

INFLUENCING HEALTH WELLBEING IN ELDERLY BY FOLLOWING 6 FACTORS POLICY IN HMUEAWAI, MUANG DISTRICT, NAKON RATCHASIMA PROVINCE

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Abstract— This study aimed to find out influencing health wellbeing in Hmueawai, Muang District, Nakhon Ratchasima Province by following the 6 Factors Policy. Data collected from 286 aged populations by using interviewing questionnaires of which comprised of two sections, general demographics and specific health promotion practice by using the 6 Factors Policy. The devices were tested by experts with content validity of 0.66-1.00, Cronbach alpha coefficient for the reliability of the instrument of 0.82. The equation for health promotion following the 6 Factors Policy using stepwise multiple regression analysis. The elderly populations in the study were mostly female (65.4%), with the age range 60-69 years (61.9%), marriage (67.8%), the education at elementary level (92.7%), no specific occupation (37.4%), earning from their children (75.2%). Source of information about health were from television (55.6%). Most people had some sickness (83.9%), most common were hypertension (92%), diabetes mellitus (58.4%). The practice of health promotion according to the 6 Factors Policy was in medium level ($=2.77, S.D=0.27$). The Variables predicting health status of the elderly were diabetes mellitus (X8), hyperlipidemia (X10), radio (X12), newspapers (X13) and village audio tower (X14) with the power of prediction of 81.1%, multiple regress coefficient 0.904, standard error of prediction ± 0.17197 and the rate constant of the equation in the form of raw score 3.011. The authors predicted health promotion according to the 6 Factors Policy of the elderly as $Y=3.011+.334X_{10}+.470X_{14}+.166X_{12}+.391X_{13}+-.078X_8$. Wellbeing in the elderly should be focus on diabetes and hyperlipidemia using both types of media publications, including sound and audio village tower and newspapers for taking care of themselves and developing appropriate health practices.

Index Terms— Bonding, All Ceramics, Shear bond strength, Light cure

I. INTRODUCTION

Elderly population of the world (60 years) is increasing every year from 10% in year 2543 it 10.4%, 11.1%, 12.3%, 13.6% and 15.0% in year 2548, 2553, 2558, 2563 and 2568 respectively [1].

In the year 2556 the World Health Organization reports the expected average age of the population from newborn for all 193 countries. The highest average expected age were Japan, Singapore ranked 4, the United Kingdom ranked 29, United States ranked 35, and Thailand ranked 76.[2] Compared within the ASEAN community, Thailand rated number one with the elderly population age 65 years of 10%. Thailand has become an aging society since the 2548 as the birth rate of people drastically reduced and the life of people is longer. According to the law of 2546, Thailand defined elderly person as those who is more than 60 years old. In year 2557 Thailand expected to have a total of 10,014,699 elderly people accounted for 14.9% of the total population. and by the year 2568 Thailand will be in an aging society completely with the population aged 60 years or more about 20%. [1] Nakhon Ratchasima province had the average life expectancy of the population during the years 2545 - 2551 in male, mean age 68 years, in female 75 years, which coincided with the average of the country of 70 years in males and 76 years in females [3]

The problem is that increasing rate the elderly mean to be a burden on the working age population or the need for more attention. In the year 2557 a total of 110,000 elderly people will increase to 134,000 people by the year 2561.[2] The health assessment of the elderly found that poor health of 17.3 % from representative population of

1.28 million people. Most of them had vision problems in 57.7 %, hearing problems 14.6 %. and there were problems in the activities of daily living by themselves in 10 %. It was concluded that every 10 elderly people had vision problems in 8 people, hearing problems in 1 people. [4] Annual report of 2556 found that the most common disease in elderly people admitted to hospital were hypertension and diabetes and the proportion of elderly women in services was more than men. They had also found in 51 % of Thai elderly still smoking and drinking with 18 % smoking and 21.5% drinking, male more than women. Mental health found less than normal, it was found that elderly people with high education level had mental health better. Males had better mental health than females. Causes of the mental problems were stress from the anxiety and pressure from the changes of the body to, changes in social roles, loss of the leadership of the family and the loss of a spouse or relatives. [2] Hence the various agencies both the public and private international sectors involved in community planning policy activities for health care. The fund for the elderly (maintenance allowance) public and recreation. The promotion of life quality and psychological status. And the welfare fund run by the community, such as Sakon Nakhon. "Center for the elderly in the community" and Pakpun "ABT.for Elderly". [2] The increasing attention for every sectors for taking care of the elderly population in order to reduce the effect on their health, the country's economy and society.

