COMMUNITY ENGAGEMENT AND NON-COMMUNICABLE DISEASES (NCDS) MANAGEMENT USING COMMUNITY DIAGNOSIS PROCESS IN LAMPANG, THAILAND

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Abstract

Morbidity rate of non-communicable diseases (NCDs) in Thailand has been dramatically increasing. The statistics reported by the Bureau of Policy and Strategy, Ministry of Public showed that the crude death rate of Thai population in the year 2015 was 6.9 per 1000 persons and NCDs are the leading cause of mortality and have become a serious public health threat.

This study aimed to synthesize 15 papers of the communities in Lampang province which identified NCDs as a first priority health problem and ran the projects on NCDs management in the Academic year 2016 (August 2015 – June 2016). These papers were based on a reality practice of the 4th year nursing student in Family and Community Practicum II subject. The main focus was on methods and models as well as factors having impact the success upon community engagement for NCDs management via community diagnosis process. The one-month practice of community diagnosis consisted of 4 steps: assessment, planning, implementation and evaluation. The concept of community engagement to manage NCDs in such a process is that the community is belonged to people so that they should play a meaningful role in the discussions, deliberations, decision-making and implementation of projects to solve their health problem together with the support by responsible local organizations.

The study comes to the conclusion that the success of NCDs management by engaging community involvement depended on the factors as followed: 1) the empowerment of community leadership, 2) the local organization cooperation and funding backup, 3) the practical projects to manage NCDs was based on their reality of community background and culture.

Key words: Community engagement, Community diagnosis, Non-communicable diseases (NCDs)

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Introduction

Non-communicable Diseases (NCDs) has become a globally serious health problem. NCDs, such as heart disease, stroke, cancer, chronic respiratory diseases and diabetes, are recently the leading cause of mortality in the world. According to World Health Organization [WHO] reported in 2015, of 56.4 million global deaths, 39.5 million, or 70% were due to NCDs. Over three quarters of NCDs deaths, about 30.7 million, occurred in low- and middle-income countries (WHO, 2015). In Thailand, no difference from other countries, morbidity rate of NCDs has been increasing and four main causes of NCDs morbidity were hypertension, ischemic heart disease, stroke, and diabetes mellitus. Moreover, looking into the crude death rate of Thai population, 6.9 per 1000 persons in 2015, NCDs were the leading cause of deaths, estimated to account for 70% of total deaths. The number one cause was cardiovascular disease which increased from 2013 to 2015 by 55.20 to 90.34 followed by stroke 20.65 to 38.66 per 100,000 persons (Bureau of Policy and Strategy, Ministry of Public Health, Thailand, 2015).

As we known, NCD is a common, preventive disease. The risk factors that underlie most NCDs are the result of four harmful behaviors: tobacco use, physical inactivity, unhealthy diet, and use of alcohol (WHO, 2015). To strengthen national efforts to address the burden of NCDs, each country may create strategic or action plan for the prevention and control of NCDs followed the WHO guideline and based on the country context and culture. In Thailand, almost of campaigns to prevent and control of NCDs tend to reduce the risk factors of NCDs. For example, the investment in health promotion projects to prevent NCDs. The roadmap for national efforts to influence behavior change. Therefore, community health nurses, who have worked closely to provide care for people in the community, are increasingly being recognized as a precious part of the health workforce mainly focusing on promotion and prevention roles.

Over decades, primary health care providers, including community health nurses, have provided care and monitored for NCDs to intercept a new patient using numerous interventions such as the detection, screening intervention assisted in monitoring blood glucose, blood pressure, and potential complications in a high risk group, education on diet, exercise, and risk factors related to smoking and use of alcohol. (Bureau of Non Communicable Disease, Ministry of Public Health, 2015). However, incidence of NCDs have been increased continuously as statistics shown previously. It can be said that this is not a success of preventive action and management of NCDs in Thailand. NCDs management relied solely on health care provider’s action may not be effectiveness to prevent and control of NCDs. The concepts of community engagement in managing NCDs have been adopted.

Community engagement is defined as “the process of working collaboratively with and through groups of people affiliated by geographic proximity, special interest, or similar situations to address issues affecting the well-being of those people. It is a powerful vehicle for bringing about environmental and behavioral changes that will improve the health of the community and its members…” (Centers for Disease Control and Prevention [CDC], 1997, cited in Clinical and Translational Science Awards Consortium [CTSA], 2011). The objective of community engagement is to build allies and collaborations, create better communication, and improve
health outcomes in health promotion projects (Shore, 2006). Meaningful the community engagement is so important in strengthening the efforts and effectiveness of addressing their health issues. People in the community are responsible to participate individually and collectively in all processes along with health professionals roles in managing the community health problems, especially NCDs.

