

SELECTED FACTOR RELATED TO FOOD COMSUMPTION BEHAVIOR AND HEALTH STATUS IN BUDDHIST MONKS WITH NON – COMMUNICABLE DISEASES

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ABSTRACT

The aimed of the research were to study selected factors of food consumption behavior and health status in Buddhist's monk with non-communicable diseases. The population for this study were selected by purposive sampling. The instrument is questionnaire. Data were analyzed by descriptive statistic and Pearson's Product Moment Correlation Coefficient. The result of this study found that food consumption behavior of Buddhist monk when considered by the questionnaire showed that most monks consume healthy and variety food with the highest scores. They usually consume food were cooked from rice, animal, eggs, vegetable, fruit and plant's oil every day. The monks select kind of vegetable and high fiber with low sugar fruit such as guava, apple, and papaya. They drink 6-8 glasses of water. However there are a few of participants perform inappropriate behavior regarding food consumption such as eating half-cooked food or fast food. This result represent most participants have knowledge related to selecting beneficial food. Most participants perceived barrier toward food consumption behavior, Buddhist monks necessary to receive food from people. The monk cannot avoid having food that offer by the Buddhist. The situation and health behavior have significantly positive relationship. ($p < 0.05$).

Keyword–food consumption , Buddhist monk, non-communicable diseases, Health Status

INTRODUCTION

Currently " lifestyle" disease or non-communicable diseases (NCDs) represent the largest cause of mortality in the Thai population more than infection diseases.[1] Top five of NCDs in Thailand are cancer, stroke ischemic heart disease, diabetes mellitus and hypertension. This situation was really interesting because the patients with NCDs can refer to chronic diseases which last for long periods of time and progress slowly. The significant consequences of NCDs are long life caring, Sometimes, NCDs result in non-rapid deaths such as seen in certain diseases but NCDs can be caused of economic problem from therapeutic course, risk to complicated disease. [2] Such as patient with diabetes mellitus who develop long-term complications epically diabetes ulcer, they have to enface with burden lifestyle and economic effect from high course of disease management.

Lifestyle disease or NCDs emerge not only in the normal population but also in the Buddhist monks.[3]Information from health status survey in 11 provinces in Thailand indicated that 45.1% of Buddhist monks were either overweight or obese. This group being high risk to develop chronic disease such as hypertension (10.2%), diabetes mellitus (6.5%) and hyperlipidemia (1.2%) [14]

The major causes of NCDs [5],[6]

1. 76% of Thai population consume high fiber diet (vegetable and fruit) less than recommended daily dietary allowances for healthy.
2. Thai population consume salty or sweet foods over than recommended daily dietary allowances for healthy.

3. The statistic information of smoke behavior in Thais over 15 years population among 2008-2009 was 12 million population and alcohol consumption were as 23 million. In past of decade Thai population increase the number of new smokers and alcohol consumer over than twofold.
4. The statistic information of pediatric and adult with overweight among 2008-2009 were 1.6 million and 17.6 million population, respectively. Increasing of weight loss pill user was 5.5fold so high risk to develop lifestyle disease or non-communicable diseases
5. Lacking of physical exercise

Moreover, the group of population who face a non-communicable diseases is the Buddhist monks. From existing study since November 2008 to 4 February 2009 presented the number of 98,561 Buddhist priest (30%) was healthy. The study found 55% of Buddhist monks population high risk to hypertension, hyperlipidemia and diabetes mellitus, around 40% developed over 1 disease. The most significant, from all Buddhist monk population, founded 5,381 of monks (5%) were either overweight or obese.[3] This information indicate un-healthy food consumption behavior was the major cause of illness. And also the typical lifestyle in consuming salty or sweet foods over than recommended daily dietary allowances for healthy. Including the behavior of smoking and alcohol consumption can be the causes of illness as well.[9] The limitation of opportunistic selection kind of good by themselves due to ecclesiastical mission. Buddhist monk necessary to receive food from people. The monk cannot avoid having food that offer by the Buddhist. So behavior of people in the community to adopt appropriate buying and cooking of healthy food to donate to the monks was necessary.[11] From the studied factor related nutrition consumption behaviors of the Buddhist monks and foodstuff dedication Behaviors in Pasi Charoen district, Bangkok. Result demonstrated foodstuff dedication Behaviors of people were as, most people buy cooked food from fresh market or shop because of convenience. Cooked food typically has sweet tasted and always use coconut milk in the main ingredients. Most foodstuff that the people select to dedication were cooked by fried. Not only food consumption behavior but also daily lifestyle behavior in lacking of work out of Buddhist monks is the barrier and cause of risk to illness, especially NCDs. Heath behavior regarding nutrition is significant to Buddhist monk's daily life.[15],[16] Due to malnutrition may be the factor related to poor prognosis of illness, effect to the monk's health status. And can be the cause of poor quality of life among Buddhist monks, effect to reduce intensity and concentration to study Buddha's principle.

Presently, there are various strategies and campaign for Buddhist monks that have been used to gain knowledge regarding behavior adaptation to prevent illness such as promoting health behavior by consume healthy food, promote daily routine work out, avoid smoking and avoid alcohol consumption. But the number of illness's monks who were admitted in hospital still rising up continuously. And non-communicable diseases is the highest peak. According to significance of food consumption behavior and monk's health status leading the researcher study selected factors related to food consumption behavior and health status in Buddhist monks with non-communicable diseases. Aim to use the result for initiate health management system for Buddhist monks.

OBJECTIVE

To study food consumption behavior and health status in Buddhist monks with non-communicable diseases and study selected factors related to food consumption behavior and health status in Buddhist monks with non-communicable diseases.

METHODOLOGY

This study based on descriptive correlational research design to study food consumption behavior and relationship among selected factors in Buddhist's monk with non-communicable diseases.

Population and Sampling: The population of this study comprised the monks who admitted at Priest hospital, Bangkok. The sample was purposive sampling. The participants who were meet the inclusion criteria and consents to participate in this study according to the following inclusion criteria for the sample group: The Buddhist monk with communicable diseases, Consents to participate in this study.

Research Instruments: The instrument used for this research is the questionnaire with developed by the researchers follow the review of literature and relevant studies: according to the following details.

1. *Instrument were develop by researcher for collecting quantitative data*
 - Demographic data of participants
 - Food consumption behavior and health status questionnaires (5 rating scales)
2. *Instrument for evaluate selected factors related to health behavior based on Pender's health promotion theory in 2 issues[9]*
 - Perceived barrier in performing health behavior questionnaire was develop by researcher based on Pender's health promotion and literature review. Consist of 12 negative way questions with 5 rating scales[7]
 - Perceived effect of situation promoting health behavior questionnaire was develop by researcher based on Pender's health promotion and literature review. Consist of 12 questions with 5 rating scales[8]

Data analysis: The researcher collected and analyzed data by using a computer program as follows:

1. General information for the sample group was analyzed by use of descriptive statistics i.e. distribution of frequency, percentage, mean, range, standard deviation.
2. The data regarding health behavior was analyzed by use mean and standard deviation.
3. Selected factors related to health behavior perceived barrier and perceived effect of situation promoting health behavior was analyzed by use mean and standard deviation.
4. Correlation between perceived barrier and health behavior, perceived effect of situation and health behavior were analyzed by use Peason's Product Moment Correlation Coefficient.

RESULTS

The result were present as following: Demographic data of Buddhist monks: The social characteristics for the population in the sample group for this study revealed the most age between 71-80 years with 22 monks (39.9%) were sick. There are 34 monks over 15 years in priest (60.7%). The most educational level was primary school were 37 monks (39.3%). 49 participant were graduate dharma scholar (87.55%). All participant have chronic disease. There are 33 participant prefer natural taste food (58.9%). The resource of getting daily food was receive food from people (50 participant, 89.3%). And 55 participant perceive the information regarding healthy food consumption behavior (98%) and food consumption behavior of Buddhist monk when considered by the questionnaire showed that most monks consume healthy and variety food with the highest scores. They usually consume food were cooked from rice, animal, eggs, vegetable, fruit and plant's oil every day. The monks select kind of vegetable and high fiber with low sugar fruit such as guava, apple, and papaya. They drink 6-8 glasses of water. However there are a few of participants perform inappropriate behavior regarding food consumption such as eating half-cooked food or fast food. Perceived barrier in performing health behavior : Buddhist monk necessary to receive food from people. Although the monk have enough knowledge in health behavior but they cannot avoid having food that offer by the Buddhist. Perceived effect of situation related to health behavior, the result indicate the participant ate more food than normally in special Buddhist occasion. Although some of participant tense to avoid unhealthy food that received from people but just partly avoidance. Because of the religion believed in to make a merited.

DISCUSSION

Food consumption behavior and health status in Buddhist monks

The result were as, food consumption behavior of Buddhist monk when considered by the questionnaire showed that most monks consume healthy and variety food with the highest scores. They usually consume food were cooked from rice, animal, eggs, vegetable, fruit and plant's oil every week. The monks select kind of vegetable and high fiber with low sugar fruit such as guava, apple, and papaya. The result present the level of food consumption behavior in moderate to high level reflect good knowledge regarding selection of food and health promotion behavior. However due to limitation in opportunistic selection of food in this population, effect to food consumption behavior also. This result relevant to the study of Suppalak Thanadhammatit(2008) [12], who surveyed health care behavior of Buddhist monk in Ubonrachathanee province. They found the effect of inappropriate consumption behavior such as ate more sweet or salty food, the food that coconut milk was used as the main ingredient or food were cooked by fried, and all of this can be caused NCDs. One of four participant were develop chronic disease, the highest peak were hypertension and diabetes mellitus. Relevant to the survey research of National statistical office about health care behavior in Thai population 2009[13], found the population in Bangkok have cooking style using cooked oil over than any other part of Thailand. So this is the cause of NCDs.

The analysis of between perceived barrier and health behavior, perceived effect of situation and health behavior

Perceive benefit of food consumption and benefit of food that offer by people has positive correlation to food consumption behavior. [4],[10] The Buddhist monk need to have 2 meals a day and to receive food from people. The monk cannot avoid having food that offer by the Buddhist. In addition, the Buddha had defined disciplines as practical guidelines for food diet of Buddhist monks. However the monk can avoid inappropriate food aim to reduce risk to illness.

The correlation between perceived barrier and health behavior, perceived effect of situation and health behavior. The study propose perceived barrier were not correlate to food consumption behavior. But perceived effect of situation has positive correlation to food consumption behavior at a statistically significant level ($p < 0.05$)

RECOMMENDATION

Health care teams and community should provide specific programs to promote perceived benefit for foodstuff dedication and to reduce perceived benefit in the Buddhist monks in order to change their consumption behaviors. And health care provider should encouraging people in the community to adopt appropriate buying and cooking of healthy food to donate to the monks.

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THE STUDY OF DAILY FOOD CONSUMPTION AND NUTRITIONAL STATUS OF SCHOOL-AGE IN SAMUT SONGKHRAM PROVINCE

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ABSTRACT

This survey research aimed to study of daily food consumption, nutritional status of school-age children in Samut Songkhram Province. The sample size was 400 elementary students aged 8-12 years that estimate by Yamane table and randomly selected by multi-stage random sampling method was use from 3 districts (Mueang, Bang Khonthi, Amphawa). Sample 240 were collected from main district, 80 sample of Bang khonthi district, and 80 sample of Amphawa district. Inside of physical growth determined by measuring the body weight and height then evaluate the level of nutrition status of students by reference of growth chart by the Ministry of Health. Collected behavior of food consumption by questionnaire was 0.760 of reliability test. Data analysis by descriptive statistics (percentage, mean, and standard deviation) was use.

The result show daily of food consumption was good level ($\bar{x} = 3.13$, S.D. 0.736). Inside of nutritional status found 74.50% of samples were normal nutritional status. Being underweight were 10.30% of samples, underweight were 7.80% of samples, plump were 5.00% of samples and 2.30% of samples were being obese, only 0.30% were obese.

Keyword–Behavior of Food Consumption, Nutritional Status, School-age children.

INTRODUCTION

Thailand economy has developed so much that leads to changes in food consumption behavior. There is also a tremendous change in food production, food processing, food distribution and food marketing. These changes affect the behavior of food consumption of school-age children, adolescents, and adults. Presently, dietary energy is received mainly from animal fat, saturated fat, and sugar. There is also an increased to eat meat with high cholesterol. Whereas, decreasing to eat complex carbohydrates, fiber from vegetables and fruits. In addition to changing behaviors of food consumption there are also a change in recreational activities, exercises has been replaced by televisions. Children often spend many hours in front of television or smart phone. Moreover, there are economic and social factors that affect to behavior of food consumption. The World Health Organization [22] revealed that there were several important factors that affect to behavior of food consumption such as salary, products, passion, beliefs, traditions, culture and environment. These factors were associated with the general population and finally merged into the behavior of the people. Obesity in children results from an energy imbalance, which involves eating an excess of calories and not getting enough physical activity. There are many risk factors that contribute to obesity such as genetic and behavioral factors [7], [8]. Thailand, obesity in Thai children has doubled in the past two decades. There have been several surveys and studies on overweight and obese children in Thailand. Data from two consecutive National Health Examination Surveys (NHES) have shown an increase, from 5.80% in 1997 to 7.90% in 2001, for overweight and obesity in pre-school children. There were increasing 36.00% within five years using the reference of the Thai growth grid of child weight for the height norms for each gender [3]. The Department of Health, the Ministry of Health [4] in 1983 reported that there is a prevalence of protein and energy deficiency in the school levels of 35.66 percent for level one deficiency, 13.00 percent for level two deficiency and 2.13

percent for level three deficiencies respectively. In the year 1998, was 8.48 percent, 0.58 percent, 0.00 percent respectively. For the problem of obesity, the rate increased in all age groups during the years 1987 to 1996, in 2003, 2004 surveyed the nutritional status of 16,382 primary school students across the country 2003 and 9,585 students in 2004 showed overweight or obese students were 7.90 percent in 2003 increased to 9.70 percent in 2004. In 2010 Rerksuppaphol and Rerksuppaphol [16] studied obesity in Thai school children in suburban Bangkok and found that there were 12.80% overweight and 9.40% obese children. The Office of the National Economic and Social Development Board [14] set a rule of thumb that a student population with 10.00 percent obesity should be considered an imminent problem. Ministry of Education [13] had to provide knowledge of food and nutrition in the curriculum of students from grades 3 to 6. The aim was to provide students with knowledge, values, survival guides, solution to improve their lives as well as their health environment. Instructions offered many skills to prepare Thai people to be able to think, to solve nutrition problems, and to enhance the quality of their lives. It is vital to create value and attitude that will enhance the ability to eat the right things and in the right proportion. It is important to teach students to have a habit of eating right and to promote it to be a desirable value for students at all ages. Poor behavior of food consumption among school-age is a major problem in Thailand. This is because there are many conditions affecting of nutrition. Behavior of food consumption affects the health status of individual in the future so it was decided imperative time to prevent poor nutrition. The College of Nursing and Health of Rajabhat Suansununtha University has the academic mission to improve quality of life of Thai people who have health problem based on poor behavior of food consumption then we conducted to study the behavior food consumption among school-age children grade 3-6 that growth to well-being adult in the future at Samutsongkhram Province, Thailand.

OBJECTIVE

This survey research aimed to study of daily food consumption, nutritional status of school-age children in Samutsongkhram Province.

METHODOLOGY

This survey research aimed to study of daily food consumption, nutritional status of school-age children in Samutsongkhram Province., Thailand. The sample size of 400 was elementary students grade 3-6 calculated by Yamane that use the multi-stage random sampling method, 240 students from Muang district, 80 students from Bangkolthee district and 80 students from Ampawa. Instruments used to collect data: Inside of physical growth determined by measuring the body weight and height then evaluate the level of nutrition status of students by reference of growth chart by the Ministry of Health. Questionnaire was use to Collecting data about daily of food consumption that tested reliability was 0.76. Data analyze to use descriptive statistics (percentage, mean, and standard deviation).

RESULTS

The results of the study can be summarized as the followings. The research sample showed age of students between 8 to 12 years old, 218 persons were male (54.40%) and 182 persons (45.60%) were female. About 254 persons lived with their parents (63.50%), 43 persons (10.80%) lived with a single mother. About 256 persons (64.00%) received their allowance about 20-30 baht per day and 115 persons (28.80%) received their allowance less than 20 baht per day. Inside of food preparation and food consumption, the findings revealed that about 303 persons (75.80%) by their parents or adult at home prepare food for them to consume every day, 68 persons (17.00%) by their parents or adult at home prepare food for them at least 2-3 days a week, 20 persons (4.90%) by their parents or adult at home to buy food items every day, 9 persons (2.30%) their

parents or adult at home take the students to eat out side about (table I). Part of behavior to buy snack and sweet found, 217 persons (54.30%) often to buy snack and sweet in the neighborhood near their house, 121 persons (30.30%) often to buy snacks and sweets in school area, 48 persons (12.00%) buy at convenience store, 14 persons (3.60%) their parent or adult at home buy snacks and sweets for them (table II). In another hand problems behavior of food consumption to showed in table IV: (60.80%) often to drink soft drinks at least 3 to 4 times a week, (56.30%) eat sweet food, (38.80%) eat snacks after a meal at 5-7 time a week. In terms of eating all five groups of food, (45.50%) eat a variety of food every week, (34.30%) eating fiber food at least 3 to 4 times a week, eat fish at least one meal a day about 1-2 times a week, (23.00%) eat lean meat 3-4 times a week and 5-7 times a week, (43.50%) eat food that steamed, oiled, baked, roughly 1-2 times a week and avoid to eaten food that contains starch and sugar 5-7 times a week (9.50%), (40.30%) eat low salt diet; don't add sauce and salt in food, (37.30%) eat more than three meals a day. In terms of drinking milk, (31.50%) drank milk at least 1 - 2 glasses a day for 5 to 7 days a week. Moreover, (42.80%) often go to bed right after the supper. However, that found behavior of food consumption was ($x = 3.13$, $S.D. = 0.736$).

The result of the nutritional status showed in table III to found 298 persons (74.50%) were considered normal, 41 persons (10.30%) were in the thin category, 31 persons (7.80%) were underweight, 20 persons (5.00%) were plump, 9 persons (2.30%) were overweight, only 1 person (0.30%) were categorized as obese level.