The Ministry of Public Health proposed the "Power of Health" to enhance the people of Thailand strength by encouraging people with a group health policy and strategy, 6 Factors Policy which comprises of; 1 diet, 2 exercise, 3 emotional, 4 environmental health, 5 without disease 6 refrain from sin acts. Prapant Sootornpagasit, [5] The study of people health behaviors in Wapi Pathum District, Maharakham Province, it was found that people with the knowledge according to the 6 Factors Policy, food was in the highest level and the environmental health at a low level. In terms of relationship found that there was a relationship with knowledge on environmental health and the regular income related to knowledge of biological

medicine. ($p < 0.05$). At the district number 10, Tambon Muan Wai, Nakhon Ratchasima Province, total of 900 (13.99%) elderly people in 6432 population who have a high risk of health behavior compared to other areas in the city the elderly were not working, staying at home with children For this reason, the group researchers of Vongchawalitkul University whose mission is for health services to the society especially on preventive and health promotion conducted a study the influencing health wellbeing in elderly by following 6 Factors Policy. The basic information to staff and health promotion agencies in the area of responsibility of the Health Promoting Hospital. Parish activities to reduce health problems and create the elderly were collected.

II. THE OBJECTIVES OF THIS RESEARCH

1. To study basic demographic data of the elderly for health promoting following 6 Factors Policy

2. To study and create a predictor for health promotion policies of the elderly in the district. 6 muen Wai District, Nakhon Ratchasima province. By using variables gender, age, marital status, education, occupation, source of income, hypertension diabetes, hyperlipidemia, cardiovascular disease, television, radio, newspapers, village audio tower and village health volunteers.

III. EQUIPMENT AND METHODS

This research is to study the factors influencing health wellbeing in the elderly by following 6 Factors Policy in Hmuenwai subdistrict, Muang district, Nakhon Ratchasima province with 286 samples from 900 elderly people calculated the sample size by using the formula applied from Roberto Yamane stratified sampling study using gender as a criterion in choosing a raffle with a list of 9 community groups in the area.

The tools used in this research were questionnaires concerning about their habits.

Part 1 basic demographic data of the elderly include gender, age, marital status, education, sources of revenue per month, sources of information about health disease informations.

Part 2 practical data on wellbeing in the elderly according to the 6 Factors Policy. It was a question of valuation, the answers were categorized in rating scales of 5 levels and criteria for evaluating the levels observed in three levels: good, moderate and poor.[6]

Quality interview behaviors of elderly well-beings behaviors in six policies had the consistency between questions on the purpose of the research was between 0.66 to 1.00, reliability was 0.82

Researchers and research assistants conducted interviews with data collection for a period of two months, November 15, 2557 - January 15, 2558. This research analysis of the data using a statistical analysis program (SPSS version 18).

IV. RESULTS.

The results of this research from interviewing 286 elderly persons.

1. Demographic data

Most elderly in the study were women (65.4 %) ,at the age range of 60-69 years old (61.9%), married (67.8%), jobless (37.4 %), earning from relatives (75.2%), finished elementary school (92.7%). The popular health information was television (55.6%). Chronic diseased reported in 83.9% including hypertension (92%) and diabetes mellitus (58.4%). (Table 1)

Table 1 Demographic Data of the Elderly in Kmuan Wei (N=286)

Basic Data	Number (Persons)	Percent
Sex		
Women	187	65.4
Men	99	34.6
Age		
60-69 years old	177	61.9
70-79 years old	74	25.3
80-89 years old	27	9.2
90> years old	8	2.7
Marital status		
Single	19	6.6

