

A Contribution of PAR for the Prevention and Control of Hypertension and Diabetes among the Elderly in Thailand

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Abstract

Background: A rise in the number of elderly people in society increases the need for disease prevention and health promotion services as the growing figure entails more patients suffering from chronic illnesses, such as hypertension and diabetes. In order to prevent and control these non-communicable diseases, Participation Action Research (PAR) can be a powerful mechanism for engaging the elderly in PAR, and has the potential to provide a way to enhance the health of the elderly, consequently; it is necessary to design an appropriate health promotion model involving community participation.

Objective: This participation action research aims to develop a health promotion model integrating community participation for the prevention and control of hypertension and diabetes in the elderly and to implement a local intervention.

Methods: Mixed methodologies of mainly a qualitative approach and a supported quantitative approach with a questionnaire were employed. This was community-based participatory action research in which the researchers and community partners were the main participants. The PAR model was developed interactively in collaboration with the setting of local administration, the public sector, and the private sector. The process involved assessing the situation, taking action to promote community participation based on the analysis, implementing the solution, and testing the model and evaluating the model applying the After Action Review (AAR) approach.

Results: A health promotion model was developed and then piloted by the community team. The model is designed to improve the health behavior of the elderly; preventing and controlling hypertension and diabetes; providing continuous health education, especially regarding the importance of nutrition; physical activity; stress management; and facilitating the access of the vulnerable elderly to health services. The results showed that all the sectors, namely, families, schools, and temples, were involved in every stage of the research. The research results indicate that the model can build community health-promotion capacity, partnership development, community health plans, and community innovation and build a supportive environment.

Conclusion: The paper illustrates that PAR has the potential to provide a way to make the significant role of community participation in a project for the prevention and control of hypertension and diabetes and for the promotion of healthy aging in a rural setting. Moreover, PAR can enhance program design and implementation based on the sharing of best practices and the active engagement of community members. In this way, the elderly can perceive benefits of group participation in enhancing their self-care ability, their sense of empowerment, and their ability to learn to prevent, control and sustain changes in their health behavior.

Keywords: elderly, participatory action research, health promotion, non-communicable disease

1. Introduction

Aging is considered as a natural phenomenon in the health care discipline of the world and Thailand. It is anticipated that the aging population in Thailand will be growing exponentially and 27% of the population will be aged over 60 in 2030 (Security, 2014). With aging, the incidence of Non-Communicable Disease (NCDs) increases, diminishing the functional ability of older people. In Thailand, the burden of NCDs, particularly hypertension and strokes associated with diabetes and cardiovascular diseases, is increasing in the aging population (Bureau of Non Communicable Disease, 2014). This rise in the prevalence of hypertension and diabetes is attributable to

increasing urbanization and other risk factors. According to (Stuckler, 2008) the epidemic of NCDs and their impact on global burdens results from changes in social and living conditions accompanying globalization and urbanization, specifically, changes in dietary consumption, a decrease in physical activity, and environmental factors. In response to this situation, the World Health Organization (WHO, 2013) has recently prioritized NCDs in the international health agenda (Assembly., 2011) focusing on four 'lifestyle' risk factors, namely, the lack of physical activity, high salt, high-fat diets and smoking, and harmful alcohol use (WHO, 2013). Although a rapid growth in the aging population is recognized as one of the reasons why NCDs are on the rise, current national guidelines for the prevention and control of HT and DM emphasizes health education and the availability of lifestyle intervention through primary care services, of which the position in most community clinics is inadequate (Holmes, 2011). There have been few studies on the prevention and management of NCDs, especially that integrating community participation to promote healthy aging. Some of the studies reported that older people play important social-cultural and economic roles in their families and communities. However, their contribution is often limited by chronic illness and disability (World Health Organization, 2015). Another study in South Africa also showed the importance of involving local people in community-based activities, initiated to promote health and identified that the primary role is to develop appropriate of skills in the local community (Bradley, 2007). Broadly defined, PAR is a co-learning process in which the community is intrinsic to the development of knowledge and requires that those directly affected by the issue in question be involved in generating patient participation in PAR (Ingram, 2015) This research, uses the PAR framework, empowerment and protection motivation to the community, to develop an action agenda. Therefore, it is necessary to identify the research questions of this participatory action research (PAR) are to foster changes for a healthy community (Springett J, 1995) and to develop a health promotion model for older adults in an rural community that can be effective in healthy aging, and whether any beneficial effect can be sustained in the long term (Lin, 2014). This paper will also illustrate a successful partnership in a PAR project, whose results show it being a quality organization and building the elderly empowerment to create sustainable changes in health behavior (Lukler, 2000; McQueen, 2013).