TABLE I
THE FREQUENCY, PERCENTAGE FOR FOOD PREPARATION

FOOD PREPARATION	FREQUENCY (n)	PERCENTAGE
Parents or adult at home prepare are food for them every day	303	75.80
Parents or adult at home prepare food for them at least 2-3 days per week	68	17.00
Parents or adult at home to buy food items every day	20	4.90
Parents or adult at home take the students to eat out side	9	2.30
Total	400	100.00

TABLE II
THE FREQUENCY, PERCENTAGE FOR BEHAVIOR TO BUY SNACKS AND SWEETS

BEHAVIOR TO BUY SNACKS AND SWEETS	FREQUENCY (n)	PERCENTAGE
Neighborhood near their house	217	54.30
In School area	121	30.30
Convenience store out side school	48	12.00
Their parent or adult at home buy snacks and sweets for them	14	3.60
Total	400	100.00

TABLE III
THE FREQUENCY, PERCENTAGE, MEAN AND STANDARD DEVIATION BY A HIGH LEVEL COMPARED TO THE WEIGHT

NUTRITIONAL STATUS	FREQUENCY (n)	PERCENTAGE
Obese	1	0.33
Overweight	9	2.30
Plump	20	5.00
Normal	298	74.50
Underweight	31	7.80
Thin	41	10.30
Total	400	100.00

TABLE IV
THE FREQUENCY, PERCENTAGE ABOUT THE PROBLEM OF BEHAVIOR FOOD CONSUMPTION

PROBLEM OF FOOD CONSUMTION BEHAVIOR	FREQUENCY (n)	PERCENTAGE
Drink soft drinks at least 3 to 4 times per week	243	60.80
Eat sweets food at least 3-4 time per week	225	56.30
Have snacks after a meal at 5 to 7 times per week	155	38.80
Have snacks at least 3 to 4 times per week	164	41.10
Eat a variety of food every week	66	16.50
Eating fiber food at 5 to 7 times per week	107	26.80
Eat all five groups of food at 5 to 7 times per week	66	16.50
Drink milk at least 1 - 2 glasses per day for 5 to 7 days per week	126	31.50
Go to bed right after the supper	171	42.80
Eat junk food at least 3 to 4 times per week	173	43.30
Eat low salt diet; don't add sauce and salt in food at 5 to 7 times per week	48	12.00
Eat more than three meals a day at least 3 to 4 times per week	149	37.30
Fat consumption at least 3 to 4 times per week	198	49.50
Eat too much at least 3 to 4 times per week	185	46.30
Eat too fast in the short period of time at least 3 to 4 times per week	187	46.80
Eat fish at least one meal a day about 1-2 times per week	168	42.00
Eat lean meat 3-4 times a week Eat lean meat at 5 to 7 times per week	92	23.00
Eat food that steamed, oiled, baked, roughly 1-2 times per week	174	43.50
Avoid to eaten food that contains starch and sugar 5-7 times per week	38	9.50

CONCLUSION AND FUTURE WORK

This study was significant; students in the province, mainly in consumer behavior overall was good than growth status of students in the province were in the normal range. This may be the students spend much time at the school, five days a week. However, they had their breakfast and dinner at home with parents who took care of the food and cooking. Lunch was served at the school. Within the school areas, there were no soft drinks, and candy bar stands. Which based on the hypothesis of Bandura [1], supporting factor for food behavior is the actual access to the service. The other important factor is family food consumption behavior which has a direct effect to students' nutritional status but there were some issues that could be resolved because which could be a factor leading to the change of the level of growth in the direction of having overweight in the future. Although, found obesity less than 10 percent [4] because there factor effect to growth status to obesity towards [2] and increase risk factor for many diseases and major health complication probably because the knowledge factor or the attitude of the students or SES (Socioeconomic status) factors that relationship to obesity. There are three main suggestions from this study. First, since the students spend five days a week in school and had lunch at the school, teachers are the source of their nutrition knowledge. Also, their obesity was associated with their dietary habits such as flour and sugar. Fried foods, sweets, and soft drinks for children were easily accessed at the local stores around the school. Therefore, teachers and the administrators in the school should play a more active role to teach students about the right things to eat and the right amount to eat. Second, for students have enough money and freedom to choose to buy any snack and food for themselves, knowledge should be provided to them to understand the costs and the benefits of their decisions. Third, there is a need to educate both students and parents. Since the majority of students have both breakfast and supper at home and the parent is the one who prepares the food. Therefore, there is a need to educate the parents about proper food consumption and food preparation. As a matter of fact, it is important to create a training program that prepares the school, parents, caregivers students a nutritional understanding. The future research in this area should compare the knowledge and food consumption behaviors of the group's parents and guardians as well as study food consumption behavior of abnormal growth groups with the object to develop a health training program to improve food consumption behavior. Therefore, prevention and correction of obesity in early childhood is important and beneficial to the children, family, community and Country because of childhood obesity is strongly associated with risk factors for cardiovascular disease, hypertension, diabetes, orthopedic problems, and mental disorders. Obese children have a high risk of psychological problems such as depression, low self-esteem and quality of life compared to their peers [5] [13] [14]. Therefore, prevention and correction of obesity in early childhood is important and beneficial to the children, family, community and Country.

Which should be studied over the next edit to plan and adjust to the lifestyle modification scheme can reduce the level of sugar in the blood stream.

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THE ASSERTIVE, UNINHIBITED INDIAN WOMAN: RECENT BOLLYWOOD MOVIES SAY IT ALL

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ABSTRACT

The rights and equality of women in India are secured and ensured by the Constitution of India. It is a country which worships deities like Durga and Kali, the emblems of power. However, it is ironical that the National Crime Records Bureau exposes the shocking data of a crime committed against an Indian woman every 3 minutes, a woman raped every 29 minutes, a dowry death every 77 minutes and the case of torture unleashed by husband or relatives of him every 9 minutes. This bespeaks the socio-cultural scenario of the essentially patriarchal society and the mindset of the people for whom women should conform to set social codes and norms. : "In India, motherhood, wifehood, domesticity, marriage, chastity, purity, and self-sacrifice constitute the primary features of normative sexuality" (Kapur "Erotic Justice: Law and the New Politics of Postcolonialism") If she fails to abide by the set behavioural pattern then the society does not hesitate to categorize her as per its own choice.

Bollywood, the biggest cinema industry of India, is a reflection of India's socio-cultural perspectives. It has been mostly comfortable to portray the heroine as docile and sacrificial abiding by the dictates of the society. If not, then she is delineated as the vamp, the evil woman. However, a rebellion has recently occurred in Bollywood where women are projected to be vocal about their rights, uninhibited about their choices to lead lives as per their own desires which might not conform to the conventional social codes. They are comfortable to assert their sexual preferences (a strict taboo in Indian context) and are assertive about their rights on their own bodies. Certain recent Bollywood movies like 'Pink' and 'Dear Zindagi' are commendable to deal with such women and raise pertinent questions about the rights and position of women in Indian society. This paper is an attempt to analyze these movies and seek answers to those questions, the answers to which are enmeshed in the socio-cultural milieu of contemporary India.

Keyword: Bollywood, Patriarchy, Women

INTRODUCTION

1.1 Introduction

The 2012 Reuters Report ranking India as the worst among the G 20 countries for a woman to reside (<http://in.reuters.com/article/g20-women-idINDEE85C00420120613>) and the shocking rate of domestic violence in India are alarming enough to probe into the social reality and position of woman in the Indian socio-cultural perspective. Gulshan Rehman, Health Programme Development Adviser at Save the Children UK and one of those who polled at the global poll in London before the G20 summit held in Mexico in June 2012, exclaimed: "In India, women and girls continue to be sold as chattels, married off as young as 10, burned alive as a result of dowry-related disputes and young girls exploited and abused as domestic slave labour" (<http://in.reuters.com/article/g20-women-idINDEE85C00420120613>). The National Crime Records Bureau exposes the shocking data of crime committed against an Indian woman every 3 minutes, a woman raped every 29 minutes, a dowry death every 77 minutes and case of torture unleashed upon a woman by her husband or relatives of him every 9 minutes (https://en.wikipedia.org/wiki/Women_in_India). This gruesome

reality is sharply antithetical to the fact that India is a country which worships female deities like Durga and Kali (emblem of power and destruction of all evils). In fact a tracing of the position of women as far as Indian social history is concerned provides conflicting realities. While, on the one hand, the Constitution of India secures the rights of women and ensures equality, dignity and freedom of women from any sort of discrimination, there are, on the other hand, glaring instances of female foeticide, honour killing, domestic violence, dowry deaths, rape, girl child trafficking, marital rape, acid throwing and accusations of witchcraft.

The Imrana Rape Case where a Muslim girl was raped by her father-in-law and the Muslim clerics passed the verdict that Imrana should get married to that rapist (https://en.wikipedia.org/wiki/Imrana_rape_case) is only one instance of the horror that uncountable Indian women live in day in and day out. The lack of educational facilities, discrimination regarding privileges given to boys in a family in comparison to girls and the inhibition among women to protest against male hegemony make situations even more difficult for Indian women. This inhibition is the outcome of the patriarchal social code in which a girl is trained to be docile, submissive and sacrificial since childhood. Society implants these attributes among the psyche of girls since childhood so deeply that in most of the cases even after attaining adulthood the Indian women prefer to bear all atrocities at home and outside silently. This is one of the most prominent reasons that most of the sexual harassment cases against women remain unreported and several of the issues unaddressed in Indian social scenario.

Patriarchy views women as vicious: "It is the nature of women to seduce men in this world; for that reason the wise are never unguarded in the company of females" (<http://nirmukta.com/2011/08/27/the-status-of-women-as-depicted-by-manu-in-the-manusmriti/>). Since its inception patriarchy has laid down certain rules and norms for women and it is expected that women should abide by them. "Gender construction in India has its roots in Sita's *agnipariksha*, Draupadi's *chirharan* and Damayanti's adherence to the *pativrata* code" (Jain, "Indigenous Roots of Feminism: Culture, Subjectivity and Agency") If a woman refuses to follow the set social dictates then society does not hesitate a moment to give her names and assassinate her character. Non-conformity to social codes is considered an offence for women in Indian society, a society which prefers a woman to be sacrificial, chaste and submissive.

Cinema being a social phenomenon is an important tool to understand social changes and developments. It is an extension of the mind of people. "Cinema can't function in isolation. It's a reflection of society". (<http://www.hindustantimes.com/bollywood/women-s-day-how-feminism-changed-the-father-figures-in-indian-cinema/story-HIZUWHipqurzg34zcQOUCL.html>). It is a "medium that reflects the true mood and the changing scenario or rather reality of the society that produces it" (<https://www.ukessays.com/essays/film-studies/representation-of-women-in-hindi-cinema-film-studies-essay.php>)

Bollywood, the largest cinema industry of India, is a reflection of the country's socio-cultural perspectives. It has "expressed the changing scenarios of modern India to an extent that no preceding art form could ever achieve" (http://shodhganga.inflibnet.ac.in/bitstream/10603/22634/10/10_chapter_4.pdf). A study of the depiction of women in Bollywood provides us insights into the patrilineal mindset of the society itself and gives us clues to the changes, if any, in the psyche and position of Indian woman through an analysis of contemporary movies. Bollywood, catering to the mass, has always preferred to portray women as "decorative objects" who have "played stereotypical roles... wearing big bouffant hairdos ... and dance around trees with him (hero)" (<https://oorvazifilmeducation.wordpress.com/2010/10/08/interview-with-shoma-chatterji-role-of-women-in-indian-cinema/>). The heroine has always been the epitome of virtue upholding all the values of Indian culture worshipping her male counterpart as a deity. In the earlier Hindi movies if a woman had to

be portrayed as going against social codes of conduct then she could definitely not be the heroine; she had to be the vamp, the symbol of all vices as opposed to the chaste and virtuous heroine. So either a woman has to be the upholder of patriarchal norms or else she is categorized as the evil woman. The hero's obvious choice has to be the ideal woman, the heroine as his wife. This ideal woman has always been delineated to be delicate and dependent on the hero who has zealously protected her as a possession adorning her house. Women have been hardly portrayed as working except in dire needs like "the inability of man to earn due to medical reasoning, sudden demise, psychological problems or immaturity" (http://www.academia.edu/21277183/Indian_Cinema_and_Gender_Roles) and not because she has chosen to. These movies thrived by "legitimizing mild sexual aggression by men and idealizing submission in women" (<http://www.theglobaljournal.net/group/gender-issues/article/1046/>). Heroines in Bollywood have mostly been flat characters without any assertion of own desires and identities. A few exceptions in earlier movies were the depiction of and "survivor woman" (http://ijariie.com/AdminUploadPdf/Indian_Cinema_and_Women_ijariie1615.pdf), the righteous protagonist of *Mother India* who did not hesitate to kill her own son for the sake of her principles and thus attained universal motherhood transcending her personal level or Rosie in *Guide* who was bold enough to choose her heart and go against social dictates.

LITERATURE

1.2 Literature and Theory:

Women characters in Hindi cinema have travelled a long distance from the stereotypical sati-savitri (pure and dedicated) or victim image as society preferred to see them as to bold and assertive characters conscious about their own priorities of life. Today's women characters are multi-dimensional throbbing and pulsating with the zest for life. She can be fearless as Janki in *Lajja* (2001), a role model for several young dreamers like Mary Kom in the movie bearing the same title (2014), a gutsy journalist focussed on her job despite all obstacle that come her way as Meera in *No One Killed Jessica* (2011) or Rani, the girl-next-door who refuses to be broken-hearted after being refused to be married by her fiancé and transforms into a confident woman who goes for her honeymoon alone in search of her own identity in *Queen* (2013). Directors like Kalpani Lajmi, Deepa Mehta, Aparna Sen, Rituparna Ghosh are a few who have been vocal about women's issues, tried to explore "women's status and social roles" (<http://theindianeconomist.com/women-lens-gender-notions-bollywood/>) and showed enough courage to bring women out of the age-old confines of social rigours. Today's protagonists are bold to voice their opinions and assert their sexual preference (a strict taboo in Indian context) and speak about their rights on their own bodies. Tamil film star Khusboo got entangled in a "huge national controversy for saying at an AIDS awareness meet that she did not think there was anything wrong with premarital sex as long as it was safe" (http://www.india-seminar.com/2008/583/583_brinda_bose.htm). They are not ready to bear humiliations and afflictions; rather they emerge as New Women confident and proud of their womanhood and in love with themselves. Two recent Bollywood movies 'Dear Zindagi' and 'Pink' are commendable to delineate such women and raise pertinent questions about the rights and position of women in the Indian society.

1.2.1 'Dear Zindagi': An Analysis

'Dear Zindagi' is a Gauri Shinde movie that was released in 2016. The story-line revolves around Kaira, a pretty young cinematographer who is frustrated with her life, uncomfortable with every emotional relation that she gets involved in and meets Dr Jehangir Khan, an unconventional psychologist, interaction with whom gives her a fresh lease of life. The delineation of several crises faced by Kaira actually refers to the

harrowing experiences of independent working women in the Indian society. Mumbai, the financial capital and one of the fashion destinations of the country is the working place of Kaira where her landlord decides to throw her out of home because she is a single woman and the building association has decided to give the apartment on rent to married couples. Thus Kaira is turned roofless. Shinde has addressed this plight which is the trouble faced by several young Indian women who pursue their careers staying in places away from their homes. Our society is yet not comfortable with women living independently away from the governance of patriarchy.

Having nowhere to live in Mumbai Kaira is compelled to shift to Goa to reside with her parents. This is strenuous enough for Kaira as her relationship with her parents is strained enough. In the meantime the audience shares her pain of being completely at a loss as how to handle life because of the failure of her romantic associations. The day she comes to know about Raghuvendra, a film producer for whom she has broken up her earlier relation getting engaged with someone else, she starts biting chillies in order to conceal her tears. She is not the weakling, as earlier portrayed in Indian cinema, who would cry her heart out in front of everybody. Rather Kaira suffers inside and passes sleepless nights. This insomnia becomes so acute that during her visit to Goa when she overhears Dr. Khan's deliverance at a conference she feels like going to him to seek help. During this time she gets close with a musician Roomi but eventually gets separated. It is through her discussion with Khan that she starts opening up and giving expression to the complexities latent in her heart for years. It was the trauma faced by her during her childhood when she was deserted by her parents for career abroad that haunts her till now. It is this trauma that forbids her from getting serious about any emotional ties for the fear of being left alone. Regular counselling by Dr Khan not only helps Kaira gain in confidence about herself but also helps the director address issues faced by the New Woman of contemporary India. Kaira confesses to Khan that even when she manages to sleep she suffers from nightmares where she sees herself falling into a ditch from a multi-storeyed building and married women pointing at her and smiling sarcastically. While discussing this with Khan she herself explains that these married women are the representatives of the society which considers her to be dirty and promiscuous because of her multiple relations. Very truly this is the mindset of the Indian society however progressive it claims to be. It judges a woman's character based on certain set social protocols, non-conformity with which makes her filthy. It is this attitude of the society that torments the subconscious of Kaira. However, Khan with his professional expertise and essential humanity helps Kaira come out of this deeming self-estimation by using the metaphor of a chair. He explains that just as before buying the most suitable chair we try several out similarly in order to search for the perfect life partner, delving into multiple relations is not at all unjustified. He explains that she should come out of her guilt regarding this. This explanation helps Kaira overcome emotional vulnerability and gain self-esteem. Finally coming out of all dilemma and sense of inferiority she accepts herself as she is and makes a documentary on Dona Maria, a soldier of the Portugese army, who though initially fights in the disguise of a man, ultimately musters enough confidence to come out as her own self to fight against the enemy. This fight is Kaira's own struggle against all her apprehensions and crises which are the products of society's double standards regarding women. And she emerges triumphant just as Dona. The beauty of Shinde's insightful handling of Kaira's character is that there is no moralizing and no categorization whatsoever. Kaira is presented as an uninhibited self who emerges strong enough breaking social conventions and fully in love with her own self. There is no endeavour to change her to suit the social ethos. This kind of portrayal is daring enough because it is a character which does not abide by the conventional social codes, is far away from the coy, docile, submissive Indian woman that society is comfortable with.

1.2.2 **Pink: An Analysis**

Society's comfort is put at a real toss by another recent movie 'Pink' directed by Aniruddha Roy Chowdhury and released in 2016. The movie has ripped apart all the social facades and put to question the patriarchal bent of mind. It is a movie that is extremely pertinent in contemporary Indian context and is a kind of blow to the male hegemony which considers woman to be its property. It also questions the audacity of the society to judge a woman on the basis of her clothes and liberal attitude towards life. The story revolves around Meenal and two of her friends who are careerist, independent young girls sharing an apartment in South Delhi. The opening scene of the movie depicts a tense atmosphere where these three girls are huddled together in a cab and hastily come back home while two boys rush their friend Rajveer to a hospital to get his forehead injury treated. This is followed by a series of threats from Rajveer's friends, Rajveer having strong connections in the social circle due to his uncle's political background. Situation worsens as Meenal's friend Falak's photograph is morphed obscenely and circulated in her office while Andrea, another friend of Meenal, is chased by Rajveer's gang. Threatening phone calls come to their landlord so that these girls are evicted from their house. Meenal is kidnapped, molested in a moving car and thrown out at night completely devastated. Next day a case is framed and Meenal is arrested on the charge of an attempt to murder Rajveer who labelled these girls as prostitutes. Deepak Sehgal, a veteran lawyer and neighbour of these girls, takes up the case when the girls are utterly baffled to understand the next course of action. It is unfolded in the trial room that Meenal and her friends met Rajveer's gang at a rock concert and after becoming friendly with them (through a common friend) agreed to go to a private resort to have dinner. During their stay there the girls accepted drinks when offered by the boys. Rajveer's lawyer narrates his version of the incident that after drinking the girls tried to provoke these boys and demanded money (indicating that they were prostitutes), the refusal to which infuriated them and Meenal hit Rajveer with a bottle leading to serious injuries. But the actual incident is somewhat different. The girls were forced to come to a compromising position and even after her refusal Rajveer compelled Meenal against her will. Deepak, the lawyer, asks emphatically what Meenal said at that point of time and it is revealed that she said "No". During the heated exchange of words Rajveer spells out the attitude of every male chauvinist that these kinds of girls should be treated in this way. By "these kinds of girls" Rajveer meant those who are independent, prefer to stay away from home for their careers, choose clothes as per their own comfort, booze and party with males. Our society labels them as prostitutes and considers them easily available. This stereotypical regressive outlook of society is questioned through the movie and Deepak Sehgal acts as the mouthpiece of the director in this case. In the open courtroom Sehgal asks Meenal whether she is a virgin and Meenal confirms that she is not. This kind of declaration in public of an unmarried woman's sexual status is unthinkable in the Indian socio-cultural perspective where even talking about sexual relation labels a girl obscene. When Falak declares that due to financial crisis they asked for money from Rajveer and his friends but eventually felt that they should not get involved in any kind of physicality, Sehgal asks whether Meenal claimed money during her earlier sexual relation. Meenal declares that it was a relation of love and hence question of taking money was inconceivable. Sehgal points out that saying "No" is a woman's right. It is the right on her own body. Even if she is a prostitute then also she cannot be taken for granted by patriarchy. It is her body and essentially her choice. It does not need any clarification or justification of any sort. A "No" means a "No". Society has no right, whatsoever, to consider a woman "available" because of her life style. It is terribly unfortunate that even in this twenty-first century a girl is labelled as per society's choice if she does not follow the dictums of the men's world.

