THE NUTRITION HEALTH BEHAVIOR MODIFICATION FOR CONTROLLING HYPERTENSION AT RUAMJAIPATTANA COMMUNITY BANGKOK

[1]BOONSRI KITTICHOTTIPANICH, [2]POOSADEE PROMMETE, [3]NAMTHIP MARTKOKSOONG

[1]Instructor of Nursing and Health College, Suan Sunandha Rajabhat University, Thailand
[2,3]Staff Nurse at 57 Public Health Center, Bangkok, Thailand
E-mail: [1]boonsri.ki@ssru.ac.th, [2]poosadee2504@hotmail.com, [3]Jang25261@hotmail.com

Abstract— The action research aims to study how to change nutritional health behavior for controlling hypertension and satisfaction of the modification program. The sample of subjects were people who at risk of high blood pressure. A total of 100 people from the Ruamjaipattana Community Bangkok. Most are female have lower education. Entitled to healthcare Gold Card in Bangkok. The vulnerable groups with high blood pressure 34 percent and risk to hypertension 40 percent. The duration of program 3 months during march 2013 to may 2013. The program consist of participatory learning how to controlling dietary daily eating by Increasing 3 S : Self efficacy , Self regulation and self-care for controlling and prevention of hypertension. The results showed that after enrolled Nutritional health Behavior Modification program. The participant had higher score in their health behavior (Self-efficacy) , Self-regulation and Self-care better than before the program: at 93, 95 and 96 percent of participants respectively. It was a change in a better direction: 67 percent decrease blood pressure, 51 percent weight loss and BMI decrease of 51 percent too. Most of them were satisfied with the high level of 97 percent. The key Successful projects were the cooperation of participants, a variety of activities that highlight that encourage participants knew how to use in daily eating and practice. The event continues to be made with the cooperation of a multidisciplinary, comprehensive facilities. This national participatory learning was the one method to use as guideline for health promotion in the community. Suggestions on the next project is focused on the development other health behavior that encourage participants have truly skilled health through real action.

Keywords— Nutrition Health Promotion, Hypertension, participatory action learning, Health Behavior Modification.

I. INTRODUCTION

Hypertension is a chronic non-communicable disease which is a major public health problem in the world, including Thailand. Most people with high blood pressure have no signs or symptoms, even if blood pressure readings reach dangerously high levels.[1] A few people with high blood pressure may have headaches, shortness of breath or nosebleeds, but these signs and symptoms aren't specific and usually don't occur until high blood pressure has reached a severe or life-threatening stage.[1] For most adults, there's no identifiable cause of high blood pressure. This type of high blood pressure, called primary (essential) hypertension, tends to develop gradually over many years. [1] The situation hypertension worldwide. WHO Worldwide, there are reports that people with high blood pressure, up to a billion people. Of which two-thirds of this is. developing countries [2]

Currently, Thailand has a disease, hypertension, approximately 11 million deaths per year, and more than 3,000 people and found that the rate of patients who need to be admitted to the hospital with severe hypertension increases in circumference. 10 years ago, is also found. There are men, 60 percent women and 40 percent are unaware that they have high blood pressure. The patient knows that this disease is approximately 8-9 percent refuse treatment. The symptoms intensified further and, damage to blood vessels and your heart continues and can be detected. Uncontrolled high blood pressure increases your risk of serious health problems, including heart attack and stroke. [3] The disease can lead to paralysis, kidney failure and heart disease. [4]

The main objectives of the Nutritional health Behavior Modification was set for helping the risk groups and people with high blood pressure understand and realize the threat of disease. Knowing the causes of disease know the early warning signs of high blood pressure. Knowing how to prevent delay hypertension learn about 3 SELF (Self-efficacy, Self-regulation, Self- care) on high blood pressure control and prevent complications that arise as a consequence.

To maintain good health habits as a way of life of each individual, consisted as the follow:

1. Positive reinforcement - positive reinforcement.
2. Result based management - principles for the achievement of the task.
3. Optimism - The optimistic.
4. Motivation - motivating.
5. Individual or client center - seizing people at the center.
6. Self- esteems - Principle build self esteem.

Objectives

The participants who attended this program, their health will be changed in 3 Self as follows.

1. Increase Self efficacy in behavior control and prevention of hypertension.
2. Increase self regulation behavior control and prevention of hypertension.