2. Method

2.1 Study Setting

This study is done in the Khlong Khoi Subdistrict of Photharam district, Ratchaburi province, Thailand. Khlong Khoi Subdistrict has an impact on NCDs, this rise in the prevalence of hypertension and diabetes is attributable to increasing urbanization and other risk factors, and their impact on global burden result from changes in social and living conditions accompanying globalization and urbanization specifically changes in dietary consumption, a decrease in physical activity. Khlong Khoi has an estimated population of 4800, 16 percent of which are aging. The prevalence of hypertension and diabetes are 35 percent among the elderly population respectively. However, primary health care for the elderly is inadequate to provide holistic, comprehensive and culturally (Airhihenbuwa, Ford, & Iwelunmor, 2014). This community-based study involved a collaboration partnerships i.e. local administrator, government officers and civilian sectors (families, school, and temple). The researcher used PAR process working with all parties.

2.2 Study Designing

This study employed the participatory action research approach postulated by Koch and Kralik (T. Koch, & Kralik, D., 2006). It was carried out in five stages. The first stage involved preparation in the forms of selecting a community, establishing a relationship with the community, and forming a network for exploration. The second stage involved exploring situations pertaining to non-communicable diseases (NCDs) and the health care needs of the elderly in the community. The third stage involved planning a solution and developing a health promotion model integrating the participation of leaders of the elderly and local administrators. The fourth stage involved implementing the solution and testing the model. Also addressed at this stage were the operational plans. The fifth stage involved evaluating the model applying the reflection of After Action Review. In this process, the researchers took the responsibility of coordinating with the parties involved and building community involvement, to ensure a sense of partnership among the community members. Both qualitative and quantitative data collection methods were applied using a structured questionnaire to generate preliminary information about the participants; the outlines included individual characteristics, knowledge of hypertension diabetes and self-care behavior. A qualitative approach used in-depth, semi-structured interviews to engage the participants and their caregivers in communication regarding their individual lifestyle, personal health concerns relating to hypertension and diabetes, and attitudes toward and needs for health care provision. In addition, six focus groups were held with selected stakeholders. The research process following the data collection included developing a health promotion model integrating the participation of leaders of the elderly and local administrators, and implementing and evaluating the

model (Davies, 2010; Hsieh, 2005; McTaggart, 1990).

2.3 Sample/Participant

Participants were sampled purposively from the community through home visits. The selection criteria for participation consisted of residents in three villages with a high prevalence of such diseases. A total of 45 elderly people suffering from hypertension and diabetes were interviewed. Six focus group sessions with a total of 54 people were also run, each participated in by residents (community leaders, local administrators, elders with chronic illnesses, caregivers, the president of the elderly club, and health personnel/community health workers) of Khlong Khoi sub district, Photharam district, Ratchaburi province, Thailand.

2.4 Data Collection

The primary method of data collection in this study was using structured questionnaires and semi-structured open-ended interviews through home visits using face-to-face interviews. A purposive sampling was initiated and continued up to data saturation. The second method used focus group discussions. Six focus group sessions were designed as a group interaction in which questions were presented as themes that engaged participants in an interactive discussion and produced insights. The data collection began in May 2013 and was completed in July 2014.

2.5 Data Analysis

The data collected from the administration of the questionnaire were analyzed using descriptive statistics (frequency, percentage and mean). As for qualitative data, all the interviews were audio-taped and transcribed verbatim with participants' permission and then coded by the researchers. Coding is an essential step for organizing, processing, and analyzing qualitative information leading to a meaningful interpretation. In this study, the development of codes and themes was inductively carried out from the interviews by identifying and constantly comparing emergent themes in the transcripts until no new themes or ideas emerged. Content analysis was used in the current study. The qualitative content analysis was continuous and concurrent with data collection methods, using content, words, sentences, or paragraphs pertinent to the prevention and control of NCDs. After it was selected from the participant's statements it was described as meaningful units. Small accumulating errors of triangulation were in relation to other sources of data collections, such as the caregiver's, statements and focus group conversations. Conformability was also coded and classified. For dependability, the researcher accurately recorded and reported the research process to allow for follow-up research by others. For the transferability of the findings, quotes from the participants were reported and the demographic characteristics of participants and studied were explained in detail, so future readers of this study could decide how to use the results. (T. Koch, Jenkin, P., &Kralik, D., 2004); (Hsieh, 2005; Soltanian, 2016). To increase the reliability and validity of data, different methods were used, such as allocating sufficient time, holding in-depth interviews with participants, explaining the objectives of the study and returning codes to participants to verify their accuracy.