Married	194	67.8
Divorce	73	25.5
Education		
Primary Education	265	92.7
Secondary Education	13	4.5
Bachelor	8	2.7
Occupation		
jobless	107	37.4
Agriculture	102	35.7
General Contractors	60	21.0
Trade	17	5.9
Revenue		
Self	41	14.3
Existing Property	23	8.0
Children	215	75.2
Pension	7	2.4
Health information (Select more than one item)		
Television	159	55.6
Community Radio	124	43.4

Basic Data	Number (Persons)	Percent
Broadcast tower Village	93	34.3
Senior Volunteers	46	16.1
Chronic diseases (Select more than one item)		
Hypertension	263	92.0
Diabetes Mellitus	167	58.4
Cardiovascular Disease	110	38.5

2. Practice about the 6 Factors Policy Health Promotion

The elderly in the study groups had moderately corrected practices about the 6 Factors Policy for health promotion in the community ($\pm 2.77, 2.27$). Table 2 showed details of the practical scores by 6 factors. When considered separately, food had the practice in the medium. ($\pm 3.01, 0.48$), having meals with vegetables as a component in a good level ($\pm 4.07, 0.86$). Environmental health in

the level medium. ($\pm=2.71,0.54$), each item was found to relax with family in the area with fresh air ($\pm=2.81,0.74$). Without sin factor was in medium level ($\pm=2.57,0.56$), smoking when you feel stressed ($\pm=2.63,0.79$). Consideration in all level ($\pm=2.40, 0.55$), each item found it saying to yourself, all the problems solved. ($\pm=2.45, 0.73$) And there were in bad level in eating spicy, sweet, salty. ($\pm=1.80, 0.77$) respectively.

Table 2 Practical Scores for 6 Factors Policy Health Promotion in Ederly at Hmuan Wai

Practical	Number (Persons)	%	\bar{x}	S.D.
High	6	2.09	3.71	0.04
Moderate	193	67.48	2.77	0.27
Low	87	30.41	2.17	0.13

3. Factors Influencing Health Wellbeing in Elderly by Following 6 Factors Policy

There are 5 factors diabetes mellitus (X_8), hyperlipidemia (X_{10}), radio (X_{12}) newspapers (X_{13}) and and village audio tower (X_{14}) had negative aspects found (Table 3)

Influencing health wellbeing in elderly by following 6 Factors Policy, the positive X_{14} (Beta=.559) was significant ($R^2=818$), followed by X_{12} (Beta=.206) significant ($R^2=801$) to health wellbeing following 6 Factors Policy (p-value=.000)

The negative X_{10} (Beta=-.398) was significant ($R^2=791$) to health wellbeing following 6 Factors Policy (p-value=.018) Followed by X_{13} (Beta=-.129) with significant ($R^2=814$) and X_8 (Beta=-.096) with significant ($R^2=647$) to health wellbeing following 6 Factors Policy (p-value=.000) respectively.

The factors gender, age, occupation sources of income, education, marital status and high blood pressure, cardiovascular disease, television and village health volunteers were found to correlate

with that of health wellbeing in elderly by following 6 Factors Policy at Hmuan Wai

Table 3 Influencing Health Well-being in Elderly by Following 6 Factors Policy

Factors	Beta	R	R ²	p-value
X_8	-.096	.804	.646	.018
X_{10}	-.398	.890	.791	.000
X_{12}	.206	.895	.801	.000
X_{13}	-.129	.902	.814	.000
X_{14}	.559	.904	.818	.000

* Significant at the 0.05 level (2-tailed).