3. Increase self-care behaviors for controlling and prevention of hypertension.

Research Design And Samples

The research design by using Participatory Action Research (PRA) with 100 purposive sampling at Ruamjaipattana Community Bangkok, who at risk for high blood pressure. They enroll in the participatory activity with PROMISE Model during march, 2013 – may 2013, for creating 3 Self (self awareness, self regulation, and self care) as in the step figure 1.

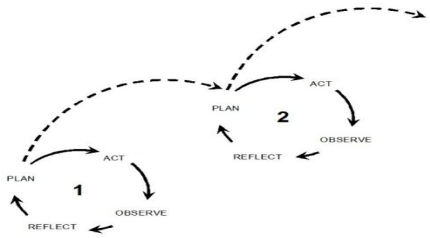

Fig. 1 shows a spin around the operating part for Controlling Hypertension

II. METHODS

A. Study design

The study used Participatory Action Research (PRA) over 12 weeks and took place between march 2013 to may 2013. At Ruamjaipattana Community Bangkok Thailand.

B. Participants

Methodology

The duration of the operation in Ruamjaipattana Community. By the method of participatory learning with PROMISE Model. Research design 4 times meeting during march, 2013 – may 2013 each time consisted of 4 steps planning, action, observe and reflect. The main activities in behavior modification were training awareness and self efficacy about health behavior change. Principle of daily food consumption, exercise relieves stress and empowerment for self care in the prevention and control of high blood pressure and home and nursing visiting, The participant have recorded health activities into their record book.

Eethics

The research takes into account the right of the sample. The objectives of the research process, research. The clarification of the right to accept or refuse to participate in this research program, without affecting in any way the lesson. In addition, during the research if the samples unwilling to participate in the research until completed on schedule. They can be terminated without affecting the learning of information obtained from this research are confidential. Presentation of data will be presented in an overview. There is not disclosure of the name and surname when samples are willing participants. The research sample signed a consent form to participate in the study (informed consent form).

C. Procedures

The plan of activities for promoting health and behavioral modification in each time were in the following

The first meeting activity

- Participation for creating knowledge about hypertension: cause and effect on health, severalty this activity in order for self awareness and participation in changing their behavior and knew their self efficacy for daily eating, exercise, and stress management.
- Initial their health assessment activities, daily check blood pressure, food intake in each meal,
- Group discussion, participation in solving problems of the participants and nurse.

The second meeting activity

- To Improve understanding of nutrition health behavior modification , how to eat less salt, less fat, less sugar,
- Training eating activities , educated about nutrition behavior modification about quantity and quality of daily food consumption, how to choose, haw to control diet (salt, sugar, fat) how to cook and he satisfaction was assess, including daily exercise by walking and daily stress management. By using the empowerment strategy for increased self-regulatory.
- Group discussion demonstration and practicing

The third meeting activity

- Promoting knowledge to use in 3 S (self awareness, self regular and self-care).
- Physical activity
- Activity for modification health behavioral
- Evaluation activities individually by phone and home visits by nurse.

The fourth meeting activity

- Assessment activity after participating, and posttest.
- Summary of the activities and the benefits of participating.
- Discussion, brainstorming, find a conclusion together.
- Satisfaction was assessed and post test
- Awards and souvenirs.
- Closed the program

III. MEASUREMENT

To assess the 3Self (self awareness, self regulation and self-care) by used National Health Security Office questionnaires.

IV. DATA ANALYSIS

Statistical analyses were carried out with the statistic package program. Descriptive statistics for characteristics data of participant were given as, frequency and percentages.

V. RESULTS

The results showed that the most participant were female, 77.0%, age group more than 60 years old of 49%, with in lower bachelor degree education 97%.Most of them are entitled to health care provided by the government with a golden card of 77%. When considering the risk of disease found that high blood glucose, overweight and high blood pressure were the cause of NCD: Hypertension, Diabetes Mellitus, Obesity. The participants who had a disease of 41.9 % were Hypertension, 18.6% were Diabetes Mellitus, 29.6% were obesity and 9.9% were the patient with cerebovascular disease as shown in table I.