1.3 Related Works:

Several researches are going on trying to probe how cinema and society are intertwined with each other. In the Indian context Bollywood is an extremely promising area of research to understand the different strands of social and cultural dimensions at work in our society. It is an engaging medium which facilitates the

understanding of the journey of woman and her evolution from strength to strength despite all efforts of patriarchy to chain her down. Citations from different sources validate this point.

METHODOLOGY

This paper adopts the narrative method and through an analysis of movies try to relate their linkage with the Indian social structure, patriarchal mindset and the consistent development of women from their submissive personalities to confident and assertive identities who are courageous enough to voice their protests against set social norms.

RESULTS

Today's Indian women live with their own dignity and are bold enough not to budge in to situations; rather they are courageous to question pre-conceived notions of the society. They do not suffer from any kind of disrespect about their own selves and do not avoid confronting the onslaughts of patriarchy. They handle all hurdles and emerge victorious. They are the New Women of India full of aspirations, confident about themselves and hurling challenges at the set social norms that try to chop off the wings of these emancipated selves.

CONCLUSION AND FUTURE WORKS

Bollywood has adopted commendable measure by making movies based on these kinds of unconventional themes where the women live on their own terms and are inhibition-free to declare their stand points. This kind of study of social picture through their representation in Bollywood movies has immense prospect and can offer a boost to researchers with the release of newer movies to delve deep into the diverse nuances of socio-cultural politics and its representation in Bollywood.

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A Blueprint for Reforming Hong Kong's Personal Injury Compensation

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ABSTRACT

The rationales behind and the effectiveness of the compensation for pecuniary and non-pecuniary losses in Hong Kong's personal injury disputes will be examined in this project. Special consideration will be given to the assessment of damages for pain, suffering and loss of amenity ("PSLA"). On the other hand, the potential use of structured settlements or periodical payment orders ("PPO") as a substitute for (or together with) lump-sum awards will also be examined. The primary sources of data comprise all judgments on personal injury issued by the Hong Kong Judiciary during 1976-2016. PSLA involves converting pain into dollars, which is not a process of mathematical measurement. It involves sound judgment and principled discretion guided by moral norms. For the purpose of constructing a coherent and logical framework, the statistical relationship between PSLA awards and other relevant factors, such as medical expenses, will be scrutinised. In catastrophic personal injury cases, the lump-sum awards hinge on estimates of the claimants' life expectancies and investment returns over inflation. However, claimants may exhaust their funds by surviving longer than their projected life expectancies, or due to lower-than-expected investment returns. PPO provide for regular payments over their lifetime, which are adjusted annually based on an inflation index. In this project, reforms focussing on PSLA and the use of PPO will be recommended.

Keywords: damages for pain and suffering; investment returns; life expectancies; personal injury

INTRODUCTION

In this project, the rationales behind and the effectiveness of the compensation for pecuniary and non-pecuniary losses in Hong Kong's personal injury disputes will be examined. Special consideration will be given to the assessment of damages for pain, suffering and loss of amenity ("PSLA"). On the other hand, the potential use of structured settlements or periodical payment orders ("PPO") as a substitute for (or together with) lump-sum awards will also be examined.

The primary sources of data comprise all judgments on personal injury issued by all levels of the Hong Kong Judiciary during 1976-2016. Damages are broadly divided into four categories: (1) expenses incurred before the trials; (2) PSLA; (3) future nursing and medical expenses; and (4) future loss of earnings.

Concerning (3) and (4), the present authors previously proposed the move to a standard method of capitalising future financial needs by using actuarial tables. The figures in the tables had to reflect the mortality statistics and economic data of Hong Kong. The proposals and the actuarial tables constructed by the present authors (and his research team) have now been formally endorsed by the Court of First Instance (*Chan Pak Ting* [2013] 2 HKC 182) and the Court of Appeal (*Chan Wai Ming* [2014] 4HKLRD 669), constituting an indispensable part of Hong Kong's common law system.

The present research proposes further reforms, focussing on PSLA and the use of PPO regarding future medical and other expenses.

PSLA involves converting pain into dollars, which is not a process of mathematical measurement. It involves sound judgment and principled discretion guided by moral norms. The present authors will propose a solution to this predicament by systematically analysing the damages awarded by the Hong Kong Judiciary in the past 40 years as guidelines for constructing a coherent and logical framework. In particular, the statistical relationship between PSLA awards and other relevant factors, such as medical/nursing expenses, will be scrutinised. The framework will be presented as an accessible judicial tool for judges, lawyers and mediators involved in dispute resolution.

In catastrophic personal injury cases, the lump-sum awards hinge on estimates of the claimants' life expectancies and investment returns over inflation. However, claimants may exhaust their funds by surviving longer than their projected life expectancies, or due to lower-than-expected investment returns. PPO provide for regular payments over their lifetime, which are adjusted annually based on an inflation index. In this project, reforms focussing on PSLA and the use of PPO regarding future medical expenses will be recommended.

OBJECTIVES

The first part of the project is concerned with the assessment of PSLA. A large collection of disparate cases issued by all levels of the Hong Kong courts (from 1976 to 2016) involving PSLA awards will be analysed. Under the existing case law, most of the pain and suffering were directly caused by the injury itself, while others were the consequences of resultant medical or surgical treatments. The notion of pain frequently included mental distress apart from physical pain. Degradation and humiliation associated with severe scars and disfigurement inevitably led to tremendous emotional suffering. Extreme embarrassment connected with sexual dysfunction often generated different sorts of psychological disturbances. The diversity in the types and scales of PSLA is both complicated and critical.

Since no pecuniary compensation can adequately compensate PSLA of any real kind, the awards cannot be evaluated by a set of mathematical or actuarial equations. Even though no two cases are identical, greater clarity, consistency and transparency are fundamental to ensuring that justice is not only done, but seen to be done. While it is acknowledged that uncertainties are unavoidable in assessing these types of damages, the ambiguities surrounding this area of law clearly warrants elucidation. A key objective of this project is to formulate a sufficiently well-defined conceptual framework out of a broad notion of "pain and suffering" in Hong Kong. The goal is to construe, unfold, classify and reshape a large number of judicial decisions rendered in Hong Kong in the past 40 years. The quantum of damages awarded in reported cases will be used as the guidelines, with the intention of assigning the proper roles played by the cases within the framework. This is an immensely laborious task, as not all the awards appear to be logically coherent with one another. Furthermore, some of the less recent cases are unreliable unless a trustworthy mechanism for adjusting inflation is accurately formulated on a case-by-case basis, utilising the most relevant economic data. To generate long-term impact, the findings and the framework of analysis will be presented in a coherent format, which can be used and cited by judges and lawyers in courts, and used in the process of dispute resolution, including mediation.

There will be large amounts of PSLA case data and relevant economic statistics in Hong Kong collected in this project. With this database on hand, it enables us to perform one of the first, if not the first, an empirical study on examining the factors that influenced the level of PSLA awards in Hong Kong for the past 40 years so. There are criticisms that PSLA is a major cause of the excessive cost, inefficiency and injustice of the tort system. Empirical results in this project might be able to provide some polemical evidence against such criticisms.

The second part of this project is related to PPO. In the decision in *Chan Pak Ting* (2013), Justice Bharwaney of the Hong Kong Court of First Instance pointed out the feasibility of using PPO as an alternative to the conventional multiplier-multiplicand approach to assessing damages for future pecuniary loss in personal

injury cases. Unfortunately, no in-depth research has been conducted in Hong Kong in this regard. Since a claimant will receive the annual payments for a prolonged period, an inflation indexation is needed to match the claimant's future financial needs, since different heads of future expenses will increase in the future due to inflation. We will collect and analyse a full set of statistical data, including the official data published by the Hong Kong Census and Statistics Department and the Rating and Valuation Department, and data from other sources. A bespoke indexation methodology will be constructed which addresses the unique aspects of the economic and social situation of Hong Kong. The data to be analysed will include the Composite Consumer Price Index, Household Expenditure Survey, Annual Earnings and Hours Survey (AEHS), Rental and Real Estate Price Indices, hospital and health services statistics, and other data related to the annual adjustment of the periodical payments.

BACKGROUND

When an innocent party is injured in a tort-based system of law as the result of the negligence of the wrongdoer, the innocent party should be awarded sufficient compensation so that he or she may live as fulfilling a life as possible after injury. A statement of the common law principle of compensation can be found in *Livingston v Rawyards Coal Company* (1880). Lord Blackburn averred: "... in settling the sum of money to be given for reparation of damages, you should as nearly as possible get at that sum of money which will put the party who has been injured, or who has suffered, in the same position as he would have been in if he had not sustained the wrong for which he is now getting for his compensation or reparation."

In Hong Kong, under the common law principles, awards of damages in personal injury cases are generally assessed under four main heads as laid down by Lord Denning in *Lim Poh Choo v Camden Health Authority* (1979). The heads are: (1) special damages in the shape of money actually expended; (2) PSLA; (3) cost of future nursing and attendance and medical expenses; and (4) loss of future earnings.

In a previous Government-funded project concerning (3) and (4) mentioned in the preceding paragraph, the present investigators constructed a whole set of actuarial tables (Personal Injury Tables Hong Kong: Tables for the Calculation of Damages, Sweet and Maxwell). Recently in Hong Kong, two significant decisions were made in *Chan Pak Ting* (No.1, 2012) and *Chan Pak Ting* (No.2, 2013) by Justice Bharwaney. Chan Pak Ting, 31 years old at the date of trial, suffered catastrophic injuries after a car crash. Two clinical negligence cases were consolidated together with Chan Pak Ting on the same issues related to actuarial tables and discount rates. The plaintiffs are: 12-year old Li Ka Wai who suffered from deprivation of oxygen at birth and became paraplegic, and 12-year old Yuen Hiu Tung who suffered a cardio-respiratory seizure and became mentally retarded and paralysed.

The Personal Injury Tables Hong Kong gained judicial recognition in Chan Pak Ting. Justice Bharwaney stated: "[32] ... I agree that the Chan Tables should be accepted as the starting point in Hong Kong, just as the Ogden Tables are accepted as the starting point in the UK. In future, there should be less need to refer to previous case law of multiplier precedents, particularly if those cases were decided without reference to actuarial tables by way of a cross-check." This new approach was subsequently endorsed by the Hong Kong Court of Appeal in *Chan Wai Ming* (2014).

In this project, we propose further reforms concerning two important aspects of personal injury assessment which are grossly under-researched under the current legal system in Hong Kong. The first part of the project focuses on PSLA. As correctly observed by Justice Dickson of the Supreme Court of Canada in *Andrews v Grand and Toy Alberta Limited* (1978): "There is no medium of exchange for happiness. There is no market for expectation of life. The monetary evaluation of non-pecuniary losses is a philosophical and policy exercise more than a legal or logical one. The award must be fair and reasonable, fairness being gauged by earlier decisions..." Lord Denning MR in *Ward v James* (1996) emphasised three essential guidelines for the assessment of PSLA: assessability, uniformity and predictability.

In 1996, the UK Law Reform Commission issued a Consultation Paper (No. 140) titled "Damages for Personal Injury: Non-Pecuniary Loss", followed by the Commission Report (No. 257) issued in 1999. It was

recommended that the level of damages for non-pecuniary loss for personal injuries (mainly PSLA) should be increased. The Commission's recommendation was examined judicially by the English Court of Appeal in *Heil v Ranlin* (2000). At the end of the judgment, the Court of Appeal included a statistical graph illustrating the comparative levels of increase in PSLA. Shortly after the handing down of the judgment containing the statistical chart, a new edition of the U.K. Judicial Studies Board Guidelines for the Assessment of General Damages in Personal Injury Cases (2000) was published to incorporate the relevant changes in assessing PSLA.

Unfortunately, Hong Kong is lagging behind in this arena. Systematic analysis of the PSLA awards has never been conducted. The only judicial guideline, which is very brief and general, can be found in the Hong Kong Court of Appeal's decision in *Chan Pui Ki* (1996). Under the guideline, PSLA are broadly categorised into 4 groups: (1) serious injury; (2) substantial injury; (3) gross disability; and (4) disaster. Apart from this, very little judicial guidance is provided under the Hong Kong common law system. Hong Kong does not have its own set of Guidelines for the Assessment of General Damages in Personal Injury Cases. The UK guidelines, nonetheless, cannot be applied to Hong Kong directly. Although Hong Kong pegged its currency with the US Dollars since 1983, the conversion from the British Pound Sterling to Hong Kong Dollar is subject to highly volatile exchange rates, fluctuating frequently due to a number of economic, political and social factors which are often unpredictable. With all these limits and predicaments, the Hong Kong judges and lawyers have no choice but to examine the medical reports in each and every case and do their best to determine how the injuries revealed in the medical evidence fit into one of the four categories of PSLA.

It is not advocated by the present authors that a statistical formula (which aims at quantifying the severity of a claimant's PSLA) would entirely solve the problem identified above. There is no nonpartisan way of measuring PSLA and its levels of severity. As rightly observed by Justice Mosk of the Californian Supreme Court: "The varieties and degrees of pain are almost infinite. Individuals differ greatly in susceptibility to pain and in capacity to withstand it. And the impossibility of recognizing or of isolating fixed levels or plateaus of suffering must be conceded." (*Beagle v Vasold* (1966)).

On the other hand, it is against the existing case law to suggest that any attempt to conduct a pecuniary measurement of PSLA is conceptually flawed simply because PSLA is not measurable with money. We argue that even though it may not be feasible to accurately and swiftly convert PSLA into monetary awards, it does not mean that there is no logical connection or correlation between the seriousness of injuries and the actual quantum of PSLA awards granted for putting the victims in the same position as they would have been in if they had not suffered from the injuries. The rich source of primary data is derived from all the reported and unreported judgments on personal injuries issued by all levels of the Hong Kong Judiciary during 1976-2016, including District Court, Court of First Instance, Court of Appeal, UK Privy Council (before 1 July 1997) and the Court of Final Appeal (post-1997). This database will provide a treasure trove of materials and data for the investigators to perform the analysis. Technical aspects of the statistical methodology are provided in the next section.

Another key objective of this project is related to PPO. In the decision in *Chan Pak Ting* (2013), Justice Bharwaney of the Hong Kong Court of First Instance pointed out the feasibility of using periodical payments as an alternative to the conventional multiplier-multiplicand approach to assessing damages for future pecuniary loss in personal injury cases. Unfortunately, almost no research has ever been conducted in Hong Kong in this regard.

In the decision in *Chan Pak Ting* (No. 2, 2013), Justice Bharwaney indicated the viable benefit of making PPO as an alternative to the conventional multiplier-multiplicand approach to assessing damages for future pecuniary loss in personal injury cases. We will conduct a thorough analysis of Hong Kong's unique situation and the law and practice in overseas jurisdictions. We argue that the current approach of awarding the lump-sum awards for future pecuniary loss in Hong Kong is not suitable in cases where a claimant has been permanently paralysed or catastrophically injured. The claimant requires lifelong nursing care and medical treatments for many years to come. The awards of these types should ideally be paid periodically, and also inflation-adjusted periodically, throughout the claimant's actual duration of life. Under the current lump-

sum approach, the award is actuarially calculated based on the projection of the claimant's life expectancy. Other factors taken into account include inflation rates, interest rates and investment returns, since the claimant is expected to prudently invest the lump-sum award for the purpose of generating investment yields covering the medical and nursing expenses. Unfortunately, there is no channel for a claimant to re-open the gate by claiming additional compensation if the claimant uses up the fund before his/her death. He or she may exhaust the fund by surviving longer than the actuarially projected life expectancy, due to an unforeseen advancement in medical technology. The fund may also be exhausted earlier than expected if the investment returns turn out to be worse than projected, due to unexpected fluctuation in inflation rates, volatility in interest rates and poor investment returns caused by unanticipated financial crises.

Legislation should be enacted in Hong Kong to enable the courts, as an alternative to lump-sum awards, to make PPO to compensate victims in cases of catastrophic injuries, for the costs of (a) future medical treatment; (b) future nursing care and the future provision of medical appliances; (c) future rental expenses for alternative accommodation needed to cope with the disability. PPO should only be made if the court is satisfied that continuity of payment in the future is secure irrespective of the insolvency of the insurers or the defendants obliged to honour the PPO. Under the existing mechanism in Hong Kong, three insolvency funds were set up to protect the interest of the claimants in the event of the insurers' insolvency. They are: The Employees' Compensation Insurer Insolvency Bureau, the Motor Insurers' Bureau and the Policyholders' Protection Fund (under the Insurance Companies Ordinance, Cap. 41, Laws of Hong Kong). However, these schemes were not designed with the notion of PPO in mind. Appropriate changes of the legislative framework is needed to put PPO into practice, with the objective of making payments under PPO legally secured and protected to the fullest extent.

For PPO to operate in Hong Kong, a workable mechanism for indexing the periodical payments is needed. Without the indexation which adequately reflects the impact of inflation, PPO will not be viable in Hong Kong. Owing to the unique social and economic situation of Hong Kong, the indexation must thoroughly resonate the rental inflation, medical inflation, and the inflation of wages payable to professional carers and nursing workers. The general composite Consumer Price Index (CPI) compiled by the Hong Kong Census and Statistics Department may not be adequately equipped to respond to the notion PPO, while the Annual Earnings and Hours Survey (AEHS) provides some of the useful primary data from which the indexation can be derived. The technical aspects of the statistical modelling of the indexation will be explained in the next section.

RESEARCH METHODOLOGY

Literature Review: Cases, materials and literature on the law and economics concerning the assessment of nonpecuniary loss from the United Kingdom, Australia, the United States, Canada and other jurisdictions will be reviewed. References include, among many others, Genn (1994), Geistfeld (1995), Cassels (2000), Levene and Vaughan (2000), Lewis (2001, 2014), Cane and Kritzer (2010), Leiter et al. (2012), Cane (2013), Luntz et al. (2013), Nolan (2013) and Halson (2015).