From Stepwise multiple regression analysis as follows :

$$\text{Raw score } Y = 3.011 + .334(X_{10}) + .470(X_{14}) + .166(X_{12}) + -.391(X_{13}) + -.078(X_8)$$

Standardized score

$$Z_y = -.398(X_{10}) + .559(X_{14}) + .206(X_{12}) + -.3129(X_{13}) + -.096(X_8)$$

V. DISCUSSION

From the data collected from Hmuan Wei subdistrict, Muang district, Nakhon Ratchasima province, which is rural community of Thailand, the elderly population comprised 900 from (13.99%), most were women (65.4%), at the age of 60-69 (61.9%) which corresponded to the early senility as classified by World Health Organization [13] Most of them were married and lived with spouses or their own children which enhanced the warm and happy life with the families corresponded to the study from Pranom Aokanon [7] who reported that married elderly had more attention than those single one and had higher level of life indices of happiness who reported that married elderly had more attention than those single one and had higher level of life indices of happiness. Most Thai elderly in this age group had the same level of education of elementary school, which corresponded with the study at Banwang subdistrict, Buriram province. Sources of health informations in the study area were mostly

television and the same as from Darunee Boontalert et al [8]. Most elderly had chronic diseases (83.9%) and most common diseases are hypertension and diabetes mellitus which corresponded to most study in Thailand at the same period. The three main chronic diseases as stated by the Fund and Institute of Thai Elderly development (2013) were hypertension, diabetes mellitus and cardiovascular diseases of which etiologic causes were hereditary and life styles. Properly plan for diseases prevention and health promotion are needed for better life of elderly in most area. Considering the 6 Factor Policy health promotion program as a whole, the elderly in the study group had moderate level of knowledge (56.99%), categorized in each factor, without disease factor as hand washing with soap for protection of diarrhea gave the highest score (74.5%) followed by shampooing twice a week (74.5%) and refrain from high fat diet (69.9%) which corresponded with Prapunt Sootornpagasit[5] from Wapeepatum district, Mahasarakam province. Attitudes for the 6 Factor Policy, the study group were in moderate level ($\pm 2.94, 0.31$), they had good at diet and environmental health factors which corresponded to the works of Tharathorn Duangkaew and Hirunya Detudom who found to have good attitudes in dietary factor. This was the outcome of good propagation of health informations via televisions by many government agencies. Practices in 6 Factors Policy in this study had moderate level of evaluation ($\pm = 2.77, 0.27$) corresponded with the works from Virada Attamethakul and Wannee Srivilai[9].

Influencing health wellbeing in elderly by following 6 Factors Policy from Hmuan Wei subdistrict factors were gender, age, occupation sources of income, education, marital status and high blood pressure, cardiovascular disease, television and village health volunteers. The study found that to health wellbeing in elderly by following 6 Factors Policy, there are 5 factors from all 15 factors: diabetes mellitus (X_8), hyperlipidemia (X_{10}), radio (X_{12}), newspapers (X_{13}), and village audio tower (X_{14}). From this study, it was found that diabetes, high blood cholesterol, radio, newspapers

and the broadcast tower in the village have to predict the state of the elderly wellbeing status. No any study were consistent with the results of this study. It can be said that the elderly in the Hmuan Wei subdistrict continue to monitor information from the media voice in their own community rather than other types of media in health care, and the group continued using this medium segment. Most are older people with health problems associated with diabetes and high blood cholesterol. Due to the elderly must take care of their health and continue to work to earn their living, so it is not easy to access other media. Older people had three ways to access to health information, out of 10 people, four people read books, three people listen to radio and eight people watching television. Informations from more than one channel, so it is a good practice to use these media to help in educating and practicing in health for fully coverage four dimensions of happiness: physical, mental, social, and intellectual by using the 6 Factors Policy.

VI. SUGGESTION

1. The recommendations in this study.
 - 1.1. It should be supplied with village tower audio to help in obtaining the health informations in the elderly in the community.
 - 1.2. It should focus on the essence of health promotion of the elderly with diabetes and high blood fat disease in the broadcast media in the local area.
2. Suggestions for further research.
 - 2.1 Behavioral education to create supplement informations apart from sound, radio, television and print media, broadcast tower that affect the health care of the elderly.
 - 2.2 Should study the beliefs and practices of the elderly on information obtained through the medium of sound.
 - 2.3 should study the potential of media and audio media to create a concert-being of the elderly.

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