2.4 Ethical Considerations

The Ethics Committee of Chulalongkorn University approved the study proposal and corroborated its ethical consideration on 28 May 2013. Other principles of research ethics, such as informed consent, anonymity, confidentiality, and freedom of the participants to leave the study, were also upheld.

3. Results

3.1 individual characteristics

The results of conducting participatory action research for the development of a health promotion model integrating community qualitative data collection methods were applied using a questionnaire to generate preliminary information about the participants. The outline included individual characteristics of participants, knowledge of hypertension and diabetes and self-care behaviors. Forty-five participants entered to the study. Their individual characteristics are presented in table 1. The knowledge of hypertension and diabetes is depicted in table 2. Furthermore, Table 3 illustrates the level of self-care practices behaviors in our study participants.

Table 1. Individual Characteristics of Participants

Gender		Age		Status		Disease	
Female	91.0%	60-70	26.7%	Marriage	51.0%	HT	55.5%
Male	9.0%	71-80	62.2%	Divorced	33.0%	DM	9.0%
		81-90	11.1%	Single	6.0%	HT&DM	35.5%

Table 2. Knowledge of Hypertension and Diabetes

Knowledge level	Hypertension	Diabetes
Good	73.8%	0%
Moderate	19.0%	0 %
Low	7.2%	100%

Table 3. Self- Care Behaviors

Self- Care Behaviors	Feeding Behavior	Exercise Behavior	Relaxation Behavior
Good	0	64.3%	71.4%
Moderate	52.4%	26.2%	28.6%
Low	47.6%	9.5%	0

3.2 The Findings from the Situational Assessment

The Khlong Khoi sub-district of Photharam District is a semi-urbanized community in which its population was previously involved in agriculture and livestock raising. Yet, at present most people are actively engaged in employment in commerce and work at an industrial factory. As a result, the community elderly in families are responsible for housekeeping and caring for children while the young go to their daily work. The organizational structure in the community consists mainly of households, temples, schools, sub-district health promotion centers and the local administration. The temples are traditionally moral and religious sanctuaries with non-communicable disease situations. However, the general situation of the disease in the province, district, and sub-district has been on the steady 5-fold rise (Bureau of Non Communicable Disease, 2014). 33% of the elderly in Khlong Khoi Sub-district have suffered from hypertension and diabetes. In each village, the elderly reportedly have been suffering from hypertension and diabetes mainly due to dietary consumption behavior, physical activity, and stress management. Even though Khlong Khoi Health Promotion Center provides health services in complying with its NCDs policy in effort to control and prevent, it has found that a lack of public awareness about health improvement behavior and a lack of regular medical check-up still exist, while an increase in chronic disease is on such a steady rise that there is inadequate space in primary care services to respond to them. These findings are summarized in Table 4.

Table 4. Summary of key findings of community assessment

Category	Findings
Individual lifestyle factors	Lack of knowledge HT/DM and risk factors; such as diet, obesity; lack of physical activity; eating patterns include very haphazard high use of oil in cooking and high salt, sugar
Social and community influences	Cultural perceptions influences type and amount of food eaten; cooking and eating practices
Living and working conditions	Limited choice and availability of food locally
General socioeconomic, cultural, and environmental conditions	Street vendors sell very salty foods, little money available for purchasing food, lack of opportunity and suitable venues for exercise and participation in recreation activity; lack of social participation
Social capital	Community networking; community fund strong family; traditional temple; health promotion school,

3.3 The Problem Concerning for Chronic Diseases by PAR

Forty-five participants (elders with NCDs), as well as their caregivers, entered the study. We examined in-depth interviews about their daily lifestyles, knowledge attitudes and practices concerning HT/DM, and health care needs of the elderly. Basic concept and codes were extracted after analyzing each interview. After browsing, summarizing and comparing, these codes were classified according to their relevance and similarity. The codes were placed under subcategories of the main theme of their lifestyle, their personal health concerns and the need for health care provision.