Department of Community Health Nursing, Boromarajonani, collage of Nursing, Nakhon Lampang has four missions: 1) producing professional nurses; 2) developing healthcare professionals and providing academic services pertaining to public health; 3) conducting research and developing knowledge; and 4) maintaining Thai art and cultural heritage as well as local wisdom. The first and the main mission is to produce professional nurses who meet international standards. The department is responsible to manage both theoretical and practicum courses related to wellness in individuals, families and communities while acknowledging their diversity, unique characteristics and abilities. To enhance the roles and develop community health competencies for nursing student in managing NCDS in the community, community diagnosis has been used as a tool for a field practice. The importance of community diagnosis is that it is a part of a dynamic process leading to health promotion in the community. The process comprises: 1) community assessment, examining aggregate and social statistics in addition to the knowledge of the community situation, so called “community profile.” This process includes data analysis which uses statistic operations looking into and categorizing data and community diagnosis which reaches the conclusions drawn from the data analysis; 2) planning, forming strategic and action plan what should be done to solve community health problem; 3) implementation, performing actions/activities according to strategic or action plan; and 4) evaluation, determining plan and implementation and conducting continuous quality improvement (Department of Health, 2009)

Purpose

This study aimed to synthesize 15 papers of the communities in Lampang province which addressed NCDs as a first priority community health problem and ran the projects on NCDs management in the Academic year 2016 (August 2015 – June 2016). The main focus was on methods and models as well as factors having impact the success upon community engagement for NCDs management via community diagnosis process.

Methods

Design, sample and setting

In the Academic year 2016 (August 2015 – June 2016), there were 230 of the fourth year students who enrolled for the Family and Community Practicum II subject. The students were divided into 29 groups; each included 7-8 students. Each group had embedded, lived in the community to one-month practice using community diagnosis as a guideline. The practice was
supervised by nurse instructors and health professionals in the community. A qualitative design synthesizing papers done in the community after one month practice was conducted. The settings were 29 communities with maximum 200 households in Lampang province, Thailand.

**Data collection and analysis procedures**

Papers after done community diagnosis process and only the communities that NCD was addressed as a priority of community health problem were collected. Secondary data analysis of existing data was used. Mixed research, question-driven and data-driven, was approached. By the research question-driven approach, the researcher have a priori question in mind and then look for suitable datasets to address the question. The questions in this study mainly focused on what were the models and methods used in managing NCDs problem in the community? And what were the factors having impact the success of community engagement and NCDs management? By the data-driven approach, the researcher glanced in a particular dataset and decided what the details can be found by the available data.

In terms of ethical consideration, permission to conduct the study was obtained from the Ethics Committee at Boromarajonani College of Nursing, Nakhon Lampang. Informed consent of using community data was requested from each community leaders and authorized and funding organizations in the community.

**Results**

There were 15 out of 29 communities (51.73%) were eligible for inclusion in this review. The resulted could be summarized, according to community engagement in community diagnosis process for managing NCDs, into 3 parts as follows:

1. Methods used in managing NCDs

   Involvement in community assessment, community leaders and health volunteer workers and nursing students sought to gather accurate and all aspects information representative of the needs and problem distressed populations of a community so called “community profile.” They used various types of instruments to collect data from both primary and secondary resources: Thailand Community network Appraisal Program (TCNAP) which was developed as a tool to promote learning and data management in the community, anthropological and epidemiological tools, health indicators, family folders, genogram, basic minimum needs, in depth interviews, focus group, for examples. In addition, in community health problem diagnosis, people of the community had been seen as equal partners and had a right in identifying and setting priority what problem should be selected and sorted for solving by referendum process. As stated previously, there were 15 communities that the people voted NCDs was the first impact health problem and needed to be solved.

   In planning and implementation process, the information gathered in the community assessment will help to develop strategic and action plan and to enable the community to have a meaningful influence in decision making. The people of the community and local organizations would identify how the actual plan could best meet the needs of and provide benefit to the
people who live in the community as well as the people of the community to be more involved and provided their opinions and feedback about the envisioned plan and project. In addition to implementation, the people of the community implemented the activities followed the plan and the project. Community leaders and health volunteer persons were key persons who could encourage the community members to get involved in all activities as planned.

The last step, evaluation process, CIPP (Context, Input, Process, Product) model was used as an evaluation tool. Community members participated in project evaluation to access adequacy and appropriateness of current individual programs and activities. They measured the relevance, satisfaction and effectiveness of an existing activity in order to make improvement plan for the next loop of the community diagnosis process.

2. Models used in managing NCDs

The results showed a variety of models used to manage NCDs as follows:

1. The media is an important part of public relations responsibility. Relevant and important information, all kinds of communication routes that were appropriated with community context in regards with the community concerns and participation, should be shared within communities via public meetings, local media announcements, fact sheets and flyers.

