



CHAPTER V

CONCLUSIONS, DISCUSSIONS AND RECOMMENDATIONS

This research study aims to investigate the effectiveness of the key community leader empowerment program in providing hypertension and diabetes mellitus knowledge and influencing more than 60% of people aged 40 and older in Kao Din sub-district, Kao Panom district, Krabi province to have screening for hypertension and diabetes mellitus.

The researcher adopted the empowerment education as the research framework and guidance for the empowerment training program for the key community leaders which was organized for the experimental group who lived in Moo 5 of Kao Din sub-district. Thirty people in the experimental group, selected to attend the training, were village headmen, assistants to the village headmen, members of Tambol Administrative Organization, health volunteers and members of woman occupational groups. The 2-day training program which applied participatory approaches aimed to empower the key community leaders to provide knowledge of hypertension and diabetes mellitus and influence other people aged over 40 to have hypertension and diabetes mellitus screening.

In addition, the research explored outcomes of the key communality leader empowerment before and after training periods on their knowledge about hypertension and diabetes mellitus and self-efficacy expectations. Regarding people aged 40 and older in the experimental and control groups, 100 people of each group

were required to fill in the questionnaire before and after experimental periods about their hypertension and diabetes mellitus knowledge and screening behaviors. All of these 200 people were very cooperative and willing to participate in this study.

This quasi-experimental research had two population sample groups; one was the experimental group in Moo 5 of Kao Din sub-district, Kao Panom district, Krabi province and the other was the control group in Moo 4 of the same sub-district. For the data collection, the researcher compiled 2 sets of data. The first data set was conducted with the key community leaders prior to and after the empowerment training program and again after the experimental period and the other data set with people aged 40 and older before and after interventions by the key community leaders which took 6 months. After the end of the experimental period, the data were statistically processed and analyzed and the results were determined in the form of percentage, mean and standard deviation. Comparisons between before and after experimental periods were made using paired sample t-test, z-test, Mc-nemar test. Here are conclusions of the data analysis and recommendations;

Conclusion of the research results

Research conclusions can be divided into 2 parts which can be summarized as follows:

Part 1: Data about the key community leaders

1.1 General information;

Almost all of the key community leaders were male (80%) and aged between 30-39 years. Most of them graduated from Matayom level (63.33%) and 86.67% worked in agriculture. The majority of the leaders earned over 10,000 baht (80%) and were health volunteers in their village (70%).

1.2 Knowledge of hypertension and diabetes mellitus

There were statistically significant differences between before and after training periods (P-value <.001) and also between before experimental and after experimental periods (P-value < .001) which supported the research hypothesis point 1.1: Empowerment training program will cause more positive changes knowledge among key community leaders, compared to before training.

1.3 Self-efficacy expectations

Results showed a significant difference between before and after training periods (P-value < .001) which was consistent with the hypothesis point 1.2: Empowerment training program will cause more positive changes self-efficacy expectations among key community leaders, compared to before training.

1.4 Behaviors in providing knowledge and influencing other people to have screening for hypertension and diabetes mellitus

1.4.1 Behaviors in providing knowledge:

There was a significant difference between before and after experimental periods (P-value < .001) which supported the hypothesis 1.3 “Empowerment training program will cause more positive behaviors in providing knowledge among key community leaders, compared to before training”.

1.4.2 Behaviors in influencing other people to have the screening

There was a significant difference in proportions between before and after experimental periods (P-value < .001) which was consistent with the hypothesis 1.3 “empowerment training program will cause more positive behaviors in influencing other people to have the screening among key community leaders, compared to after training”.

Part 2: Data about people aged 40 and older

2.1 Experimental group

The experimental group consisted of people residing in Moo 5, Kao Din sub-district, Kao Panom district, Krabi

2.1.1 General data

It was found that most of the people aged over 40 were female (54%) and 31% of them were aged in the range of 40-44 years.

2.1.2 Knowledge of hypertension and diabetes mellitus

There was a statistically significant difference between before and after experimental periods (P -value $< .001$) which supported the hypothesis 2.1: “there will be more positive changes as a result of interventions by key community leaders in knowledge of hypertension and diabetes mellitus”.

2.1.3 Screening behaviors for hypertension and diabetes mellitus

There was a statistical significant difference in proportions on their screening behaviors between before and after experimental periods (P -value $< .001$) which was in accordance with the hypothesis 2.2 “there will be more positive changes as a result of interventions by key community leaders in screening behaviors for hypertension and diabetes mellitus”.

2.2 Control group

The control group consisted of people residing in Moo 4, Kao Din sub-district, Kao Panom district, Krabi province.