Collection of Materials: The primary sources of data on case law comprise all reported and unreported judgments on personal injury issued by all levels of the Hong Kong Judiciary during 1976-2016, including District Court, Court of First Instance, Court of Appeal, UK Privy Council (before 1 July 1997) and the Court of Final Appeal (post-1997). More than 700 judgments on personal injury in Hong Kong will be covered in our study. In each individual case, information on the assessment of damages will be carefully identified and collected. In particular, the following data from each case will be extracted into the database:

- Case name,
- Year of the judgment,
- Age and Gender of the claimant,
- PSLA type (serious injury/substantial injury/gross disability/disaster),
- PSLA award amount,

- Future losses (including: loss of future earnings, pensions and other expenses).

A sample database template for the case *Leung On & Anor v Chan Pui Ki (an infant)* (1996) is shown in the Annex. Compiling this database is a tedious and time-consuming task requiring profound knowledge and skills on case-reading and computer literacy. In this project, we plan to hire a graduate research assistant (assisted by an undergraduate law student) to perform this task. It is estimated that 12-18 months are needed to compile and verify the accuracy of the database. Furthermore, the following relevant social and economic statistics of Hong Kong will be collected from various public sources:

- Hong Kong inflation rates, 1976-2016,
- The Gross Domestic Product (GDP) in Hong Kong, 1976-2016,
- Hong Kong mortality rates and life expectancies, 1976-2016.
- Statistical Analysis

One of the objectives of this project is to explore the possible co-relationships among various factors (such as characteristics of claimants, year of judgement, other case-specific information and macroeconomic indicators) and the magnitude of the PSLA awards. Based on our literature review, there has been no systematic study of how the relevant factors influence the PSLA awards in Hong Kong. Hence, rigorous study of these factors is of great significance to lawyers, Judges, insurance practitioners, and empirical legal scholars.

PRELIMINARY FINDINGS

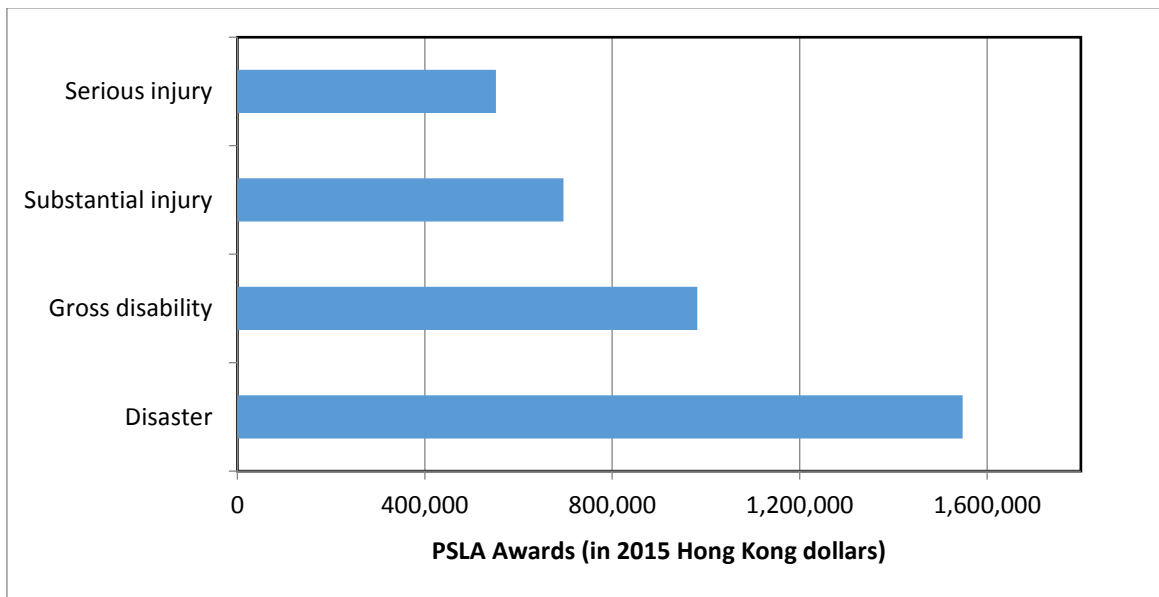
(1) Pilot samples

To illustrate the proposed statistical methodology, we assembled 40 pilot cases using the template in the Annex. To facilitate a fair comparison among the PSLA amounts awarded in different years, all the PSLA figures in the pilot sample have been adjusted for inflation (to the June 2015 constant dollars) using the Hong Kong Composite Consumer Price Indices. It should be noted that the preliminary results presented in this section were based on the pilot dataset with small sample size, and they were used purely for the illustrative purpose. The final results of this project, which will be based on the complete database with 500-700 cases, might vary from these preliminary results. This caution cannot be overemphasised.

(2) Factor 1: Severity of the injury

It is expected that the PSLA awards are positively correlated with the severity of the injury of the claimant. Unfortunately, there is no numerical scale of measurement for the degree of injury in Hong Kong. The only judicial guideline, which is very brief and general, can be found in the Hong Kong Court of Appeals decision in *Chan Pui Ki* (1996). Under the guideline, the severity of an injury is broadly classified into one of the four descriptive categories: (1) serious injury; (2) substantial injury; (3) gross disability; and (4) disaster. For the pre-1996 cases in our pilot sample, we assigned the injury descriptor to each case using the guideline. Figure 1 displays the preliminary results from the pilot sample, and it shows that the PSLA awards are fairly different for the different degrees of injury. The amount of differences will be further analysed using the statistical method of ANOVA (Analysis of Variance, see Finkelstein and Levin, 2001, Section 7.2).

Figure 1: Average PSLA awards (Pilot sample, by category)



(3) Factor 2: Life expectancy

In addition to the above hypothesis of awarding more money in cases of more serious injury, the court may be influenced by the increasing trend in life expectancy (Lewis, 2001). In Hong Kong the life expectancy at birth for men was 67.8 in 1971, increased to 75.1 in 1991 and further climbed to 80.3 in 2011. Living longer for a seriously injured claimant would mean that he has to endure pain for a longer time and therefore high PSLA amount should be awarded. To test this hypothesis, we propose using a simple linear regression model (Finkelstein and Levin, 2001, Chapter 13):

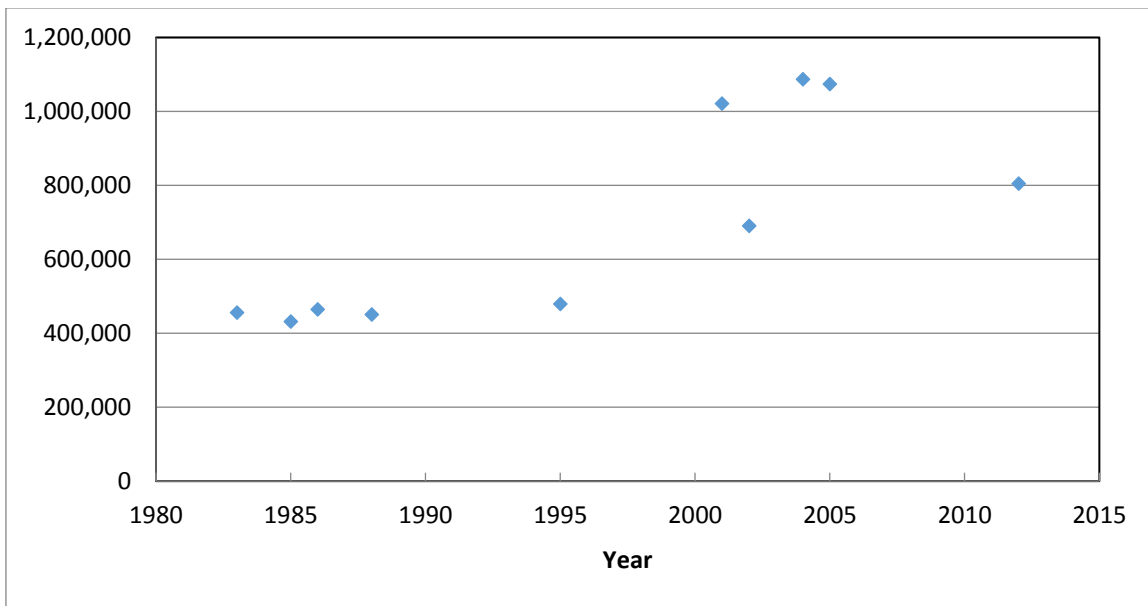
$$PSLA_{ij} = \alpha_i + \beta_i LE_j + e_{ij}$$

In this model, $PSLA_{ij}$ is the award amount for the j^{th} case in the i^{th} category of injury, and LE_j is the life expectancy of the j^{th} claimant. It should be noted that LE_j depends on the age at the judgement year and gender of the claimant. This model is fitted using the pilot cases and the preliminary results show that the life expectancy factor, at least in the disaster type of injuries, was a significant factor in deciding the PSLA awards in Hong Kong.

(4) Factor 3: *Heil v Rankin* uplift

In a Law Commission Report (Damages for Personal Injury: Non-Pecuniary Loss, No 257, 1999) it was suggested that PSLA awards in UK were too low. The Court of Appeal in *Heil v Rankin* (2000) formalised the recommendation and decided that an increase was required in all PSLA awards that would previous have been over £10,000 (but no increase needed for the awards under £10,000). The increase should be on a linear scale, with the highest (those over £150,000) increasing by a third. This has become known as the *Heil v Rankin* uplift (Emmet, 2014). Formulas, tables and graphs have been produced with the aim of helping practitioners to implement the Court of Appeal decreed in *Heil v Rankin* (De Wilde, 2014, Section B1). The *Heil v Rankin* uplift has not been followed by Hong Kong courts explicitly. It would be interesting to examine whether the PSLA awards exhibited a level shift after 2000, the year of *Heil v Rankin* decision. If so, it may imply that the Heil judgement in UK did affect the Hong Kong PSLA awards implicitly. Our preliminary result in Figure 2 shows that there was a shift of amounts after 2000. However, a more rigorous statistical analysis will be performed on this factor using the dummy variable method (Viscusi and McMichael, 2014).

Figure 2: PSLA Awards (Substantial Injury - by Year)



SUGGESTIONS FOR FURTHER RESEARCH

In *Chan Pak Ting* (2013), Justice Bharwaney of the Hong Kong Court of First Instance raised the possibility of making PPO an alternative to the conventional lump-sum approach to assessing damages for future pecuniary loss in personal injury litigations in Hong Kong. The first step in this research will conduct a detailed review of the local situation as well as the relevant law and practice in overseas jurisdictions. References include, among many others, Weir (1984), Lewis (1993, 2010), Wass (2007), Copper and Wass (2009), Hindert et al. (2015). For PPO to operate in Hong Kong, a workable mechanism for indexing the periodical payments is needed. One of the advantages of PPO is that the payments could be protected against inflation in prices by being tied to an appropriate price index. Courts Act 2003 in UK specifies the Retail Price Index (RPI) as the default index, even though the Act does allow other indexes to be used. Most future costs and expenses of personal injury claimants are directly related not to price inflation but to earnings. In particular, a significant amount of future losses is often dependent upon the earnings of those workers who provide the care. The wage inflation of care workers has been higher than the price inflation in the past and the award of PPO based on RPI would prove inadequate to meet long-term care needs of the claimant. The indexation issue has been examined through UK courts many times since 2006. In the key case of *Thomptone v Tameside and Glossop Acute Services NHS Trust* (2006), it was decided that the Annual Survey of Hours and Earnings (ASHE) data should be used for indexation. In particular, the ASHE subgroup, numbered 6115 comprising 'Care Assistants and Home Carers', was approved for tying PPO care payments. However, indexation of future losses other than care (such as equipment, aids to mobility, transport and running costs of accommodation) has not been fully resolved in UK. It is respectfully submitted that the UK indexation methodology bears little relevance to the prevailing economic conditions in Hong Kong. The wage statistics and economic data of Hong Kong and the UK are very different. Nonetheless, the Court of Appeal in UK established criteria for indexing PPO. They are: (i) precision-accuracy of match to type and level of expenditure, (ii) authority of the collector, (iii) statistical reliability, (iv) accessibility, (v) consistency over time, (vi) reproducibility in the future, and (vii) simplicity and consistency in application. Based on these factors, the relevant index data must be collected for the purpose of identifying the suitable claimants for the indexation of care and other PPO payments in Hong Kong. The data to be analysed should cover the Composite Consumer Price Index, Household Expenditure Survey, Annual Earnings and Hours Survey (AEHS) data, Rental and Real Estate Price Indices, hospital and health services statistics, and other data related to the annual adjustment of the periodical payments.

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Annex

Case Name	Leung On & Anor v Chan Pui Ki (an infant)	
Case Ref	(HCA No 2006 of 1992) SCt File No 19/95; First Instance and Appealed CA263/95;	
Case Citation	[1996] 2 HKC 565; (1996) HKLD 629	
Decision Year	1996	

Gender	F	
Age at accident	10	1989
Age at trial	16	1995
Age at appeal	17	1996

PSLA (type/ref/amt)	Disaster	33	\$1,000,000
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Future Losses:	Amount	Multiplicand	Multiplier
Loss of future earnings include MPF	\$1,620,000	\$108,000	15
Future medical care	\$300,000	Not explained clearly	Not explained clearly
Future domestic help or nursing care	\$480,000	\$48,000	10
Future transport costs			
Future recurring expenses			
Future management and investment advice	\$160,000	Not explained (simply 10% of loss of future earning)	Not explained
Future accommodation			
Remarks			

THE USING OF COOPERATIVE LEARNING (JIGSAW TECHNIQUE) TO ENHANCE LEARNING ACHIEVEMENT IN PSYCHOLOGY FOR TEACHERS SUBJECT OF STUDENT TEACHERS IN SURATTHANI RAJABHAT UNIVERSITY

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ABSTRACT

The objective of the research was to examine the achievement of Cooperative Learning Model (Jigsaw Technique) which effected learning achievement by comparison learning achievements between the Cooperative Learning Model group (Jigsaw Technique) and the normal learning group, before and after using the Cooperative Learning Model (Jigsaw Technique) of the Cooperative Learning Model group. The sampling was the English Major students in the second semester of academic year 2015 from the Faculty of Education, Suratthani Rajabhat University. They registered Psychology for Teachers Subject (EPY0301) for 2 sections. The sampling was drawn from purposive sampling method and divided into 2 groups using simple sampling method as follows; treatment group was used Cooperative Learning Model (Jigsaw Technique) and control group was used normal learning. The Cooperative Learning Model (Jigsaw Technique) was spent 3 hours per activity within 5 weeks. The instruments used in collecting data are Cooperative Learning Model (Jigsaw Technique), and Learning Achievement Test. The Data analyze using The Wilcoxon Matched Pairs Signed-Ranks test and The Mann-Whitney Test. The findings were as follows;

1 After treatment, the group of Cooperative Learning Model (Jigsaw Technique) has higher learning achievement than the normal learning group statistically significance at .05.

2 After treatment, the group of Cooperative Learning Model (Jigsaw Technique) has higher learning achievement than before statistically significance at .05.

Keywords: Cooperative Learning Model, Jigsaw Technique, Learning Achievement

INTRODUCTION

National Education Act of B.E.2542 (1999) and THIRD National Education Act of B.E. 2553 (2010) are emphasizing on the importance of student-centered as Section 22 "Education shall be based all learners are capable of learning and self-development, and are regarded that being most important. The teaching-learning process shall aim at enabling the learners to develop themselves at their own pace and to the best of their potentiality" which consistence with Education National Plan of B.E.2552-2559 (2009-2016). There are measures that accelerate the development of teachers and educational personnel to have the knowledge and skills to educate (Section 2, Strategic No. 2). It can be seen that the education of Thailand needs to be transformed from the original, emphasizing the teacher's knowledge transfer as the focus of students-centered.

Cooperative learning is a model that can be support student-centered because the small group of students which included 3-6 different ability members will help each other to reach the goals. The key educators who propagate this concept of learning are Robert E. Slavin, David Johnson, and Roger Johnson, said that the general instruction is often do not pay attention to relationships and interactions between learners. It mostly aimed at interaction between teachers and learners or learners and lessons. The relationships between students are often neglected or overlooked. Despite both the findings clearly indicate that the feelings of the learner toward oneself, the school, the teacher, and the classmate, have a great effect on learning. (Tissana, 2004: 98-103) The cooperative leaning has several methods such as Roundtable activity, 3 steps interview, Team - Games - Tournament (TGT),

Group Investigation, and Jigsaw. (Department of Academic Affairs, 2001) The benefits of CL are enhances learner's confidence, develops ideas, raise learning achievement, enhances learning atmosphere, promotes interpersonal skills, and improves social adaptability.

Cooperative Learning (Jigsaw Technique) is a model of CL which focused on learners-centered. The core principle is divide the students into group and the member of each group will receive data which looks like Jigsaw game which the learners have one puzzle and then bring the following puzzle together to complete the task. (Gunter, 2007). This technique promotes positive effects as teamwork and relationship.

The subject entitled "Psychology for teachers" is a basic psychological knowledge and Human Development Psychology. Psychology of Learning and Psychology of Educational, Psychology of Guidance and Counseling, application of psychology to use in learning management for the different students, helping the learners to learn and develop, practicing, applying the principles of psychology to use in learning instruction and suit with brain development, learning model, potential and aptitude of the learners. This course is focusing on the psychology content and theory which suitable for freshmen students. From the researcher's experiences, the students are not familiar with basic psychology theory and the freshmen are adjusting to the university learning system.

For those reasons, the cooperative learning (Jigsaw Technique) is interesting which effects learning achievement of Education Faculty students, Surattthani Rajabhat University. Therefore, the findings of this study will be benefit for development of students and leading to the effectiveness teachers to enhance the community further.

LITERATURE & THEORY

1. Cooperative Learning (Jigsaw Technique)

Cooperative Learning is a learning method which helps students to acknowledge learning's specific characteristics and reach their mutual goals in group work. It is usually more complicated than normal group work (Kauchak and Eggen, 1998) and it uses small-group cooperative learning and mutual achievement rewarding from group members (Cruickshank, 2006).

Jigsaw Technique is a learning process management using jigsaw technique. Students are divided into small groups and teachers assign an individual group member to study a specific content. Each student in a group then becomes an expert in a specific content. However, other contents from other group members are required for complete understanding in all the contents to reach achievement (Kanittha, 2007).

1.1 Main Principles of Cooperative Learning (Jigsaw Technique)

Johnson and Johnson (1994) and Kanittha (2007) state main principles of Cooperative Learning Model (Jigsaw Technique) as follows;

1.1.1 Positive Interdependence - Every member owns equal duties and priorities. Everyone knows his own duties in each learning and must always be responsible for the activity. Every member realizes that group achievement depends on all group members. The means towards this feeling may be resulted from mutual objectives. Students must learn one topic and other group friends must learn it as well. If a group earns high score, each group member will earn higher individual score as well.

1.1.2 Face to Face Interaction - Students have face to face interaction. They have chance to communicate with one another while working. They may either use verbal or non-verbal communication, or both. It should be student-student interaction, not student-textbook interaction like conventional learning. Moreover, every member must be involved in discussions. Everyone must participate in working, accept others' reasons, argue with reasons (not personal prejudice), support and compliment others as these basically social skills are required to live together in a society.

1.1.3 Individual Accountability at Group work - Each group member has his own accountability and must do his best at his assigned task. Learning is never achieved until every member becomes aware of his roles.

1.1.4 Students have individual accountability and they are to be responsible in their own duties. In cooperative learning, no students are to perform work alone.