Table I: *Numbers and percentages of the sample (n = 100)*

Personal Data	n	%
Sex		
Male	23	23.0
Female	77	77.0
Age (yrs)		
30 -39	9	9.0
40-49	21	21.0
50-59	21	21.0
>60	49	49.0
Education		
High school,	97	97.0
Vocational Bachelor	3	3.0
Right of Medical Care		
Gold Card	77	77.0
Social Security	15	15.0
Government	8	8.0
The risk to Diseases (n=72)		
High Blood Pressure	15	20.8
High Blood Glucose Level	25	34.8
Cerebovascular disease	8	11.1
overweight	24	33.3
Participants. with Diseases(n=81)		
Hypertension	34	41.9
Diabetes Mellitus	15	18.6
Cerebovascular disease	8	9.9
Obesity	24	29.6

Table 2: *Showed the Numbers and percentages of the sample after program changes (n = 100)*

Personal Data	n	%
Blood pressure change		
Decrease	67	67.0
unchanged	26	26.0
Increase	7	7.0
Weight change		
decrease	51	51.0
unchanged	40	40.0
Increase	9	9.0
BMI		
Decrease	51	51.0
unchanged	40	40.0
Increase	9	9.0
Blood Sugar change Decrease	78	78.0
Unchanged	3	3.0
Increase	19	19.0
The scores of 3S		
Self efficacy	93	93.0
self regulation	95	95.0
self-care behaviors	96	96.0
Satisfaction of the Program		
Moderate	3	3.0
Extremely Satisfied	97	97.0

From the table II shown that after the program the participants had changed to better direction. Their were decreased of blood pressure, bodyweight , BMI, and blood sugar, and increase of ability of self efficacy, self regular and self care. This means that the participants changed their health behavioral to better health. Each variable has a rating of very good as the following:

1. Score of self efficacy increased than before enrolled the program of 93 participants, 93 percent of the total.
2. Score of self regular increased than before enrolled the program 95 participants, 95 percent of the total.
3. Score of self-care behavior increased than before enrolled the program 96 of participants, representing 96 percent of the total.

The satisfaction of participants in this program at the high level of 97 percent as shown in table II.

VI. DATA ANALYSIS FROM INTERVIEWING

In considering to the pattern of daily food pattern from the participant who had successful of decreasing blood pressure 15 persons. By analyze qualitative data about 3 S for prevention and controlling of hypertension on a daily basis that involves nutritional health behavior modification. By focusing daily eating management. The study concluded by telling the members about what when and how. The result concluded that most eat less salt, eat 3 times a day (breakfast lunch, dinner), eating less for dinner, Eating less especially salted fish , eating more vegetables and non sweet fruit, try no added ingredients in cooked food or food cans or food products. Do not add a little sugar at every meal, don't drinks sweetened beverages, avoid sweetened tea and coffee, avoid salted pickles to eat a long time. Eating fish regularly, two ladles of vegetable in each meal as the example from interview in following:

- Limited themselves not more than 5 teaspoon of salty sauce: fish sauce, sauce, soybean paste, soy sauce.
- Limited themselves not more than 5 teaspoon of sugar added in cooked food, tea, coffee.
- Do not eat fruit with salt and sugar added.
- Each meal eat one half of vegetable, one in four part of plate is fish, meat, egg, and the rest is rice - flour.

DISCUSSION & CONCLUSION

Because high blood pressure-related diseases. Schemes daily Current behavior and lifestyle will result in increased blood pressure. Especially dietary salt (sodium).Eating less fruits and vegetables fewer (less sweet), inadequate diet, lifestyle, sit, lie around. / Lack of exercise, drink more sweetened beverages, increasing age may result in increased blood pressure

rise. [1],[2],[3] It can be seen that the cause of hypertension that could change daily behavior Modified by learning and training and are aware of the dangers of high blood pressure. From this program is the participatory learning, participant can exchange the experiences and together solution, created a good image in the group. There is a nurse as consultant. The group conducted themselves. These are all factors to success.