2.2.1 General data

It was found that most of the people aged over 40 were male (52%) and 30% of them were in the age range of 40-44.

2.2.2 Knowledge of hypertension and diabetes mellitus

There was no statistically significant difference between before and after experimental periods.

2.2.3 Screening behaviors for hypertension and diabetes mellitus

There was no statistically significant difference between before and after experimental periods.

Comparisons between the experimental and control groups on their screening behaviors for hypertension and diabetes mellitus showed no significant difference before experimental periods but there was a significant difference after experimental (P-value<.001). After checking name lists of people aged over 40 who had the screening, almost all of them were influenced by the key community leaders (97.18%).

Discussions of the research results

Part 1: Key community leaders;

This part consists of four key issues as follows:

1.1 Knowledge of hypertension and diabetes mellitus

After training mean score was statistically significant higher than before training because the majority of the key community leaders who attended the program were aged in the range of 30-39 years. At such age range, they were open and very competent for learning new things. In addition, they were mature and sensible adults who had been serving their community for more than 6 months. Moreover, some of the community leaders had acquired some health knowledge from public health personnel. These findings are consistent with a study conducted by Kamolpetch et al. (1999) which explored the effectiveness of the empowerment program for key leprosy

contact cases to seek new cases in Nakhon Ratchasima province and found significant improvements after the training in terms of their knowledge about leprosy, compared to before training period.

1.2 Self-efficacy expectations

Results showed that the overall mean score of the self-efficacy expectations after training period was statistically significantly higher than before training. This can be explained by citing a concept of Bishop et al. (1988) and Arnold & Burke (1988) which says that after a course of actions, there would be immediate changes or improvements. The fact that the key community leaders had learned and acquired knowledge about hypertension and diabetes mellitus made them realize of their capabilities and feel capable of providing such knowledge and influencing other people to have hypertension and diabetes mellitus screening. This is consistent with a study by Homchan (2002) which explored the effectiveness of the empowerment program on self-care behaviors among diabetes patients in Lomsak Hospital, Petchaboon Province. Results of the study indicated that self-care behaviors could elevate their self-efficacy expectations and also help them better control their blood sugar level, compared to before experimental period.

This result is also in line with Muangkum's study (2002) which investigated the community empowerment on an implementation of Hookworm disease control and prevention in Chalermprakiet district, Nan province. Muangkum's study found that the empowerment program could significantly help community leaders increase their self-efficacy expectations in controlling and preventing the disease in the community. In addition, similar results can be found in another research study which was conducted by Intarasomwang (2000) on the empowerment program

in HIV/AIDS prevention among pregnant women in ANC unit of Phra Mongkut Klao Hospital. Her study revealed that the empowerment program could significantly help the experimental group increase their self-efficacy expectations. However, all of these studies are against a study by Kamolpetch et al. (1999) which explored the effectiveness of the empowerment program in key leprosy contact cases to seek new leprosy cases in Ratchasrima and concluded that the self-efficacy expectation at after experimental period was lower than before experimental.

1.3 Behaviors in providing knowledge to neighbors

Results indicated significant differences in proportions of their behaviors in providing hypertension and diabetes mellitus knowledge between before and after experimental periods. This can be explained that when the key community leaders had knowledge and correct understanding and they acquired skills from the training, they became more determined to work on the prevention and control of hypertension and diabetes mellitus. So, they started to actively provide knowledge to people in their community with confidence. Additionally, these key community leaders resided in the community and they were close to the local people, so they had plenty of time and could seize more opportunities to give advice about hypertension and diabetes mellitus than public health officers. This is consistent with results of Muangkom's study (2002) which explored outcomes of the community empowerment in the Hookworm disease control and prevention in Chalermprakiet district, Nan province. The study concluded that the empowerment program enabled key community leaders to plan and implement the disease control and prevention and also reduced the disease infection rate. Moreover, it is in line with a study by Banpuan (2004) on the effectiveness of the empowerment program in key community leaders for prevention

and solution of amphetamines in Saima sub-district, Muang district, Nonthaburi province. Her study showed that after the experimental period, the experimental group statistically significantly improved their performances as the leader in fighting against the amphetamines, compared to before experimental.

