwer Academic/Plenum Publishers.
- Saint-Germain MA, Longman AJ (1993). Breast cancer screening among older hispanic women: knowledge, attitudes, and practices. *Health Edu Behav*, 20, 539-53.
- Samah AA, Ahmadian M (2012). Socio-demographic correlates of participation in mammography: a survey among women aged between 35-69 in Tehran, Iran. Asian Pac J Cancer Prev, 13, 2717-20.
- Slenker SE, Grant MC (1989). Attitudes, beliefs, and knowledge about mammography among women forty years of age. *J Can Edu*, **4**, 61-5.
- Smith RA, Caleffi M, Albert US, et al (2006). Breast cancer in limited-resource countries: early detection and access to care. *Breast J*, **12**, 16-26.
- Straughan PT, Seow A (2000). Attitudes as barriers in breast screening: a prospective study among Singapore women. *Soc Sci Med*, **51**, 1695-703.
- Taylor J, Wilkinson D, Cheers B (2008). Working with communities in health and human services. Melbourne: Oxford University Press.
- Wallace LS (2002). Osteoporosis prevention in college women: Application of the expanded health belief model. Am J Health Behav, 26, 163-72.
- World Health Organization. (1997). Obesity: preventing and managing the global epidemic. Technical Report Series, No 894. Geneva, Switzerland.
- World Health Organization. (1997). Jakarta Declaration on Leading Health Promotion into the 21st Century. WHO: Geneva.
- World Health Organization. (1986). Ottawa Charter for Health Promotion. WHO: Geneva.
- World Health Organization. (2005). Bangkok Declaration. WHO: Geneva.
- WHO (2005). Preventing chronic diseases: a vital investment. Geneva, Switzerland: World Health Organization,

- Wu TY, West B, ChenYW, et al (2006). Health beliefs and practices related to breast cancer screening in Filipino, Chinese and Asian-Indian women. *Can Detect Prev*, **30**, 58-66.
- Yu MY, Hong OS, Seetoo AD (2003). Uncovering factors contributing to underutilization of breast cancer screening by Chinese and Korean women living in the United States. *Ethnic Dis*, **13**, 213-9.

100.0

- 75.0
 - 50.0
 - 25.0