Examples of category development from the data are displayed by these selected quotes from respondents:

- *Nowadays, the elderly are living on the sofa, spending their time watching TV, with less physical activity that generates a negative impact on their physical strength and dynamics. This change in lifestyle can, undoubtedly, affect the elderly's physical health.*
- *Due to inappropriate meal consumption behavior i.e. salty, fatty and tasty, is due to a change in living condition patterns to cope with a trend in globalization i.e. dietary consumption from packed food, ready- to – eat meals available from the market that contribute to a poor health.*
- *For today's lifestyle, there is a lack of household gardens with fresh and non-toxic vegetables; most of the food resources are available from markets that offer common plastic packed food.*
- *The elderly live alone in a family while the young are away to work so they spend their time watching TV, listening to Dharma and issues of interest on the radio and then eating; associating with the only nursemaid. This family environment can create emotional stress and mental suffering, leading to illness.*
- *Regarding the environment, most of the rural population lives in concrete wall buildings; this provides limited space for physical activity; open areas with typical fresh nature have gone; the elderly are therefore living like a bird in a small nest.*

Primary code: Lack of physical environment suitable for an elderly. Due to inappropriate meal consumption behavior i.e. salty, fatty and tasty, living alone creates emotional stress.

Subcategory: Insufficient physical activity; inability of stress management; lack of healthy eating; lack of health promotion environment,

Main category: Lack of knowledge of physical activity; individual lifestyle; eating pattern, stress managements and built environment to promote healthy aging.

3.4 Reflection of Participants in Focus Groups

Sixth focus groups with a total of 54 people had been done. The process of the focus group was thus engaged participants in an interaction reflects. We set the tone of the discussing by collaboratively forming the focus group questions. That elicited conversation between participant about the situation of NCDs and how to prevent and control the need of the community in promoting healthy aging. Typically, in conducting qualitative analysis, the data is coded and categorized into themes and patterns. In the following section, we provide examples of these interactions. It should be noted that the main categories, subcategories, and primary codes extracted from the data are summarized:

- *“There is a conducive environment and a tendency for hypertension and diabetes to have a steady rise with the complication of NCDs since most people are not encouraged to have awareness of their health behaviors.”*
 - *“Hypertensio*
 - *n and diabetes originate primarily not from disease but from human living conditions i.e. a change in dietary consumption and other relevant lifestyles.”*
 - *“Health behavior changes in dietary consumption high in fat salt, and sugar.”*
 - *“A decrease in being physical active and living alone creates emotional stress.”*
 - *“The elderly who suffer from hypertension and diabetes in the community are checked up, hospitalized and rehabilitated by the public sector and civilian sector.”*
 - *“The community would have integrated medical care for the elderly, using the temple as a spiritual center; allowing them to do common activities, such as creating an elderly club to share their ideas and interacting in order to promote individual health.”*
-
- *“The community should launch a health promotion campaign among every target group of people to be aware of the benefits of healthy behavior in maintaining being mentally and physically fit.”*
 - *“People should be encouraged to avoid eating ready- prepared food since its quality cannot be controlled.”*
 - *“The community should encourage people to experience having good food, good exercise, and good stress management.”*
 - *“The study of local wisdom to utilize herbal medicines should be promoted as it is a community-based learning process for alternative health care.”*
 - *“A person with good health should be cited as a good health model aimed to promote healthy aging.”*
 - *“The elderly should be encouraged to engage in voluntary welfare work so that they can be proud to play a part in helping society.”*
 - *The community should exert good management and provide transportation for those who fail to have equal access to better health care service facilities.*

Subcategory: Some respondents reported that there had been a better understanding on NCDs knowledge on NCD's root cause. There had been community health care for aging from all sectors including government officers, and civilian sectors based on social capital and social support. Some also needed that NCDs advocacy and concern is to be strengthened by community participation.

Main category: Lack of NCDs Policy Advocacy. Lack of protection motivation for personal health concerns. Lack of community organization and building the elderly empowerment to sustainable changes in health behavior.