2. Strengthening knowledge and developing capability included the knowledge about the disease, health behavior monitoring, study visit, and experience sharing among patients or risk groups. In terms of capability development for NCDs management, community health volunteers were trained to develop their skills of screening, monitoring and educating nutrition, exercise and all kinds of health risk behaviors as well as had practiced the skills regularly.

3. Awareness raising about the risk behaviors were activated by using appropriated advertisement, local media and community news. Moreover, the motivation by a good role model in the community and patients/risk groups experience sharing were also used.

4. Health volunteers along with health professions did a home health visit among NCDs patients. The objective for home health visits was to individually case management based on patient’s situation as well as to evaluate and supervise health volunteer’s skills.

5. Encourage healthy behaviors and disease prevention activities were to establish exercise club which led by talent person in the community and to support the use of herbs for cooking rather than eating high carbohydrate or high lipid foods.

3. The success of NCDs management by engaging community involvement

1. The empowerment of community leadership. Leadership skills did not come naturally. Among 15 communities set in this paper review, there were various types of community leaders. The studies found that not only formal leaders who could lead or combine
people power, but it was also informal leaders who the people paid a respect even though they did not have an official position. Almost of communities which succeeded in NCDs managing projects were depended on empowering community leaders.

2. The local organization cooperation and funding backup. The communities which the local authorities were aware that NCD was a major health problem and provided cooperation and supported the budget were often successful in NCDs management.

3. The practical project to manage NCDs was based on their reality of community background and culture. In order to achieve good results in projects run to manage NCD, people in the community should get involved in all steps to know the community backgrounds, their way of life, resources, the strengths and the weaknesses so that they could create a project that meet their needs and possible to implement.

Discussion

Community engagement is a principle of primary health care which almost of the health care setting is in the community. There were previously numerous studies discussed the importance of community engagement and the improvement of health outcomes and services. However, there was less studies that described the connection between community diagnosis process and community engagement in NCDs management. This study provided a summary of fifteen paper done of working in the community using community diagnosis as a tool to get people participate in NCD management.

Community diagnosis is a process that allows people the opportunity to participate in community health problem solutions. Involvement in such a process since the initial process, community assessment, will help people to deeply understand their community context. Exploring social context and creating community profile has led to raise the concerns and incorporate people into a together decision-making based on the evidence they have from community profile and analyzed data. Consequently, planning and following actual actions or activities have been made as the community needs. This finding is similar to the study by Nitirojana (2014) reported that participation was the heart of development at every level and was the opportunity to let people share ideas, analyze and make decision and then cultivate the spirit and create the ownership.

The models of activities employed during the process included media use, strengthening knowledge and developing capability, awareness raising, home visit, and health behaviors encouragement. Because of the complexity of the NCDs problem in each community, solely use of one activity might not be succeeded in improving the outcomes of NCDs management. Using a variety of activities enhanced the NCDs management more effectively. As stated by Moore, Mcdonald, Mchugh-Dillon & West (2016), if overall improvements in health outcomes were to be achieved, a different approach to the design and/or delivery of services was needed as well as traditional approaches, such as services provided by one-side and/or top-down delivery to addressing the problems should be shifted.

The key success in NCDs managing was empowering community leaders. In the
primary health care system, the traditional care services have been provided by community nurses who are the major and professional contributors. However, in a low- and middle income countries, health care volunteer has seen as an important and a key contributor to primary health care as well as community nurse (Tsolekile, Puoane, Schneider, Lavitt & Steyn, 2014). Health care volunteer is like a limb to deliver health care services assisting of community nurse, especially when it is a shortage of community nurse. Actually, they are people who work voluntarily in the communities in which they reside. Those health care volunteers were compared as community leaders in regards as health care system. In order to strengthen the leaders’ abilities and confidence in providing health care services for NCDs management, empowerment of leadership will influence the confident actions of individuals from their leader voluntarily work to achieve the goals. Empowering strategies could be being educated in academic knowledge, being frequently trained in screening and monitoring as well as communication skills, and being supervised by community nurse (Okuga, Kemigisa, Namutamba, Namazzi & Waiswa, 2015). In addition, support from local organization and relevant agencies which involved in financial support, materials, and supplies yet another of driving factor of succeeding in NCDs management.

The limitation of this study is it still lack the results of changing behaviors due to people involve in NCDs management process. Further study should focus on behavioral changes of people that resulted from those engagement in such a process.

Conclusions

Synthesizing fifteen papers using community diagnosis as a tool and looking for the connection between community engagement and NCDs management showed the result that the three main factors of succeeding of NCDs management by engaging community involvement: 1) the empowerment of community leadership, 2) the local organization cooperation and funding backup, 3) the practical projects to manage NCDs was based on their reality of community background and culture. The study findings support the expanding knowledge that in light of these NCDs management in the community, community members must play an important role to create a strong community actions and to use community collaboration by engaging their efforts in building sense of community ownership, strengthening community networks, together decision-making for prevention and control of NCDs.
References