1.4 Behaviors in influencing other people

There were significant differences between before and after experimental periods in terms of behaviors of the key community leaders in influencing other people to have screening. This is because when the key community leaders had knowledge and correct understanding and they acquired skills from the training, they were more determined to put all of their efforts on prevention and control of hypertension and diabetes mellitus. They became more active in persuading and encouraging people in their community to have the screening. They had far more opportunities in meeting and talking with local people about the screening than public health officers. This is consistent with results of a research study by Kamolpetch et al. (1999) which investigated the effectiveness of the empowerment program in key leprosy contact cases to seek new leprosy cases in Nakhon Ratchasima. Kamolpetch's study concluded that after the experimental period, performances of key leprosy contact cases significantly improved and the number of new leprosy cases whom they had persuaded to have the physical examination for leprosy was higher than before experimental. This showed that the empowerment training program could encourage leprosy cases to change their behaviors and seek physical examinations for leprosy.

Part 2: People aged 40 and older

This part can be divided into 2 groups; experimental and control groups.

2.1 Experimental group

2.1.1 Knowledge of hypertension and diabetes mellitus

The mean score of hypertension and diabetes mellitus knowledge after experimental period increased significantly. This is simply because the experimental group had acquired accurate knowledge from the key community leaders with whom they trusted and felt close and comfortable to talk. As a result, these key community leaders could provide knowledge and give clear answers for their problems and the experimental group were comfortable to ask questions if they were unclear. It is consistent with a study by Kamolpetch et al. (1999) which explored the effectiveness of the empowerment program for key leprosy contact cases to seek new cases in Nakhon Ratchasima province. Her study found that the empowerment training program could be of use in providing knowledge about leprosy to leprosy patients and there were statistically significant improvements in terms of their knowledge about leprosy.

2.1.2 Screening behaviors for hypertension and diabetes mellitus

After the experimental period, the number of cases taking hypertension and diabetes mellitus screening increased, compared to before experimental. This is because they acquired accurate knowledge and were regularly encouraged by key community leaders. It is consistent with a study by Boonyakongrut (2001) which explored effects of hypertension and diabetes mellitus participative screening service on consuming rate and satisfaction of clients, Hunkha district, Chainat Province. Her

study revealed that the consuming rate of villages where people had participated was statistically significantly higher than those without participation from people.

2.2 Control group

2.2.1 Knowledge of hypertension and diabetes mellitus

The mean scores before and after experimental periods yielded no significant differences. It may be because the control group did not acquire knowledge from their neighbors about hypertension and diabetes mellitus and it is consistent with results of Petchrak & Thongpetchsri's study (2001) which explored the program development for mental health promotion by empowering health volunteers on mental health community prevention in Phang Nga province. Results of his study revealed that the mean score of the control group was slightly higher than before experimental and there was no statistically significant difference between before and after experimental periods.

2.2.2 Screening behaviors for hypertension and diabetes mellitus

After the experimental period, there were slightly more people taking the screening, compared to before experimental. It may be because there was no intervention for this group and they were not constantly encouraged to have the screening by people in their community.

Comparisons of proportions on hypertension and diabetes mellitus screening behaviors between the experimental and control groups after experimental period showed a significant difference and the experimental group had a higher proportion than the control group on the screening behaviors. Such result is consistent with Boonyakongrut's study (2001) which investigated effects of hypertension and diabetes mellitus participative screening service on consuming rate and satisfaction of

clients, Hunkha district, Chainat province which found that the consuming rate of villages where people had participated was statistically significantly higher than those without participation from people. In addition, it is also consistent with a study by Kamolpetch et al. (1999) which explored the effectiveness of the empowerment program for key leprosy contact cases to seek new cases in Nakhon Ratchasima province and found that after the experimental period, the experimental group had more success than the control group in terms of physical examinations for leprosy.

Recommendations

In this part, the researcher would like to present recommendations for future studies. The following recommendations are based on results of this research study;

Recommendations from the research study

1. The empowerment training program for key community leaders on hypertension and diabetes mellitus prevention and control would be appropriate for community leaders who are strongly determined to serve the community because it encourages self-learning based on real life experiences. Additionally, the empowerment is the natural learning process and involves self-efficacy belief. These enable the community leaders to learn about themselves and how to solve problems accurately.

2. The empowerment program should be appropriately developed and integrated with several activities so that the program will be interesting and not redundant. In addition, the empowerment program with a variety of activities will stimulate the learning process, making learners become more active and eager to learn and ultimately encourage them to improve their behaviors.

Recommendations for future studies

1. Research timeframe should be extended to at least 1 year and longitude studies should be supported in order to evaluate and follow up on the project's sustainability. Six month projects are too short to conduct an evaluation of behavior changes.

2. Other target groups should be investigated; such as, students, key family leaders, because these groups take care and reside with people aged over 40 years who are at risk of hypertension and diabetes mellitus.

3. Comparative studies should be conducted with key community leaders in different locations; such as, between urban and rural areas because this study focused only at rural areas.