Individual evaluation is an important part to evaluate whether a student performs his tasks well or not. Teachers can assess students individually or randomly. Students in each group are chosen to answer questions or explain their tasks. Students should be supported for self-assessment.

1.1.5 Social Skill – Assistive and social cooperative activities can be successful if interpersonal skills and group works exist. They are called Social Skill. Social skill is getting to know and trusting one another, convey clear meanings, accept and support one another and help another in problem-solving. According to group work skills, students help one another in knowledge sharing, knowledge exchanging and group collaboration. Thus, everyone is willing to participate in group work to reach achievement.

1.1.6 Group Process – An important basis for cooperative learning is Group Process. It defines a situation when students discuss and provide feedbacks through stating how the method gives benefits. Students use skills to create tasks. Cooperative learning prepares opportunities for students to review and memorize suitable methods. For example, questioning process or group task reading process should occur when each group presents its own achievement. Then teachers should be involved in provide feedbacks through relevant questions and suggestions by observing during cooperative learning. Observations may not be done every time. Still, they should be frequently done. Observations may consider knowledge and opinion sharing and problem-solving.

In conclusion, Cooperative Learning (Jigsaw Technique) are dependent on important factors – positive interdependence, group accountability and group process. These factors lead to learning efficiency.

2. After Action Review: AAR

After Action Review is mind opening and learning after an activity is done in order to admire success and discover further improvement. It is a step in work cycle. It is an action review in terms of success and problem. It is not designed to find out who has done mistakes and it is not designed to blame anyone. Instead, it is designed to exchange working experience to solve problems and avoid them to happen again. In some case, the existing method may be the best (Udom : 2009).

After Action Review is a tool developed by learning process in American army. It was initially used in 1970. It is said that, with AAR, junior soldiers can propose questions to learn from senior soldiers in order to build up inter-learning culture, instead of solely comply orders (Kittipong : 2012).

In AAR (After Action Review), planning and announcement are required before working. During work, teams must collect data or observe contents. In AAR, facilitators may present to ask specified questions. Questions may be changed due to demand and necessity. Four questions are (1) What are the expected outcomes?, (2) What are the actual outcomes?, (3) What are the causes? and (4) What do we learn? From the four questions, every member can come up with new issues related to the work, following After Action Review, under the control of facilitator with analysis to obtain the best practical guidelines, knowledge recording, practice guidelines and notices.

RELATED WORKS OR DISCUSSION

The related works include the following ones. Walaiporn Konchanhom (2008) studied cooperative learning development (jigsaw technique) on health promotion, physical ability promotion and disease prevention, health and physical education, primary 3. The result found that the students had academic progress and they were satisfied with cooperative learning (jigsaw technique) at high level. Sirithorn Chaochern (2013) studied cooperative learning development (jigsaw) in social studies, religion and culture. The sampling was 28 students in primary 4. The result found that the students who learned through cooperative learning (jigsaw technique) had higher academic achievement and became learning leaders. The internationally related works include the following ones. Gelu and Muza (2011) studied atoms in physics using jigsaw technique. The result found that cooperative learning (jigsaw technique) could be applied for teaching atoms in physics. The students could understand well and became more enthusiastic in learning. Marhamah and Mulyadi (2013) studied the effectiveness of cooperative learning (jigsaw technique) strategies by experimenting with 52 sophomores, Faculty of Islamic Studies, Islam Jatar University, Indonesia. The students were divided into two groups – 28 students in the experiment group and 24 students in the control group. The result found that the experiment

group students with cooperative learning (jigsaw technique) earned higher post-test scores than the control group students. From the interview, the experiment group students had positive attitudes. Also, cooperative learning (jigsaw technique) promoted interpersonal skill.

Cooperative learning (jigsaw technique) can promote reading and speaking skills as seen in Novita Maya Sari (2013). Novita Maya Sari (2013) studied whether cooperative learning (jigsaw II) affected English reading comprehension of 77 students from grade 8 in SMP Negeri 2 Tanggul Jember. The students were divided into two groups -40 students in the experiment group with jigsaw technique learning and 37 students in the control group with question-and-answer learning. The result showed that cooperative learning (jigsaw II) had impact on reading comprehension because of the higher post-test scores. Also, it can promote academic achievement and social skill. In term of speaking, Li Qian (2012) studied cooperative learning (jigsaw technique) in university speaking class. The research was operated at a university in China. The research participants were 30 non-English major childhood education students. The result found that most of the research participants had high stress before participating in jigsaw technique. Jigsaw technique could reduce stress and promote speaking ability. Most of the research participants had positive attitudes towards learning and English speaking through jigsaw activities.

METHODS

1. Population:

156 freshmen students of Faculty of Education, Suratthani Rajabhat University who registered in Psychology for Teacher course (EPY0301), 2nd semester of Academic year 2015

2. Sampling:

50 students from 2 sections of English Language major, Faculty of Education, Suratthani Rajabhat University who registered in Psychology for Teacher course (EPY0301), 2nd semester of Academic year 2015. The sampling was gained from purposive sampling method and divided the sampling by simple random sampling method (Lottery). Separated into 2 sections as Section 1 is "Experimental group", a group of 25 students which using cooperative learning (Jigsaw Technique). Section 2 is "Control group", a group of 25 students which using lectures teaching.

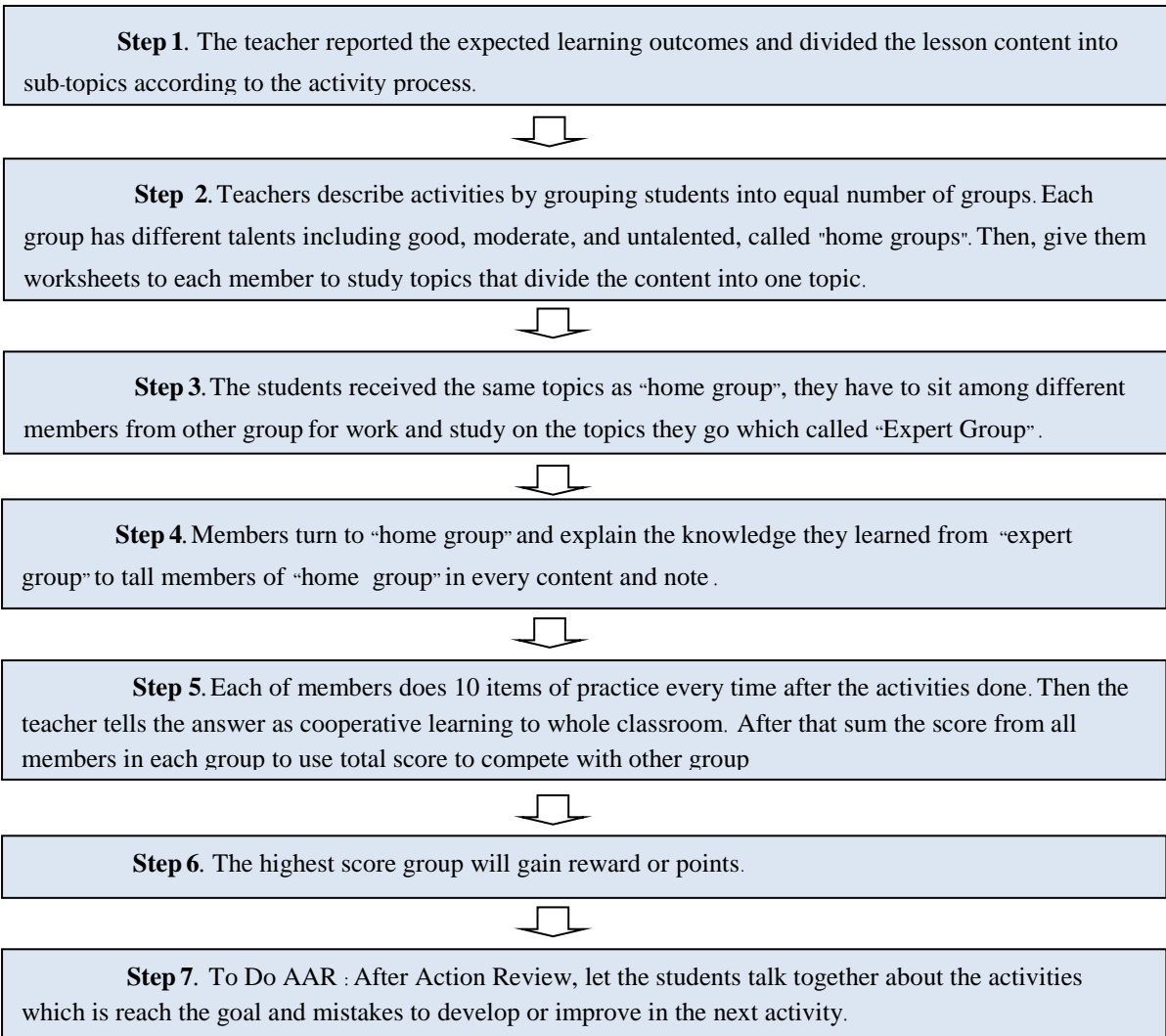
3. Research Variables:

Independent variable is Cooperative Learning (Jigsaw Technique) and Dependent variables is Learning Achievement.

4. Research Equipment

There are five activities using in Psychology for teachers which covered five contents; development theory, learner development, learning motivation, brain and learning, and learning theory. There are 10 sub-activities in content which doing after the activity ended and including 50 items of achievement test as Pretest and Posttest.

The researcher created the equipment and presented to the three experts. Calculated the statistics measurement of the tools, tryout, and improve, then use to collect the data as the following 7 steps in the chart below;



In the first experiment, the researcher gave a detailed explanation of the procedures and practices for the students in the experimental group and pre-test which using learning achievement form. Scoring and use that scores to test the different in average score by The Mann-Whitney Test at statistically significant .05 level to find out whether the experimental group and the control group had the same mean of achievement scores or not. It no difference which showing that it can be compare when doing activity. Then, the experiment was conducted by cooperative learning (Jigsaw Technique) in Psychology for Teachers course for sophomore students included 5 activities, 3 hours per activity. The scores are collected during class. After completing all 5 activities, the students have to do posttest using learning achievement test, and then compare the score.

RESULTS

Table 1. The comparison result of learning achievement between CL group (Jigsaw Technique) and Normal Learning group (before experiment)

Group	No. of Students	\bar{x}	Z	p
CL	25	25.28	-.17	.87
Normal	25	24.84		

* Statistically significant at the .05 level

The comparison result of learning achievement between CL group (Jigsaw Technique) and Normal Learning group (before experiment) found that the average score of learning achievement were 25.28 and 24.84, respectively, and before the experiment, both groups was not different statistically significant at the .05 level.

Table 2.
The comparison result of learning achievement between CL group (Jigsaw Technique) and Normal Learning group (after experiment)

Group	No. of Students	\bar{x}	Z	p
CL	25	41.60	-4.39	.00
Normal	25	35.36		

* Statistically significant at the .05 level

The comparison result of learning achievement between CL group (Jigsaw Technique) and Normal Learning group (after experiment) found that the average score of learning achievement of CL group was higher than Normal group which was statistically significant at the .05 level.

Table 3.
The comparison result of learning achievement Before and After of CL group (Jigsaw Technique)

Period	\bar{x}	Z	p
Before	25.28	-4.38*	.00
After	41.60		

* Statistically significant at the .05 level

The comparison result of learning achievement Before and After of CL group (Jigsaw Technique) found that the average score of learning achievement of CL group was higher than before which was statistically significant at the .05 level.

DISCUSSION

The findings can be discussed as follows;

The result found that CL (Jigsaw Technique) effected learning achievement which can be seen from students of CL group (Jigsaw Technique) that they have higher learning achievement than normal group of students and After the experimental, students of CL group (Jigsaw Technique) have higher scores than before. Due to the CL (Jigsaw Technique) is an instruction which emphasis on the learners. The students have to practice in a small group; it will enhance the learning capacity of each student and encouraged to help each other to achieve their goals, whether it's an achievement or recognition of individual differences. (Department of Academic Affairs ,2001). More over the CL (Jigsaw Technique) method encourages students to understand the broader and deeper content. (Mohammad et al. 2014) Due to separated content when learning with experts group students have to understand the core content because they have to relay in home group which she or he is the one who only know that content. Teacher supported by the stimulus before the activity as " all content is important, if any content is not complete when brought back to the home, it will be an incomplete Jigsaw overview as well. So everyone is an important part of Jigsaw. (Johnson and Johnson,1994)" From those reasons, when students are in each group of experts, they pay intention to the worksheet. When it ended, there is also a peer review in expert group.

Unlike the normal instruction teaching, teachers will transfer the knowledge to the students. It will make students less involved in learning. Besides, when teacher uses CL, the students will learn by themselves. When the students clearly know about their role in the classroom, having the equal activities, sharing opinions, check out the work together and everyone has to help each other in order to reach and achieve the goals. (Pimpan, 2001) It gives students more motivation and interest in studying.

To create the worksheet which uses in Step 3, there are items, pictures and color printing which is interesting the learners. And in Step 5, after the students do the quiz the teacher will reveal the answer as CL. It makes them know their result immediately. Giving feedback immediately following the learning principle of Skinner which the learners get positive feedback here is theirs score and group scores it will keep the behavior.

But if students get bad scores, they will not be satisfied and will change their behavior. In AAR: After Action Review process, it will be a time to think of ways to improve both their behavior and group working process. (Kittipong, 2012)

From the interview at the end of the activity found that the students were fun and satisfied CL (Jigsaw Technique) and full participation in learning leads to enthusiasm for learning, self-study, and a collaborative learning society.

Cooperative Learning instruction (Jigsaw Technique) is also reduce stress in speech. It also promotes the development of speaking and positively attitudes towards learning and speaking. (Li Qian, 2012) Because of doing activity, the students have to relay by speaking. Teacher noticed that in the first activity, some of the students are not brave enough to speak due to the uncertainty of the data they have studied and the content of that home group incomplete. The students get lower scores than other groups when they did the quiz. After let the students dis AAR: After Action Review, they found the solution that in the next CL (Jigsaw Technique) every student must speak out because they have to relay the knowledge to their friends. After that, teacher observed that students have more confident to talk and they also learn that every word are importance. Finally, when the student is practicing often with a good attitude of speaking, it gives students a good attitude to speak.

CONCLUSION AND FUTURE WORK

The result of Cooperative Learning Model (Jigsaw Technique) which affected to learning achievement in Psychology for Teachers course between the group of Cooperative Learning Model (Jigsaw Technique) and normal learning group. After treatment, the group of Cooperative Learning Model (Jigsaw Technique) has higher learning achievement than the normal learning group and has higher learning achievement than before experiment.

Further Beneficial

This study shows that CL (Jigsaw Technique) has positive effects on academic achievement. Thus, the teacher should use CL (Jigsaw Technique) in teaching instruction or group work to support relationship and can be applied as appropriate. For the first time of the activity, teacher must explain the process in detail for students understanding and correctly practice. It may be a demonstration or spare more time. If they do not understand, teacher must explain and let them do the activity in the same way. For AAR: After Action Review, teacher must explain the role of facilitator which she or he will be the leader of the conversation and summarize issues that are problematic or promote operational success. The cooperative leaning model can apply to subjects with content that students can read and understand the basics. Giving reward can be the point or the substantial reward such as pencils and pens to be motivated to do next activity. The place to do activities should be a peaceful place without the crowds and noise because students need to concentrate on content recognition and when it comes to broadcasting in the home group, they must listen to the content described by friends. It may use BAR (Before Action Review model used in conjunction with AAR: After Action Review by the students set the goals for work before doing the activity. They may study from AAR: After Action Review model in previous activity to enhance the capability of Cooperative Learning model (Jigsaw Technique) further.

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Determinants of Farmers' Investment on Sustainable agricultural practices: Evidence from Amhara Region, Ethiopia

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ABSTRACT

Sustainable agricultural practices (SAPs) is a pooled of practices that increase productivity while conserving soil, which put on firm foundation of zero tillage, use of manure legume intercropping and legume crop rotation. Despite use of sustainable agriculture is a panacea for aggravated soil erosion and nutrient depletion and maximizing crop produce, but it seems a plateau for farmers in Dangila district. This study, therefore, assessed factors that affecting of farmers decision behavior of implementing sustainable agricultural practices in Amhara region. The multistage sampling procedure was used to identify kebeles and sample respondents. Mixed nature of data were collected from sample respondents. While qualitative data were generated from observation, focus group discussion and key informant interviews using checklists, quantitative were collected from selected sample respondents using structured questionnaire during survey time from December 2013 to January 2014. Both descriptive statistics and Binary logit model was employed. The result of this study indicates that executing of SAPs is the aggregate of many factors, which should be given due attention in the transformation agriculture to environmentally friendly technologies and boosting agricultural productivity as best climate smart agricultural practice.

Keywords: Sustainable Agricultural practices, Determinants, Land degradation, Binary logit

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Introduction

Ethiopian Economy is based on agriculture, which accounts 42 percent of GDP, 80 percent's of total employment, and 70 percent foreign currency (CSA, 2013). Moreover, agriculture is the single most important source of food for the nation (World Bank, 2013). In countries where agriculture is the mainstay of the economy, soil fertility depletion in smallholder farming is one of the fundamental consequences of environmental problems causing low agricultural productivity. The dependency of livelihoods of majority of the people on agriculture results in fast and vast land degradation. Coupled with fast growing population, erratic rainfall and poverty; land degradation poses a serious threat for declining of agricultural productivity

of the nation. The agriculture sector suffers from poor cultivation practices and frequent drought, but recent joint efforts by the government of Ethiopia and donors have strengthened with terrible starvation (Genene, 2006; Mesfin, 2010).

Land is the most important natural resource in this planet. It is a place from which humans beings are exploiting a number of resources (Taffa 2002). Almost all necessary inputs and source of food found from land. However, land is losing its productivity due to a rising trend of land degradation (Wagayehu 2003; Woldeamlak and Sterk 2003; Genene 2006). The well-known proximate causes of land degradation are deforestation, overgrazing, limited soil and water conservation, burning of dung and crop residues, limited use of organic matter and declining use of fallow (FAO 1995; Genene 2006). Land degradation is an old problem for Ethiopia but new in attracting attention of policy after 1973/74 the devastating famine in Wollo. Although following this worse effect of land degradation, to overcome the problem, Ethiopia has been launch afforestation and conservation programs since 1980s with the support of government and non-governmental organization; however, success of it is limited (Shiferaw and Holden, 1998; Bishaw, 2003; Genene 2006).

This study was undertaken in Dangila district, one of 167 districts' in Amhara region (CSA, 2009), which faces soil erosion; due to continuous cropping, overgrazing, over population, little or no fallowing, limited use of chemical fertilizers, little use of manure and crop varieties and resulted decline of productivity. Despite of natural resource conservation program held in 1980s throughout the country in particular in Dangila district, thus have made conservation structures were not maintained or sustainable. The household decision to invest on land conservation may be thus depend on perception on the erosion problem, knowledge of household, technology, market, land and farm attributes (Ervin and Ervin, 1982; Shiferaw & Holden, 1998; FAO 2016).

The new agricultural paradigm concerns on save and grow compatible with idea of sustainable agriculture system. The principles of sustainable agricultural practices (SAPs') are environmentally friendly, resource conserving, technically viable, economically and socially acceptable (FAO, 2016). SAPs' is not a single practice instead have multiple components such as reduced tillage, fallowing of land, use of manure or cattle dung and leguminous crop rotation or intercropping (Ibid). This agricultural practice helps to arrest land degradation problems and curb to productivity.