3.5 Community-Based Intervention for Health Promotion Model

In contexts such as these, PAR had been used to provide a way to enhance program designs and implementations based on the sharing of best practices and active engagement of community members with the following activities. Firstly, to organize a civic forum to return data and information on NCDs and allow for community engagement in preparing the project plan, as well as in developing a health promotion model to control and prevent NCDs. Secondly, to implement the project plan via the participatory approach jointly driven by villages, temples, schools, local administration and sub-district health promotion center. This is integrated community-based action. The overview of PAR activities and output are displayed in Table 5.

Table 5. Overview of PAR activities and output

Construct	Activity	Content	Output
Critical mass Health conscious raising	Community forum	Promoting a healthy lifestyle; NCDs situation and risk factors; High-risk subjects and association with the disease	Community health plan Health public policy
Advocacy process	Community project	Health behavior modification plan; Communication plan to disseminate knowledge on NCDs; The elderly transportation plan	Community innovation
Driven mechanism	Collaboration of all partners	Religious leaders; school; families elderly club; local administrators; Primary care providers	Strategic partners
Build environment	Physical environment Social environment	Community sport ground recreation; Non-toxic vegetables learning center; Establish temple as a knowledge center	Supportive environment

With regards to the PAR activities, all five stages had experienced participation from all sectors including the public sector and civilian sector. The community project exists in order to enhance families' strength. Also, it had a monitoring system for elderly behavior, prevention and control related activity, and continues promoting healthy aging. As a result of the AAR approach, the responsibility of coordinating with the parties involved and building community involvement so as to ensure a sense of partnership among the community members.

3.6 The development of health promotion model

This model is designed to be used in Khlong Khoi sub-district via an integrated participatory action to be piloted by villagers, temples, schools, local administration and the sub-district health promotion center based on the 4 key components: input, process, output, and outcome. The significant input in developing the model is to reinforce the potential of human and social capital in the community organizational structure, so that it would become the driving force in solving NCDs to be based on PAR, that in return will produce the output; the integrated implementation project plan for an efficient promotion of health care to prevent and control NCDs successfully. Nevertheless, it can generate a cultural innovative communication aimed to disseminate knowledge, as well as to build an awareness on health care, using modeling and local wisdom communication tools to encourage the development of physical and social environment. Moreover, the outcome shows a positive response towards the elderly, chiefly, a better environment to facilitate the efficient control and prevention of NCDs; better attention; a willingness and recognition of their own capacity in controlling and preventing NCDs and finally, their adaptability to sustainable control and prevention of NCDs not only by self-regulatory, but also by a sense of efficacy that enables them to enhance their psychological well-being. A visual representation of the health promotion model is provided in Figure 1.