These strategy according to the study of Intharakamhang, A. et.al (2010) [5] " Study of administration and evaluation to The health adaptation of Health Center in Bangkok 21 projects in 2009 found that After the program participating found the attendees had self efficacy in modifying their behavior (Self-efficacy) , Self-Direction. (Self-regulation), Self-Care (Self-care) more than before participating. The level of statistical significance ($p<0.01$) shows a change in a better direction. The study also found that after participating, the sample had Body Mass Index (BMI) , Blood pressure , Decreased of waist circumference (measured in cm), Blood Sugar (FBS), Cholesterol, Triglyceride 9. Body weight (kg), Systolic / Diastolic, Waist to hip ratio lower than before program. It mean that the risk group can modified behavior must good self awareness so they can got self regulation at last they can self management to prevent complication both acute and chronic complication mean that they got self efficacy.[5],[6]

By The self-management can improve health status.[4],[6],[7] From the study of Sumnuk, N. et.al[7] (2011) "Study of effective program modification behavior people health risk group to hypertension in community, Pakpanung district, Nakornsrithamaraj " found that participation got more knowledge, activities , exercises "Study of behavior modification in risk group to DM and hypertension" found that means of self management behavior about eating exercise increase after the study significant. The most common lifestyle in Thailand which risk metabolic syndrome were reduce physical activity, lack of self control, being overly courteous by not eating a healthy diet.[4],[5],[8] The lack of need to control their food intake is the key to prevention. [9],[10],[14]Thus in this program, the most participant increased the self regulation. That is the one guideline for controlling and prevention the chronic disease.

CONCLUSION AND RECOMMENDATIONS

This research using participatory action by focusing on nutrition practice via real learning then return to daily practice. The good activity were exchanged the experience group connection, lesson learn from interviewing will be a good practical results. This project is an alternative to be used to promote the daily health behavior for prevention and controlling of high blood pressure who are familiar threat human quietly serious violence, but prevented further.

ACKNOWLEDGMENT

This study was supported by the grant from Research and Development Institute, and Funding for Personnel Development Center, Suan Sunandha Rajabhat University (SSRU), Thailand. The researcher gratefully acknowledge to SSRU and College of Nursing and Health.

REFERENCES

[1] http://www.mayoclinic.org/diseases-conditions[cited 2016 June 15]. Available from: http://www.who.int/ncds/en/
[2] Communicable Disease. [cited 2016 June 10] http://www.hsri.or.th/researcher/research/trend/detail/4999
[3] Thaihealth. [cited 2016 June 10] Available from:http://www.thaihealthreport.com/#!-2558/c1w6v
[4] Health behaviors Thai Health Working Group. [cited 2016 June 15] Available from:http://www.hiso.or.th/hiso/picture/report Health/ThaiHealth2011/eng2011_5.pdf
[5] Intharakamhang, A. et.al (2010) " Study of Administration and Evaluation to Health Adaptation of Health Center in Bangkok. Bangkok : Behavior Science Research Institute. Srinakharinwirote University.
[6] Suraphol Ariyadetch. Effective of health behaviors change programs for prevention and control diabetes mellitus and hypertension for Pluakdaeng government officer. J Prapokklo Hosp Clin Med Educat Center 2012;29:205-216.
[7] Sumnuk, N.j et.al "Study of effective program modification behavior people health risk group to hypertension in community, Pakpanung district , Nakornsrithamaraj " PHN journal Khonkan University, 2011: 4 (2) (May – August).de Oliveira EP, McLellan KCP, Vaz de Arruda Sliveira L. Burini RC. Dietary factors associated with metabolic syndrome in Brazillian adult. Nutr. J 2012;11: 13.
[8] Noncommunicable diseases and their risk factors: [cited 2016 June 13]. Available from: http://www.who.int/ncds/en/
[9] Communicable Disease. [cited 2016 June 15] http://www.hsri.or.th/researcher/research/trend/detail/4999
[10] Thaihealth. [cited 2016 June 15] Available from:http://www.thaihealthreport.com/#!-2558/c1w6v
[11] Health behaviors Thai Health Working Group. [cited 2016 June 15] Available from:http://www.hiso.or.th/hiso/picture/report Health/ThaiHealth2011/eng2011_5.pdf
[12] Healthy ASEAN Lifestyles [cited 2016 June 13]. Available from:http://www.thaihealthreport.com/#!-2558/c1w6v.
[13] Wannapornsiri,C. and Lekchupol,N. Lifestyle risk of syndrome among Thai adult in rural area.Thai Red Cross Nursing Journal 2015: 8(2).
[14] Thipapan Sungkhapong, Poosadee Prommete, Namthip Martkoksoong and Boonsri Kittichottipanich.(2016). The health Behaviors Modification for Controlling and prevention Diabetes Mellitus by Using PROMISE Model at Premruthai Pravate Community Bangkok. Suan Sunandha Rajabhat University (SSRU), Thailand.

★★★