Most empirical works done in Sub Saharan Africa indicate that most of adoption studies to date conducted in the country broadly focused on emphasized for green revolution technologies (adoption of improved crop varieties, chemical fertilizer, modern beehives, physical and biological soil and water conservation measures in both arid and watershed areas, and crop protection (e.g., Isham, 2002; Gebremedhin and Scott, 2003; Bluffstone and Köhlin, 2011; Kassie *et al.*, 2011). The attention given for adoption of SAPs practices up to now is very low.

The main aim of this study was to understand farmers' decision to invest on SAPs in the study area. For the data collected from survey, the analysis was done by descriptive statistics and binary logit model. Therefore, knowing the potential benefits that SAPs may preserves advocacy for stakeholders specially, the lion-share smallholder farming households involve in this sector. This creates a mutual policy designing for

cooperative action in terms of modifying the approaches to suit the farmers and changing the mindsets of farmers Joseph *et al.* (2012) to appreciate the technologies. In the presence of the yield maximizing farm inputs and information constraints farmers faced low productivity in developing countries, sustainable agriculture Kassie *et al.* (2011) that relies on renewable local farm resources presents desirable options for enhancing agricultural productivity.

The common types of conventional farming overwhelmingly observed in this district include frequent plough of the land without fallow, Crop residual removal and burning, free grazing communal land, and mono cropping hurt to the environment and contribute to low production and productivity. The adoption decisions in question relate to legume intercropping, legume crop rotations, compost use, minimum tillage, soil and water conservation practices, and introduction of improved seeds (improved crop varieties) (Bekele, Moti and Kassie, 2012; Teklewold, 2012).

Cognizant of the determinants of household choices of SAPs can provide insights into identifying target variables and areas that enhance the use of these practices. The overall goal of this study is to explore factors that facilitate or impede farmers' use of sustainable agriculture practices and its association in Dangila district. Specifically this study intended to address; assess factors influencing or facilitating for the use of selected SAPs in the study area and explore the association of between soil erosion and SAPs

3. Method and Materials

Dangila is one of the 167 districts in Amhara region. It is known to be the fourth largest in Awi zone with respect to its area coverage. Its border linked in East with Mecha district (West Gojjam), in West direction with Jawi district, south with Fageta Lekoma (Adis kidam) district and to the Northeast direction with Achefer district (West Gojjam). The district has a potential for production of many crops, vegetables and fruits and favorable for livestock husbandry. The district has 27 rural kebele administrative and six-urban kebele administrative. In this study, both qualitative and quantitative data were collected to hit the stated objectives from primary and secondary data sources. Primary data was collected from Focus group discussion, transect and key informant interview (to pre-test the questionnaire and to get in depth knowledge of farmers perception and decision to accept new technology and from survey by using structured interview schedule. Secondary data was reviewed and collected from district Agriculture office, Amhara Regional Bureau of Agriculture and Rural Development, Ministry of Agriculture and Rural Development, Relevant organizations, internet as well as published and unpublished documents and other pertinent documents.

For this study a multistage stratified sampling techniques was applied by a researcher. In the first stage, purposive sampling was utilized to select Dangila district because of the presence of the practice. In the Second stage, from this district among 27 rural kebeles administrative (RKA) stratified based on agro ecology then two kebeles' was selected. Finally, 120 sample households were selected by use of random sampling technique; from the two RKAs according to proportion to size the sample was taken.

3.2 Method of Data Analysis

The researcher for data analysis of this study was used both descriptive statistics (frequency, percentage, mean, standard deviation, t-test, χ^2 -test, and Econometric models. A binary logit model was used to explain factors impede or facilitate farmers investment decision on SAPs and helps to identify key variables affecting farmers' decisions to invest in this practice with the support of Stata software version 11.0 was analyzed.

3.3 Outcome and hypothesized explanatory variables

Dependent variable: It represents the observable decision of farmers investment on SAPs and otherwise, a dummy variable. This outcome variable will be analyzed by binary logit model that will take the value 1 invest, and 0 non-investor. It is hypothesized as farmers use SAPs more than one year and had practice at least two components of SAPs considered as investor and take the value "1", and a farmer not totally practiced or invest will considered as non-investor and take the value "0".

Independent variable: It was hypothesized as farmer's decision to invest or reject multiple components of SAPs to gain its profit will highly influenced by different factors. On the basis of previous studies, the researcher hypothesis these factors categorized as personal, socio-economic, institutional and biophysical in their characteristics will determine farmer's decision behavior to invest on SAPs. Based on the previous findings and the research objectives in the study area, the following 15 potential variables were hypothesized to determine the decision of investment sustainable agricultural practices.

Table 1: Definition and units of measurement of the explanatory variables

Variables	Definition and units of measurement	Expected signs
SEXHH	Sex of household head (1=Female , 2=Male)	+/-
AGEHH	Age of household head in years	+/_
EDUHH	Educational status of household head (0=illiterate, 1=literate)	+
PARTADMIN	Household head's participation in kebele (0=no, 1=yes)	+
DISTPLOT	Distance from residence to the plot(in minute)	+/-
FARMSIZE	Farm size in hectare	+/-
LANDTENURE	Land tenure (0=insecure , and 1=secure)	-
SOILFERT	Soil fertility status (0=non-fertile, 1=less fertile and 2=fertile)	+/-
TLU	Respondent's owned livestock (in tropical livestock unit)	+
SLOPEPLOT	Slop of the plot (0= flat and 1=otherwise)	+
PLOT	Number of plots (in number)	-
EXTENSION	Extension agent visit (0=not-visited and 1=visited)	+
LANDUSE	Land use (0=forest/woodland, 1=cropland and 2=pasture)	-
LABOR	Labor availability (0=not-available and 1=available)	+

Source: own extraction

4. Results and Discussion

This part is mainly concerned with the description and interpretation of the findings. As already noted, a semi structured questionnaire was administered to 120 sample households in Dangila district. The questionnaire was designed in such a way that it enables to collect data on personal and socio-economic attributes of farm households attitude for soil erosion as well as farmers' decision to invest components of SAPs with presence and / or the absence of institutional and extension supports .

4.1. Sex of Sample Household head

Gender of household head can influence adoption of new technology either being female headed or male headed. Male headed households have better chance for investing on land conservation because of the position they have and access of information as compared to their counter parts in the study area. Out of total sample respondents, female- headed accounted for only 17.5%, while the rest 82.5% were male headed, respectively. Among female-headed respondents 20.9%, 6.9% were non-investors, and investors of sustainable agricultural practices (SAPs), respectively (Table 2). Accordingly, from total sample respondents 75.8% were non-investors and 24.2% were investors of among multiple components of SAPs.

4.1.2 Age of household head

The mean and standard deviation age of sample respondents were 46.2 and 11.1, respectively. The age composition of sample respondents were revealed significant difference of the investors, and non-investors, 54.4 and 41.6 mean of years, respectively. The maximum age observed was 81 and the minimum was 24 years (Table 3).

Increase age of farmers already engaged in farming operation, it gives time for farmers to learning from directly observed and evaluate problems and profits of the crop produce. As the mean of age revealed that investors on SAPs are relatively older than non-investors of among multiple components of SAPs. The results of the t-test (-3.872) indicate that age has positive and significant difference with investors of SAPs and otherwise.

4.1.3 Educational level of the household heads

As education status of household head increases, it is considered to increase the transfer of relevant information, awareness and mutual understanding about new idea, technology and innovation and as a results increase farmers' knowledge about the benefits, constraints and opportunities gain from implementing sustainable agricultural practices. Education provides something for farmers to arrest loss of soil fertility using various ways of soil fertility improving practices, productivity maximizing at the same time keeping soil health, traditional and improved soil conserving technologies, compost and agronomic practices.

Out of total respondents 48.3% were literate and 51.7 were illiterate (Table 5). This means as sample respondents not educated it may increase the possibility of farmers' rejection of new technology and

innovation and if educated more, otherwise is true. As the results of chi-square ($X^2=11.662$) revealed that there is positive relationship between education and farmers involvement in investment on SAPs.

4.1.4 Distribution of sample households by Family Size

The total family sizes of sample household were found to be 256 and 483 in Demisa and Wufta-Datie kebeles, respectively. In the study area, household head with family size of less than or equal to 2 members constitutes 2.50%; 3 to 5 members constitute 35%; 6 to 10 members constitute 60.8 % and 11 and above members constitutes 1.67 % (Table 7).

The average family sizes for adopters were found to be 6.61, for partially-adopters were 6.03 and that of non-adopters were 6.08. This is slightly above national average number children of one woman delivery between 15-49 ages 5.1 children. The maximum and the minimum household size of the sample respondents were found 11 and 2. About 17.5% of the household heads of non-adopters, 31.7% of partially-adopters and 13.3% of adopters had above 6 numbers of family members. The economical active family members are inputs and advantageous for farm worker and otherwise is burden and have negatively influence for farm technology adopters.

To illustrate this the one household who has more economical inactive family members, the household head always enforced to cultivate the same crop from season to season and year to year in order to close family members mouth. In contrary, economically active family members are assumed as labour. Thus, family members have indeterminate influence on adoption of CA in the study area.

4.1.5 Land Characteristics

The land size holding of the sample farmers ranges from 0 to 3 hectares. The average land holding is known to be 2.2 hectares with a standard deviation of 0.2 hectares. This is slight greater than national average 1.5 hectare of land. The survey result indicated that about 15.8% of the respondents had a farm size of 1 hectare or less, 40% of respondents had a farm size ranges 1.0-2.0 hectares and the rest 44.1% of respondents had farm size of greater than 2 hectares of land. On the average investors hold more land 2.4 hectare, and non-investors 2.0 hectare of land, respectively (Table 8). This illustrates as household own more unit of land, the household inspired to make decision to adopt and invest new agricultural technology alternative.

4.1.6. Distribution of sample household by land tenure

Farmer's perception to soil erosion and the measures they take will depend on their feelings of security of land tenure. According to the survey results indicated 68.3% of respondents feel insecure and the rest 31.7% feel secure tenure right, respectively.

Feelings of land tenure	Non-investors		Investors		Total		X ² -value
	No	%	No	%	No	%	
Insecure	61	50.8	21	17.5	82	68.3	0.294
Secure	30	25	8	6.7	38	31.7	

Source: own survey, 2014

4.1.7. Soil Fertility status

In the study area, farmers' perception to new technology can be seen with knowledge and understanding of soil fertility status, especially they compare with crop produce either increases or decreases. Farmers perceive and rated soil fertility of their land as fertile, less fertile and not fertile in the study area.

On the other hand, these farmers reflected their position and knowledge of soil erosion and nutrient depletion by actions they will ready for adoption of any soil improving and maximizing crop produce if the soil is highly depleted and decrease crop yield. This indicates that farmers' perception to their surrounding is good to keep soil fertility as the reaction they took to keep the produce in a way they want to produce the amount and type of crop. The survey result indicated that out of total respondents, 17.5% replied as, 73.3% less fertile and 9.2% replied as non-fertile, respectively. As the chi-square result (6.014), indicated that there is positive and significant association between soil fertility decline and investment of sustainable land conservation activities at 5% probability level.

Table 8: Distribution of land holding size with adoption categories

Soil fertility attributes	Non-investors		Investors		Total		X ²
	No	%	No	%	No	%	
Fertile	18	19.8	3	10.3	21	17.5	6.014**
Less fertile	62	68.1	26	89.7	88	73.3	
None fertile	11	12.1	0	0	11	9.2	

Source: survey result, 2014

4.1.4.1 Soil and water conservation Practices

In the study area, both traditional and improved soil management and soil conservation measures practiced, include trench, grass vegetation (water logging plot), broad bed maker (BBM), check dams, compost making, manure use, mulching & crop residues, traditional ditches, terracing, and soil bund, stone bund when excess stone exist at the plot and high runoff prone plot. Trenches are constructed inside the plot to harvest water serve as reserve for crops grown with shortage of rainfall in dry lands. Elephant grass and sasbanean are planted for multipurpose in water logging farm lands. BBM is also used to as ditch tied with local plowing instrument (maresha) to form soil bed during plowing time.

According to reports of Dangila district Agriculture and Rural Development office in the last 5 years except 2010 unavailable data at the time of data collected; about 11977.75 ha terrace of which 3216.9 were maintained, 636 km covered diversion ditch made of which only 29.5 km maintained, 50.445 km trench constructed of which 7.55km maintained and 478.45km mask broad bed maker (BBM) were done. However, other SWC measures were done like communal terrace, check dams, grass vegetation with and without terrace and stone and soil bunds but quantified into figure data were unavailable at the time of

survey. Based on the Natural Resource Management Department classification for construction of SWC technology, plots based on slopes (which is measured in degree) were classified as Meda for Flat (0 - 2) and Gentle sloping (3 - 6) plots, Zekzaka for moderately steep sloping (6 - 15), and, Kulkulet for steep slopes (15 - 30) and Gedelama for very steep slopes and mountain (>30).

According to field observation and sample respondents reported as shown in the Table 34, 11.7% of plots were flat, 25% of gentle, 34.2% of moderately steep, 18.3% of steep slope and the rest 10.8% were mountainous. The highest portions of investors' plots were under steep slope 34.5% and moderately steep 34.5% categories, respectively. As the results of chi-square (9.592) indicated that there is strong positive association between increment of the degree of slope and land conservation measures taken by farmers

4.1.2.7 Labour availability

Family labor force is one of the productive forces in addition to land and capitals in agricultural activities such as; land preparation, seeding, weeding, harvesting and cattle rearing and ranching. In addition to the household head, other members of a farm family also work on the farm and off-farm. Usually husband, wife, son and/or daughters share farm activities. Women are actively involved in cropping activities during peak seasons, particularly in time of planting / sowing weeding and harvesting. On the other hand, adult men are responsible for almost all farm operations although their participation in the household activity is limited. The peak months are June, July, August, September, November, December and January.

Out of total sample respondents 85.8percent reported as they face labour shortage problems and the remaining 14.2 not encounter labour shortage problem. Among sample respondents face labour shortage 29.1% were non-adopters, 51.5% were partially-adopters and 19.4% were adopters. Based on the peak agricultural season sample respondents reported that labour shortage occurrence 46.7% during land preparation, 83.5 during seeding, 71.7% during weeding time and 80% were during collecting and harvesting of crop to granary. With regard to labour availability 65% of sample respondent were reported as difficult to get and 35% were reported as easily access at the time of labour requirement. According to the results of chi-square revealed that (6.324) there were significant relationship between adopters of CA with labour availability as compared to non-adopters and partially-adopters at 5% probability level.

Distance to the Plot

With reference to distance traditionally land users classified their plots into two. Plot near to homesteads called back yard, whereas the farmstead plots are referred as Ersha. Plot distance from the residence of the farmer affects, management attention, of the farmer by affecting the average time need to travel for applying manure and cattle dung, tree planting, and for SWC construction and timely maintenance.

The survey result indicated that some plots were located at considerable distance from homestead, that will take up more than 60 minutes walking and the minimum was located at the garden. About 94.2% of the plots are located at one way walking distance of less or equal to an hour. The average time for non-investors and the dwelling was 36.8 minutes and for investors and their dwelling was 30.1 minutes. The t-test revealed that there is significant mean difference between non-investors and investors plots with respect to plot distance at 10% probability level.

Summary of Results descriptive Statistics

4.1.6 Summary of Results of Descriptive Statistics

4.1.6.1 Tests of the mean and frequency differences of variables

The mean values of the continuous variables in both non-adopter and partially-adopter/adopter groups were compared using t-test. The test is used to indicate the mean differences between groups. That is why the test was used to identify the mean difference between non-adopter and partially-adopter/adopter respondents. The t-values of 7 continuous variables were computed and out of these variables the two groups were found to be different significantly in 4 of them.

Table 41: Mean differences of continuous variables

Continuous variable	Non-adopters		Partially/adopters		Total		T-value
	Mean	SD	Mean	SD	Mean	SD	
AGE(in years)	47.7		44.7		43.7	10.9	-1.408**
FAMSIZE	6.08		6.19		6.17	1.99	-0.282
FARMEXP	21.1		21.8		21.7	9.52	-0.324
TOTALAND(ha)	1.58		1.95		1.83	0.93	-2.034**
TLU	7.39		8.90		8.43	4.46	-1.727**
DISTPLOT	38.9		27.5		31.0	24.8	2.394***
MAINMARK	149.2		151.3		150.7	27.7	-0.388

*** Significant at 1% probability level

** Significant at 5% probability level

Source: own survey, 2013

Accordingly, the mean differences of the variables of age of the household head (Age), household total land holding (TOTALAND) and total tropical livestock unit (TLU) were significant at 5% probability level where as the distance between farmers resident to the plot was significant at 1% probability level. In this respect, a chi-square test was used to examine the existence of statistically significant relationships between the three groups. Accordingly, 7 discrete variables were considered and the two groups were found to be different in terms of 3 of the 7 variables (Table 42). More specifically, the chi-square test reveals that two, one and one discrete variable showed statistically significant differences between the three groups at 1%, 5% and 10% probability level, respectively.

Table 42: Correlation of discrete variables via adoption category

Variables		Non-adopters		Partially adopters		Adopters		Total		X ² -value
		N	%	N	%	N	%	N	%	
GENDER	1	8	42.1	10	52.6	1	5.26	19	15.8	3.238
	2	29	28.7	50	49.5	22	21.8	101	84.2	
EDULEVEL	0	26	41.3	30	47.6	7	11.1	63	52.5	17.013**
	1	3	12.5	12	50.0	9	37.5	24	20.0	
	2	5	26.3	12	63.2	2	10.5	19	15.8	

	3	3	33.3	3	33.3	3	33.3	9	7.50	
	4	0	0.00	3	60.0	2	40.0	5	4.17	
CULTIVATED	1	11	32.4	11	32.4	12	35.3	34	28.3	
	2	11	36.7	17	56.7	2	6.67	30	25.0	11.627*
	3	13	25.5	30	58.8	8	15.7	51	42.5	
	4	2	40.0	2	40.0	1	20.0	5	4.17	
SOILFERT	1	9	42.9	9	42.9	3	14.3	21	17.5	
	2	27	30.7	44	50.0	17	19.3	88	73.3	3.934
	3	1	9.09	7	63.6	3	27.3	11	9.17	
PARTADMIN	0	26	55.3	17	36.2	4	8.51	47	39.2	22.56***
	1	11	15.1	43	58.9	19	26.0	73	60.8	
GRAZING	0	15	29.4	29	56.9	7	13.7	51	42.5	2.264
	1	22	31.9	31	44.9	16	23.2	69	57.5	
LABOUR	0	7	41.2	7	41.2	3	17.7	17	14.2	1.019
	1	30	29.1	53	51.5	20	19.4	103	85.8	
TRAINING	0	15	53.6	11	39.3	2	7.14	28	23.3	9.717***
	1	22	23.9	49	53.3	21	22.8	92	76.7	
FERTILIZER	0	3	30.0	4	40.0	3	30.0	10	8.33	0.889
	1	34	30.9	56	50.9	20	18.2	110	91.7	

*** Significant at 1% probability level

** Significant at 5% probability level

* Significant at 10% probability level

Source: own survey, 2013

4.3 Econometric model results

Binary logit model was used to identify potential variables determine farmers investment decision on sustainable agricultural practices. Multicollinearity diagnostics test was done to check the presence of high collinearity among and between each independent variable. Different methods were employed to check the presence of multicollinearity for continuous and discrete explanatory variables. Variance inflating factor (VIF) was used to check for multicollinearity problem among and between continuous variables. For continuous variables coefficient of contingency (CC) was computed using Stata software. For this case, based on the results of the diagnostic tests for both discrete and continuous variables, no variable was found to be highly correlated or associated with one or more of other variables.