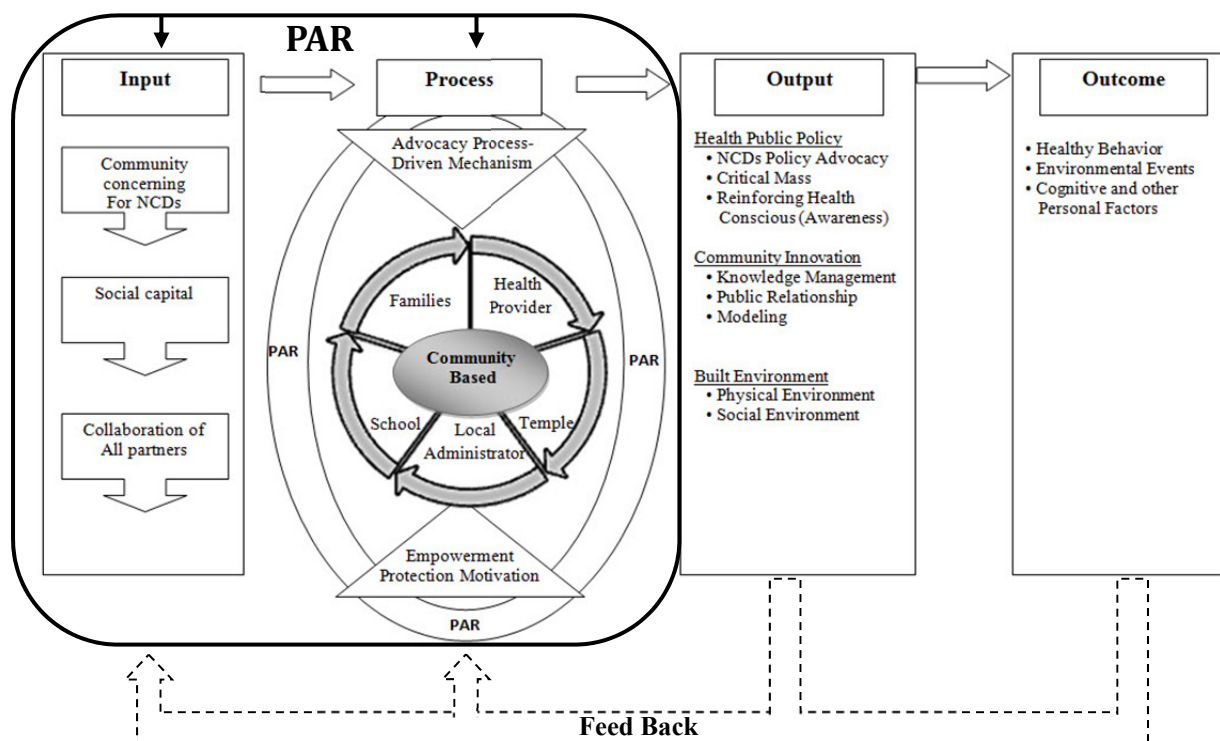


Figure 1. The development of a health promotion model integrating community participation for prevention and control in hypertension and diabetes among the elderly

4. Discussion

The research provided considerable information on the problem of an increasing prevalence of hypertension and diabetes in this particular community. The project was successful in achieving the desired aims, firstly, to develop a health promotion model integrating community participation for the prevention and control of hypertension and diabetes in the elderly in this particular setting and, secondly, to implement interventions to prevent these specific diseases. This success may largely be attributed to the community-based participatory action research method, which benefits from unique engagement from all sectors including to local administrators, government officers, and civilian sectors. Through all these processes, shared lessons were learned and a community project created in order to enhance the promotion of healthy aging. Also, it had a monitoring system for elderly behavior, preventive related activities, and encouraged social participation (Davies, 2010; Etowa, 2007; Holmes, 2011; Patel, 2001). One of the unique features of this model development was that it included all four components that improved the model. These critical factors are outlined below.

It was found that identifying indicators of human capital for authentic participation is the key to contributing which participation will create input. The findings of social capital are an important input based on the context of community. These included a community leader, an elderly leader, local officers, Buddhist monks, religious leaders, a youth leader, a community health worker, public health voluntary staff, local administration leaders, and the community's public health office staff and so on. Yet, in terms of social capital and cohesion, the participation of elderly people can offer great benefits (Rainex, 2013). The researcher has developed a database on human capital in communities and brings all these key components into the learning process using a participatory approach- PAR. The participating leaders of the community under the project are closely related to the implementation of the same ideas for the development of sustainable community strength. In addition to using the demographic data, the socio-geography is also to be put into consideration as an important input, in relation to sustainable community development. It is because of the human capital that creates social capital: the most important component is contributing to the sustainable happiness of our mankind. All these are principally based on active participation of all parties concerned (Lukler, 2000; Hawk, Adams, & Hartvigsen, 2015; Oo, 2015). The researcher is required to look for the relevant data i.e. human capital and social capital including civic mechanism to be used in health promotion model design planning.

It is interesting to note that appropriateness of PAR. It is a research tool suitable for problem solving which is different from the concept of conventional researchers. For instance, after going through PAR, the people in the community know about their problems and participate in solving them (Haregu, Setswe, Elliott, & Oldenburg, 2014; Hawk et al., 2015; World Health Organization, 2015; Pajalic, 2015). An activity partnership between all the participants developed, in which individual discussions and group forums encouraged a sense of ownership, and shared commitment to a successful outcome (Whitehead, 2003). There were various integrated activities in the community, based in collaboration with all strategic partners, such as families, school, temple, health providers and local administrators. Furthermore, protection motivation and empowerment theory had supported in the PAR process. A sense of empowerment and motivation received from participating in the self-help group through the many training programs the PAR project fostered more self-control and power in participants, leading to better changes in managing hypertension and diabetes (DeCoster, 2005); (Gibson, 1993; Grady, 2001). Protection motivation for NCDs was mainly used when discussing health issues, as well as how people react when being diagnosed with health related illnesses, which stems from both the threat appraisal and the coping appraisal (Rogers, 1983; Thurston RC, 2009). Activities were designed, for example, for home health care of both severity and vulnerability. It focused on the source of the threat and factors that increase the likelihood of maladaptive behavior. Severity referred to the degree of harm from unhealthy behavior (Oo, 2015; Pajalic, 2015). The driven mechanism of community facilitators, including the elderly health club courses, alternative health education, youth volunteer-designed health club, were able to serve on health boards to bring their often silenced voices to decision-making arenas. This has been truly empowering, as evident in one facilitator's aspiration to run for political office in the future (Etowa, 2007). According to Fleury's theory of wellness, motivation and empowering potential of individual motivation can initiate and sustain health behavior. It was a continuous process of individual growth and development, which facilitated the emergence of new and positive health patterns. Within the process of empowering potential, individuals use a variety of strategies which guide the initiation and maintenance of health-related change (Hackam et al., 2010; Davies, 2010; Fleury, 1991).