Fourteen variables were hypothesized to influence farmers' decision to invest on SAPs' and all variables were entered to the model. Out of the variables analyzed, the coefficients of 11 variables, namely sex, age, participation in kebele, soil fertility status, slope of the plot, number of plots, plot distant, land use, labor, TLU, and extension contact were significantly different from zero and found to be significant to affect the investment on SAPs' of the households in the study area. The maximum likelihood estimates of the binary logit model result shows that the household investment on SAPs' is determined by the interaction of several potential socio-economic factors. To check measure of goodness of fit in logistic regression analysis, the likelihood ratio test (LR) that follows chi-square distribution with degree of freedom (DF) equal to number of explanatory variables included in the model (Gujarat, 2003). Accordingly, the chi-square computed shows that, the model was significant at 1% significance level. This indicates that the null hypothesis stating the

coefficients of explanatory variables less the intercept are equal to zero was rejected and the alternative hypothesis of non- zero slope was accepted.

Another comparatively simple measure of goodness of fit was the count R^2 obtained by dividing the number of prediction to the total number of sample. In this regard the count R^2 was calculated to be 51.9 (78 out of 91 for non-conserving and 20 out of 29 for land conserving households) that indicate the model correctly predicts the observed values. The sensitivity, the number of investor households correctly predicted by the model was 84.0 percent and specifies, the number of non-investor households correctly predicted was 92.7 percent observation. Thus the model predicts both non-investor and investor household groups fairly and accurately.

Table 32: Empirical result of binary logit model

Variable	Coeff	Odds ratio	S.E	Significance level
_CONS	-15.369		3.965	0.000
SEHH	3.540	34.474	1.588	0.018
AGEHH	0.158	1.171	0.748	0.001
EDUHH	0.015	1.016	1.240	0.984
PARTADMIN	3.374	0.034	0.405	0.007
FARMSIZE	0.219	1.245	0.822	0.588
LANDTENURE	-1.087	0.337	0.727	0.186
SOILFERTLITY	1.564	4.780	0.020	0.031
SLOPEPLOT	-2.767	0.131	0.449	0.011
PLOT	-2.445	5.087	0.671	0.000
DISTPLOT	-0.021	0.980	0.090	0.100
LANDUSE	-1.327	0.265	1.006	0.048
LABOR	1.570	25.406	1.519	0.045
TLU	-0.161	0.851	0.134	0.073
EXTENSION	3.359	28.774	1.021	0.001

Source: Own survey, 2014

Sex: Sex of household head was significant at 5% significance level and positively related with investment of SAPs' the households in the study area. This implies that, other things remaining constant, male-headed households are more likely to be investors on SAPs' than female headed households. The possible

explanation for this would be male headed households have better access to farmland, labour, agricultural technologies and improved practices which all these increase crop yield and thus more investor on SAPs' than female headed households by a factor of 34.474.

Age: This variable is significant at 1% and positively related to investors of SAPs' in the study area. This implies that, other things remaining the same, as age of house hold head increases by one year, the likely probability to become investor increases by a factor of 1.171. An increase in age of the household gives the chance to evaluate pros and cons of sustainable agricultural technologies. Thus, an increase in age is related negatively with non-investor on SAPs' of households. This finding was in agreement to some research evidences, that age has positive and significant impact on investment of land conservation technologies.

Participation in kebele administration: This variable was strongly significant at 1% significance level and positively related to investors in the study area. This implies that, other things remaining constant, as a farmer get position and participate in kebele administration, it gives the chance to familiar with new information and continuous to update as compared to non-participant being investor will be decrease 0.034 as not participate in kebele administration.

Soil fertility status: This variable was significant at 5% significant level and positively affects investor farmers in the study area. This implies that, assuming other things constant, as the soil fertility level decrease by one category from fertile to less fertile; the probability of the farmer's decision to invest SAPs to be increase by a factor of 4.780 and the reverse is true.

Slope of the plot: This variable was significant at 1% probability level and negatively affects investor farmers as the degree of slope increases. This implies that, the remaining things constant, as the slope of the plot increases by one degree the probability of the farmer become investing on among multiple components SAPs'. As slope of the plot increase by one degree the respondent farmer to be investor likely decrease by a factor of 0.131 as compared to non-investors.

Number of plot: This variable was strongly significant at 1% significant level and negatively affects investor farmers when the number of plot increases. This implies that, assuming the remaining things constant, as the number of plot increases by one plot farmers exposed to transportation transaction cost on foot. As the number of the plot increase by a unit the household to be investor decrease by a factor of 5.087 as compared to non-investor farmers.

Distance to the plot: This variable was significant at 10% significant level and negatively affects investor farmers as the distance increases by a minute in the study area. This implies that, the remaining things the same, as the distance of the plot to the resident increases by one minute the probability of farmers investing SAPs' on his/her plot will likely decrease by 0.980 as compared to non- investor farmers.

Land use: This variable was significant at 5% significant level and negatively influences farmer's decision to investment on sustainable land conservation strategies. This implies that, the remaining things constant, as the land use changes by season from crop land to wood or from crop land to grazing land the probability farmers investing on SAPs' will likely decrease by 0.265 as compared to non-investors and , otherwise.

Labor availability: This variable was significant at 5% level of significance and positively influences decision of farmer's investing on SAPs' as they have one more labour unit. This implies that, assuming other things remaining the same, as labor availability increases by one unit the probability of farmers shift to investing on SAPs' will likely increase by 25.406 as compared to non-investors.

Total livestock owned: Livestock had a significant and negative impact on the household adoption of SAPs in the study area. The negative sign of slope coefficient indicates that when livestock owned increase by one TLU, the probability of a household to become investor of SAPs', decrease by a factor of 0.851. The possible explanation for this result is that as farmers have large number of livestock (ox, cow, heifer, calf, donkey, goat, sheep and chicken) they become in low position to be investor than farmers who have few livestock.

Moreover, livestock (ox) serve as non-human labour, and source of dung i.e., draft power in land preparation that directly contributes to supply of labor and organic fertilizer.

Extension contact: This variable had significant and positive impact on farmers motivation to invest on SAPs' in the study area. This implies that, the remaining things constant, as the frequency of training and extension contact and /or visit of farmers by extension agents' and experts either from district or zonal level changes farmers mindset and increase knowledge of land conservation technologies. When extension contact and visit increases by frequency of contact or visit the household to be investor increase by a factor of 28.774 as compared to non- investor

5 Conclusions

Land degradation is the process of reducing or depleting the productive capacity of land caused by improper and poor farming system, improper land use practices, deforestation and overgrazing. This outdated and tied with bottlenecks, agricultural sector manifested by coupled with population growth at a faster rate, soil fertility depletion and decrease of crop yield, motivate to adopt conservation agriculture practices, which is agricultural-environmental management at short term or long term will be taken as a panacea.

This study has tried to look personal, socio-economic, biophysical and institutional and other related factors, which can affect farmers' investment decision on sustainable agricultural practices. For this, data were collected from 120 farm households drawn randomly from Dangila district. The primary data were collected from semi-structured questionnaire and FGDs. Secondary data were collected from relevant GOs and NGOs and from pertinent documents to supplement the data obtained from survey. Results of this study indicated that sex of household head, age, participation in kebele administration, slope of the plot, distance to the plot, total livestock owned, land use, number of plot, labour availability and extension contact were significantly affects farmers decision to invest on SAPs'.

Thus, the extension system operating in the areas and elsewhere, need to be strengthened further to increase the flow of information for rural development. Participatory community based approaches involving the stakeholders in planning and implementation are necessary in order to create a higher ownership attitude. Clear messages on conservation agriculture practices should be included in the normal extension packages

and training of both village extension workers and farmers should be emphasized so as to improve their understanding and skills.

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Fertility Tourism and Commercial Surrogacy in India

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ABSTRACT

The term 'fertility tourism' or 'reproductive tourism' has its origin from the wider term 'Medical Tourism'. More than 9% of the couples around the world are infertile, and with the upcoming gay/lesbian rights and single parenting, they all can fulfil their desire to have their own families through highly developed medical technology, ART (Assisted Reproductive Technology), for which they travel globally choosing one or other country where this facility is easily accessible through IVF (in vitro fertilization) or Surrogacy. Surrogacy is renting a woman's womb to have the child, who then is relinquished by her for the intended parents/parent. The job can be paid or performed on altruistic bases. In India where the commercial surrogacy industry has grown enormously in the last few years reaching around five billion dollars has given a big boost to fertility tourism. India is one of the favourite destinations of fertility tourists for various reasons like high tech and affordable cost, talented and experienced doctors, easy availability of gametes and surrogate mothers, and less legal complications. Looking at the increasing demand of the people, the tourism department of India is encouraging websites and medical travel agencies for all kinds of patients. The government too is formulating the surrogacy laws to control the clinics for any kind of illegality as well as protecting the rights of all involved in it (surrogate mother, intended parents and child). Anyhow, fertility tourism is not without complications. Surrogacy challenges the concept of family, motherhood and the traditional role of mother, leading to moral and ethical problems. No less are feminist concerns regarding the commodification of female body. The need is to reach a solution where all these complexities be settled and fertility tourism brings happiness to all with the sweet memories of the country where one fulfilled one's dream... creating a bond never to be broken.

Keywords: fertility tourism, surrogacy, IVF, intended parents, altruistic, genetic, gametes, feminist, commodification

MENTAL HEALTH OF THE ELDERLY

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ABSTRACT

This research is a documentary research. The purpose of this paper is to study research relating to Mental health of the elderly in these following aspects; 1) Research method used to conduct health behavior of the elderly research, 2) Mental health of the elderly of the elderly. Data collection was from online research between January 15-20,2017. The research instrument is data record form which was created in accordance with research purposes. Quantitative data was analysed by using frequency and percentage. Qualitative data was analysed by content analysis and typology. The result showed that the research about Mental health of the elderly that was searched has 13 topics. There was 100% of survey research. There were 7,258 elders participating which their age are 60-94 years old. Research area was a study in all regions of Thailand covering 39 provinces. Research instrument were questionnaire and interview form about Mental health of the elderly, such as 'Thai Mental health Indicator TMHI-15', 'Suanprung Stress test-20 (SPSR-20)', 'Thai Geriatric Depression Scale: TGDS'. Most of the elderly's mental health is as same level as normal people. The research found that the elderly have high level of stress and a few number of the elderly have depression. For factors relating to mental health of the elderly, the research found that the elderly marital status, living with their descendant, income and physical illness are the factor relating to mental health of the elderly.

Keywords: Elderly, Mental Health, Elderly Mental Health

INTRODUCTION

Thailand's population structure has changed rapidly in the last 3-4 decades. The number of elderly people has increased which leads the country to ageing society. In 2000-2001, more than 10 percent of Thai population is 60 years old. From the Thai population projection, from 2015 to 2030, Thailand will be in "ageing society" condition which is the situation that the country has elderly people who are 60 years old or older more than 10 percent compared to population in other age ranges in the same area. In the next 10 years, the country will become completed ageing society which more than 20 percent of population is elderly people who are 60 years old or older when comparing to population in other age ranges in the same area. The country is expected to be super ageing society in less than 20 years when elderly people are more than 28 percent. (1)

The elderly are considered being a vulnerable group. Their bodies gradually deteriorate and have both physical and mental changes such as having dry skin, slower response to stimulus, degenerative eyesight, poor nervous system, delicate bones, poor muscle strength, and having degenerating organs. (2) The nationwide survey about health condition in the elderly (3) indicated that a number of the elderly have experienced some types of ailment such as hypertension, diabetes, knee Osteoarthritis and others. The survey also showed that some of the Thai elderly have negative health behaviors. Contrary to negative health behavior, positive health behavior includes exercising at least 3 times a week, drinking 8 or more glasses of water per day, consuming vegetable and fruit regularly, avoiding drinking alcohol and smoking. Ministry of Public Health has a health development plan which its purpose is to make the elderly live their lives properly (4). Therefore, health promotion in the elderly is necessary. The elderly should be promoted to be an active

ageing. World Health Organization (5) has defined three elements of being an active ageing which are 1) being healthy ageing. 2) having security in life. 3) having participation. Having negative health behavior results in several risk factors in physical health. Researcher has been interested in studying some research which relates to mental health of the elderly for collecting knowledge, using it as basic information for applying in health promotion in the elderly and making them an active ageing, all of which lead to better quality of life.

OBJECTIVES

To study the research about mental health of the elderly in these following aspects;

1. Research method used in mental health of the elderly research.
2. Factors relating to mental health of the elderly.

LITERATURE & THEORY

This research has reviewed the concept that relates to the exercise promotion and will concisely present as follows;

1. Situation of the elderly in Thailand

Nowadays, Thailand is an ageing society which its population has increased rapidly since 2000 when the proportion of the elderly (60 years or older) reaches 10 percent of country population and the country will become "completed ageing society" when percentage of the elderly population reaches 20 in 2021. Moreover, the country is expected to be a super ageing society in less than 20 years when percentage of the elderly population is 28 percent of all country population. (6) Now that the elderly have some changes in both physiological and mental health resulting from degenerating systems in their bodies, promotion of exercise is necessary. One of the proper activities is exercise promotion for good health in the elderly.

2. Mental Health of the elderly

The Government's policy is to focus on taking care of the elderly's health by imposing strategy about building strength and emphasizing participation of local, community, and related sectors. One of the important things is to encourage the elderly to have a good health, to slow down ageing, and to live their routine lives on their own. (7). World Health Organization (5) has mentioned three elements to improve an active ageing in the elderly which are 1) being healthy ageing. 2) having security in life. 3) having participation. Healthy ageing means having good physical and mental health. The elderly are regarded as a mental-vulnerable group as a result of loss status in society and economy which results in dependence of other people. If they cannot accustom themselves to those new situation, they may face the mental health problem. There are some changes in the elderly which are 1) Social change - The elderly may lose their social status and feel unimportant. Moreover, they may lose self-esteem which leads to poor self-image and begin to feel that they are trouble to their family in addition to economic status loss. 2) Emotional and mental change - This change results from self-concept changing, together with the reduction in acceptance, recognition and learning. In term of memory, the elderly have good memory about their past. Still, They tend to remember new memory less (8, 9). Mental health problem in the elderly can be noticed in daily life when eating, sleeping, expressing, and illness which cannot be identified the cause such as muscle aches and headache, and emotion disorder such as being grouchy, sad, and anxious. Those changes affect the elderly's health especially mental aspect. Therefore, the understanding of the elderly's health is very important in order to help improve their mental health.

3. This research collected and analysed data from 13 researches about mental health of the elderly.(10-22)

METHODOLOGY

1. Research Method

This research is a documentary research which analysed the related work about promotion of exercise for the elderly publishing online and was searched between January 7-12, 2017. The samples were research reports and research articles which researcher searched from online system in 18 topics about "health behavior of the elderly research"

2. Research Instrument

Instrument used in this research is record form which was created in accordance with research purposes. The research instruments include note taking issues as follows; 1) Research method, samples, research area, research instrument, year of publishing 2) Health behavior of the elderly.

3. Construction of the instrument

3.1 Study data from documents, textbooks, related research about situation of the elderly, health problems in the elderly and health behavior of the elderly.

3.2 Determine the structure of record form in accordance with the research purposes.

3.3 Create issue that have to be studied in record form for writing down findings from each topic that have been read and analysed in research.

3.4 Check the accuracy which must cover the issues as purposed by the expert of the qualitative research.

3.5 Improve record form to be clearer and more comprehensive in accordance with the expert.

4. Data collection

4.1 Carry out the research in topic relating to the health promotion for the elderly.

4.2 Read and analyse each topic carefully.

4.3 Record findings that are acquired from research following the record form created by researcher in accordance with each issue of research purposes.

5. Assessment and data analysis

5.1 Assess all of data from record form in each issue in accordance with research purposes.

5.2 Analyse and synthesise the findings in each issue from record form by qualitative research method consisting of content analysis and typology. Analyse by quantitative research method consisting of simple statistics which is frequency and percentage, presenting each issue in accordance with research purposes.

RESULTS

1. Research methodology that was used to conduct mental health of the elderly research

1.1 Research methodology - There was 100% of survey research. 11 researches were survey research and 2 researches were comparison research.

1.2 Sample - all of 13 topics of research were conducted among the elderly whose age are more than 60 years old. There were 7,258 elder people who are 60 - 94 years old participating in this research.

1.3 Research area - Research was conducted in all regions of Thailand; 2 provinces in the northern part, 3 provinces in the northeastern part, 2 provinces in the southern part, and 4 provinces in the central part of Thailand and Bangkok.

1.4 Research instruments were questionnaire about mental of the elderly, 4 researches developed by the researcher, 4 researches used Thai Mental Health Indicator - 15 (TMHI - 15), 4 researches used Thai Geriatric Depression Scale: TGDS and others.

1.5 Ethical consideration- There were 2 researches which proposed to the Ethics Committee in human research.

1.6 Year of publishing - There was research published in 2009-2016; 1 research in 2009, 5 research in 2012, 2 research in 2013, 1 research in 2014, 4 research in 2015, and 1 research in 2016.

2. Mental health of the elderly

2.1 General mental health of the elderly - There were 2 researches which found that the elderly's mental health is as same level as normal people, studied by evaluation form called 'Thai Mental health Indicator TMHI-15'. Another research found that the elderly's health is at average level by using questionnaire.

2.2 Stress - There was 1 research which found that the elderly have high level of stress by using Suanprung Stress test-20 (SPSR-20) as an instrument to measure stress.

2.3 Depression - There were 3 researches which found that a few number of the elderly have depression by using Thai Geriatric Depression Scale: TGDS as an instrument. Another research collecting data in the northeastern part of Thailand found that 72.3 percent of the elderly have depression.

2.4 Factors relating to mental health of the elderly

2.4.1 Personal status and illness - There were 2 researches concluding that there was a link between marital status and mental health condition. One research found that the elderly who are single tend to have better mental health than married people while another research showed that marital status doesn't affect mental health of the elderly. Two research found that the elderly who live with their descendant are more likely to have better mental health than those who live alone or live in elderly care. Six researches found that the elderly who have their own income are more likely to have better mental health than those who don't have their own income. Two researches found that women elderly tend to have more stress than men while Three researches found that both men and women have same level of stress. In term of age, four researches found that the elderly whose age are less than 70 years old have better mental health than those who are more than 70 years old. Two researches showed that the educated elderly have better mental health than those who have few access to education. Four researches found that physical illness of the elderly affects their mental health.

2.4.2 Family and social relationship - There was a research which found that family has an impact on mental health of the elderly. Another research found that the elderly who have participation in their community have better mental health than those who don't have participation.