In our study, the output of this model created encouragement of healthy aging, NCDs policy advocacy, critical mass, reinforcing conscious, awareness and community innovation, such as knowledge management, public relationship, and modeling. Moreover, this research built environment both physical environment and social environment (Archanupap, 2008; Ciu, 2003; Whitehead, 2003).

Attributing change in outcomes to the success of a community-based intervention, according to a review by social cognitive theory explains psychosocial functioning in terms of triadic receptacle causation (Stuckler, 2008). In this causal model, behavior, cognitive and other personal factors, and environment events all operate as interacting determinants that influence each other bi-directionally. The research occurred in personal factors that contribute importantly to these dynamic aspects of social cognitive theory and are especially relevant. They include developing competencies through mastery modeling, strengthening people's beliefs in their capabilities, so they make better use of their talents, and enhancing self-motivation through goal system (Stuckler, 2008). For the involvement of all parties, this project has illustrated the value of other local teams in community-based initiatives to promote health. The collaboration between the researchers in facilitating all parties' ownership of research activities transformed not only our research practice but also how all parties perceive and interact with elders related to behavioral health (Ingram, 2015; Pajalic, 2015). It has shown that the establishment of mechanisms to monitor and link community-based services to local primary health services may strengthen the quality of the services provided and increase their long-term sustainability (Bradley, 2007);(Lin, 2014)). Regarding the After Action Review for reflecting on the end of the project, the project participants shared the results of this study. It showed that the establishment of community involvement in dealing with active healthy aging in the community and by linking community-based services to local primary health services, the project provided a basis for the development of community-based strategies to tackle the increasing levels of hypertension and diabetes and other non-communicable diseases, as well as to bring about changes in care context in the community (Clark, 2013; WHO, 2013). The project acted in accordance in achieving the desired aims of identifying strategies to build on this best practice, according to the Ottawa Charter and Bangkok Charter for Health Promotion, is the process of enabling people to increase control over their health and its determinants, and thereby improve their health (World Health Organization, 1986, 2006). This project included all three improvement in health requirements: advocacy for healthy aging, enabling all elderly to achieve their fullest health potential, such as equity in health, environment support, access to information, life skills and opportunities for making healthy choices. Another aspect all parties have a major responsibility to mediate between differing interests in society for the pursuit of health.

Regarding the dissertation, it showed building health public policy to address the increase in NCDs (Holmes, 2011), creating supportive environments to change patterns of life, strengthening community action to enhance

self-help groups and social support, developing personal skills to make choices conducive to health and reorienting health services to respond to health promotion in health services (Holmes, 2011; Rainex, 2013).

5. Limitations

One of the limitations of this study included an association with small-scale studies. Another limitation was local political, in that the researcher had a neutral role in working with the community. Also, during the analysis, an attempt was made for the views of all member of the research team to be used for constructing the coding scheme.

6. Conclusion

The present study highlights the benefits of community involvement in promoting active and healthy aging in a community, including better self-management of chronic conditions, greater community participation in healthcare service provision, better relationships within families and among community members, and sustainability of health care efforts. Several useful examples of successful and sustainable initiatives for catalyzing the formation of elders' clubs and community innovation are also demonstrated. Based on the findings, it can be concluded that success was achieved in the development of health promotion model increasing community empowerment, critical mass, reinforcement of motivation for prevention and control of NCDs and the sense of ownership. The model was successful.

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Competing Interests Statement

The authors declare that there is no conflict of interests regarding the publication of this paper.

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