CONCLUSION AND FUTURE WORK

1. The result showed that there were 2 researches managed to ask for approval from The Ethics Committee in human research. Since the elderly are consider as a vulnerable person that need to be protected, researcher has taken their right to participate into account to propose research outline and questionnaire before collecting data. All of these are in accordance with global standard in participator protection. All sectors involving in research must have their own ethics committee in human research to take a responsible for considering research, promoting and developing human right and security of participator, along with developing research system by sticking with global ethics principle.(23,24)

2. The result showed that personal status especially economic aspect, growing age, family, social activity, and physical illness have an effect on mental health. However, mental health problem can be resulted from several reasons, from physical health deterioration, less capability of doing their daily activities, less income which makes them need some support from their family, to less power of negotiation.

All of these can lead to poor self-esteem and higher level of stress. The elderly who can accustom themselves to physical and mental changes are more likely to have better mental health. In contrast, the elderly who cannot accustom themselves to those physical and mental changes will encounter mental health problems. (25) Therefore, next research should focus on social activity of the elderly such as finding part-time job and building social relationships covering 4 domains of mental health which are mental condition, mental efficiency, mental quality, and supporting factors. (19) Moreover, health behavior promotion in the elderly should focus on all physical, mental, and social aspects as Anchalee Jantapo (26) has promoted life quality of female prisoners who have faced cancer by using Arokayasal Wat Kampramong Guideline in order to promote all of three aspects of health at the same time.

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HEALTH PROMOTION FOR THE ELDERLY

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ABSTRACT

This research is a documentary research. The purpose of this paper is to study research relating to health promotion for the elderly in these following aspects; 1) Research method used in health promotion for the elderly research, 2) Activities of health promotion for the elderly, 3) The result that the elderly have gained from health promotion. Data collection was from online research between February 1-5,2017. The research instrument is data record form which was created in accordance with research purposes. Quantitative data was analysed by using frequency and percentage. Qualitative data was analysed by content analysis and typology. The result showed that the research about health promotion in the elderly that was searched has 14 topics. 8 of them are experimental research, one group pre-post test design, 3 of them are two group pre-post test design and 3 of them are Partipatory Action Research. For participants, there were 896 elders participating which their age are 60-75 years old. Research area was a study in 12 provinces in every region of Thailand, mostly in the Central part of Thailand. Research instrument was health promotion program. The activities for health promotion include lecture, practice and group activity about health promotion. The result that the elderly have gained from health promotion showed that they had better knowledge about diet, exercise, stress management, and accommodation. The elderly had significantly better health behavior than the period before taking part in program and more social activities after taking part in group activity.

Keywords--Elderly, Health Promotion, Elderly Health Promotion

INTRODUCTION

Thailand's population structure has changed rapidly in the last 3-4 decades. The number of elderly people has increased which leads the country to ageing society. In 2000-2001, more than 10 percent of Thai population is 60 years old. From the Thai population projection, from 2015 to 2030, Thailand will be in "ageing society" condition which is the situation that the country has elderly people who are 60 years old or older more than 10 percent compared to population in other age ranges in the same area. In the next 10 years, the country will become completed ageing society which more than 20 percent of population is elderly people who are 60 years old or older when comparing to population in other age ranges in the same area. The country is expected to be super ageing society in less than 20 years when elderly people are more than 28 percent. (1)

The elderly are considered being a vulnerable group. Their bodies gradually deteriorate and have both physical and mental changes such as having dry skin, slower response to stimulus, degenerative eyesight, poor nervous system, fragile bones, poor muscle strength, and having degenerating organs. (2) The nationwide survey about health condition in the elderly (3) indicated that a number of the elderly have experienced some types of ailment such as hypertension, diabetes, knee Osteoarthritis and others. The survey also showed that some of the Thai elderly have negative health behaviors. Contrary to negative health behavior, positive health behavior includes exercising at least 3 times a week, drinking 8 or more glasses of water per day, consuming vegetable and fruit regularly, avoiding drinking alcohol and smoking. Ministry of Public Health (4) has a health development plan which its purpose is to make the elderly live their lives properly. Therefore, health promotion in the elderly is necessary. The elderly should be promoted to be an active ageing. World Health Organization (5) has defined three elements of being an active ageing which are

1) being healthy ageing. 2) having security in life. 3) having participation. Having negative health behavior results in several risk factors in physical health. Researcher has been interested in studying some research which relates to health promotion in the elderly for collecting knowledge, using it as basic information for applying in health promotion in the elderly and making them an active ageing, all of which lead to better quality of life.

OBJECTIVES

To study the research about health promotion in the elderly in these following aspects;

1. Research method used in health promotion in the elderly research.
2. The activities for health promotion in the elderly.
3. The result that the elderly have gained from promotion of exercise.

LITERATURE & THEORY

This research has reviewed the concept that relates to the exercise promotion and will concisely present as follows;

1. Situation of the elderly in Thailand

Nowadays, Thailand is an ageing society which its population has increased rapidly since 2000 when the proportion of the elderly (60 years or older) reaches 10 percent of country population and the country will become "completed ageing society" when percentage of the elderly population reaches 20 in 2021. Moreover, the country is expected to be a super ageing society in less than 20 years when percentage of the elderly population is 28 percent of all country population. (6) Now that the elderly have some changes in both physiological and mental health resulting from degenerating systems in their bodies, promotion of exercise is necessary. One of the proper activities is exercise promotion for good health in the elderly.

2. Health Promotion for the Elderly

The Government's policy is to focus on taking care of the elderly's health by imposing strategy about building strength and emphasizing participation of local, community, and related sectors. One of the important things is to encourage the elderly to have a good health, to slow down ageing, and to live their routine lives on their own. (7). World Health Organization (5) has mentioned three elements to improve an active ageing in the elderly which are 1) being healthy ageing. 2) having security in life. 3) having participation. Healthy ageing means having good physical and mental health in these following aspects; eating clean and proper 5 food groups, drinking pure water, avoiding strong-flavoured food, smoking, and alcohol, having regular exercise, having adequate sleep which is 7-8 hours a night, and practicing mind to embrace reality in life (3). Moreover, healthy ageing includes being responsible for one's health and having health checked regularly. Another element is having security in life which covers economic security, saving for living, accommodation, and health insurance. The third element is having participation which means taking part in social activities, having relationship with family or community, and being a member of favourite organization. This research is the study of related research about health promotion in the elderly.

3. This research collected and analysed data from 14 researches about health promotion for elderly. (8-21)

METHODOLOGY

1. Research Method

This research is a documentary research which analysed the related work about promotion of exercise for the elderly publishing online and was searched between February 1-5, 2017. The samples were research reports and research articles which researcher searched from online system in 14 topics about "health promotion for the elderly research"

2. Research Instrument

Instrument used in this research is record form which was created in accordance with research purposes. The research instruments include note taking issues as follows; 1) Research method, samples, research area, research instrument, year of publishing 2. The activities of health promotion for the elderly, and 3) The result that the elderly have gained from health promotion .

3. Construction of the instrument

3.1 Study data from documents, textbooks, related research about situation of the elderly, health problems in the elderly and health promotion for the elderly

3.2 Determine the structure of record form in accordance with the research purposes

3.3 Create issue that have to be studied in record form for writing down findings from each topic that have been read and analysed in research

3.4 Check the accuracy which must cover the issues as purposed by the expert of the qualitative research

3.5 Improve record form to be clearer and more comprehensive in accordance with the expert

4. Data collection

4.1 Carry out the research in topic relating to the health promotion for the elderly

4.2 Read and analyse each topic carefully

4.3 Record findings that are acquired from research following the record form created by researcher in accordance with each issue of research purposes

5. Assessment and data analysis

5.1 Assess all of data from record form in each issue in accordance with research purposes

5.2 Analyse and synthesise the findings in each issue from record form by qualitative research method consisting of content analysis and typology. Analyse by quantitative research method consisting of simple statistics which is frequency and percentage, presenting each issue in accordance with research purposes.

RESULTS

1. Research method used in health promotion in the elderly research

1.1 Method - Mixed method including quantitative and qualitative research was used to conduct this paper. It was quasi-experimental research including 8 topics of one group pre-post test design which is 57.14 percent, 3 topics of two group pre-post test design which is 21.43 percent, and 3 topics of Partipatory Action Research which is 21.43 percent.

1.2 Sample - There were 896 elder people who are 60-75 years old participating in 14 topics of research and in 1 topic about the elderly and care giver.

1.3 Research area - There was a study in 12 provinces in every region of Thailand which are 2 topics in the northern part, 2 topics in the north-eastern part, 2 topics in the southern part, 1 topic in the eastern part, 5 topics in the Central part of Thailand, and 2 topics in Bangkok.

1.4 Research instrument - There was health behavior promotion program with 1-6 months period, collecting data by record form, questionnaire and interview form.

1.5 Year of publishing - There was research published in 2010-2016; 1 research in 2010, 2 research in 2011, 2 research in 2012, 2 research in 2014, 4 research in 2015, and 2 research in 2016.

2. Activities of health promotion for the elderly

2.1 The lecture about health promotion includes 14 topics of research which is 100 percent. This can be categorized into;

2.1.1 Physical health - It is about promotion in nutrition (diet), exercise, safety way of medicine usage, oral disease protection which are 100 percent in 14 topics.

2.1.2 Mental health - It is about promotion in stress management, hobby, merit making, praying, and meditation which are 83.33 percent in 10 topics

2.1.3 Social health - It is about promotion in having relationship with society, recreation activities, second career, volunteer in community task which are 35.71 percent in 5 topics

2.2 Practicing in health promotion includes 12 topics that promote the elderly's health by mostly practicing in physical part such as exercising, meditation, and recreation activities.

2.3 Group activity among the elderly is an experience exchange about health promotion, opinions and questions towards health topic, and health care goal.

3. The result that the elderly have gained from health promotion. Researcher has summarized all of the results from studying the sample group which are;

3.1 Knowledge about health care - There was 14 topics that educate about health care to the elderly. 12 topics (85.71%) showed that after taking part in program, the elderly had better knowledge in several aspects such as diet, exercise, stress management, and accommodation. For those elder people who are facing with hypertension and diabetes, they have got knowledge about how to take care of themselves with diet, exercise, safety way of medicine usage, and seeing doctor constantly.

3.2 Health behavior - There were 12 topics of research promoting the elderly's practice about their health. 10 topics (83.33%) showed that the elderly had significantly better health behavior than the period before taking part in program in several aspects such as diet, exercise, and emotion management. In addition, the elderly had an opportunity to learn to meditate, exercise by swinging their arms, Tai Chi (Chinese boxing dance), exercise with long plastic stick, and with loincloth or elastic band.

3.3 Social interaction - All of 3 research (100%) found that the elderly had more social activities after taking part in group activity, experience and opinion exchanging in health topic, being a volunteer in community, merit making, praying, and meditation.

3.4 Participation satisfaction - Two research about satisfaction of the elderly after taking part in the program found that the elderly had high level of satisfaction by attending in health promotion program.

3.5 Lower hypertension - 5 research that promoted health in the elderly found that those who attended in the program has significantly lower level of hypertension.

CONCLUSION AND FUTURE WORK

1. Research methodology used in this paper is mostly a quantitative method focusing on 14 topics of lecturing and 9 topics of encouraging the elderly to practice. There were only 3 topics of research that focused on participating which was only for the elderly. Health promotion in the elderly which was aimed to change their behavior shall employ methodology that focuses on participation by considering 3-self principle which is self care, self regulation for healthier life, and self efficacy which leads to behavior modification in physical, mental, and social aspect. As Sunantha (20) has studied the research about Application of self-efficacy program for changing health behaviors among elderly people with hypertension, the study showed that the self efficacy promoting program could increase the perceived self-efficacy, self care, and self regulation and led to an improvement of health.

2. The result of study showed that, in research about health behavior promotion in the elderly, researcher focused on physical aspect most, followed by mental and social aspect respectively. However, health promotion in the elderly in mental and social aspect are still important because they could lead to elder people's happiness and better health. Therefore, health behavior promotion in the elderly should focus on all physical, mental, and social aspect as Ponpun Vorasiha & Anchalee Jantapo (22) and Anchalee Jantapo

& Ponpun Vorasiha (23) has promoted life quality of female prisoners by using Arokayasal Wat Kampramong Guideline in order to promote all of three aspects of health at the same time, and Anchalee Jantapo (24) has studied the research about quality of life in female prisoner in the 4 aspects of quality of life.

3. The result showed that research that was used to study mainly focused on health behavior promotion in the elderly with very little participation of family and community. Moreover, it is short-term research which took only 1-6 months to conduct. However, research about health behavior promotion should focus on participating method which has both family and community in program in order that they can learn and understand how to improve their life quality and health by having their family and community as their supporter according to the goal of integration plan of health promotion in the elderly (5). Natedao Jitsopakul (25) has studied the factors that have association with health behavior in the elderly and found that there was a link between having social support and having better health behavior.

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HEALTH BEHAVIOR OF THE ELDERLY

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ABSTRACT

This research is a documentary research. The purpose of this paper is to study research relating to health promotion in the elderly in these following aspects; 1) Research method used to conduct health behavior of the elderly research, 2) Health behavior of the elderly. Data collection was from online research between February 7-12, 2017. The research instrument is data record form which was created in accordance with research purposes. Quantitative data was analysed by using frequency and percentage. Qualitative data was analysed by content analysis and typology. The result showed that the research about health behavior of the elderly that was searched has 18 topics. There was 100% of survey research. There were 40,918 elders participating which their age are 60-89 years old. Research area was a study in all regions of Thailand covering 39 provinces. Research instrument were questionnaire and interview form about health behavior of the elderly. Most of the elderly have moderate level of health condition and average level of health care. The elderly have good level of knowledge and average level of consuming proper food, but they don't have exercise regularly. Most of the elderly have average level of stress and stress management. Some of the elderly took part in community activities include merit making, travelling, and being a volunteer in their community.

Keywords–Elderly, Health Behavior, Elderly Health Behavior

INTRODUCTION

Thailand's population structure has changed rapidly in the last 3-4 decades. The number of elderly people has increased which leads the country to ageing society. In 2000-2001, more than 10 percent of Thai population is 60 years old. From the Thai population projection, from 2015 to 2030, Thailand will be in "ageing society" condition which is the situation that the country has elderly people who are 60 years old or older more than 10 percent compared to population in other age ranges in the same area. In the next 10 years, the country will become completed ageing society which more than 20 percent of population is elderly people who are 60 years old or older when comparing to population in other age ranges in the same area. The country is expected to be super ageing society in less than 20 years when elderly people are more than 28 percent. (1)

The elderly are considered being a vulnerable group. Their bodies gradually deteriorate and have both physical and mental changes such as having dry skin, slower response to stimulus, degenerative eyesight, poor nervous system, delicate bones, poor muscle strength, and having degenerating organs. (2) The nationwide survey about health condition in the elderly (3) indicated that a number of the elderly have experienced some types of ailment such as hypertension, diabetes, knee Osteoarthritis and others. The survey also showed that some of the Thai elderly have negative health behaviors. Contrary to negative health behavior, positive health behavior includes exercising at least 3 times a week, drinking 8 or more glasses of water per day, consuming vegetable and fruit regularly, avoiding drinking alcohol and smoking. Ministry of Public Health has a health development plan which its purpose is to make the elderly live their lives properly (4). Therefore, health promotion in the elderly is necessary. The elderly should be promoted to be an active ageing. World Health Organization (5) has defined three elements of being an active ageing which are 1)

being healthy ageing. 2) having security in life. 3) having participation. Having negative health behavior results in several risk factors in physical health. Researcher has been interested in studying some research which relates to health behavior of the elderly for collecting knowledge, using it as basic information for applying in health promotion in the elderly and making them an active ageing, all of which lead to better quality of life.

OBJECTIVES

To study the research about health behavior of the elderly in these following aspects;

1. Research method used in health behavior of the elderly research.
2. The activities for health promotion in the elderly
3. The result that the elderly have gained from promotion of exercise

LITERATURE & THEORY

This research has reviewed the concept that relates to the exercise promotion and will concisely present as follows;

1. Situation of the elderly in Thailand

Nowadays, Thailand is an ageing society which its population has increased rapidly since 2000 when the proportion of the elderly (60 years or older) reaches 10 percent of country population and the country will become “completed ageing society” when percentage of the elderly population reaches 20 in 2021. Moreover, the country is expected to be a super ageing society in less than 20 years when percentage of the elderly population is 28 percent of all country population. (6) Now that the elderly have some changes in both physiological and mental health resulting from degenerating systems in their bodies, promotion of exercise is necessary. One of the proper activities is exercise promotion for good health in the elderly.

2. Health behavior of the elderly

The Government's policy is to focus on taking care of the elderly's health by imposing strategy about building strength and emphasizing participation of local, community, and related sectors. One of the important things is to encourage the elderly to have a good health, to slow down ageing, and to live their routine lives on their own. (7). World Health Organization (5) has mentioned three elements to improve an active ageing in the elderly which are 1) being healthy ageing. 2) having security in life. 3) having participation. Healthy ageing means having good physical and mental health in these following aspects; eating clean and proper 5 food groups, drinking pure water, avoiding strong-flavoured food, smoking, and alcohol, having regular exercise, having adequate sleep which is 7-8 hours a night, and practicing mind to embrace reality in life (3). Moreover, healthy ageing includes being responsible for one's health and having health checked regularly. Another element is having security in life which covers economic security, saving for living, accommodation, and health insurance. The third element is having participation which means taking part in social activities, having relationship with family or community, and being a member of favourite organization. This research is the study of related research about health promotion in the elderly.

3. This research collected and analysed data from 18 researches about health promotion for elderly.(3,8-24)

METHODOLOGY

1. Research Method

This research is a documentary research which analysed the related work about promotion of exercise for the elderly publishing online and was searched between February 7-12, 2017. The samples were research reports and research articles which researcher searched from online system in 18 topics about “health behavior of the elderly research”

2. Research Instrument

Instrument used in this research is record form which was created in accordance with research purposes. The research instruments include note taking issues as follows; 1) Research method, samples, research area, research instrument, year of publishing 2) Health behavior of the elderly.

3. Construction of the instrument

3.1 Study data from documents, textbooks, related research about situation of the elderly, health problems in the elderly and health behavior of the elderly

3.2 Determine the structure of record form in accordance with the research purposes

3.3 Create issue that have to be studied in record form for writing down findings from each topic that have been read and analysed in research

3.4 Check the accuracy which must cover the issues as purposed by the expert of the qualitative research

3.5 Improve record form to be clearer and more comprehensive in accordance with the expert

4. Data collection

4.1 Carry out the research in topic relating to the health promotion for the elderly

4.2 Read and analyse each topic carefully

4.3 Record findings that are acquired from research following the record form created by researcher in accordance with each issue of research purposes

5. Assessment and data analysis

5.1 Assess all of data from record form in each issue in accordance with research purposes

5.2 Analyse and synthesise the findings in each issue from record form by qualitative research method consisting of content analysis and typology. Analyse by quantitative research method consisting of simple statistics which is frequency and percentage, presenting each issue in accordance with research purposes.

RESULTS

1. Research methodology that was used to conduct health behavior of the elderly research

1.1 Research methodology - There was 100% of survey research.

1.2 Sample - all of 18 topics of research were conducted among the elderly whose age are more than 60 years old. There were 40,918 elder people who are 60 - 89 years old participating in this research.

1.3 Research area - Research was conducted in all regions of Thailand covering 39 provinces; 9 provinces in the northern part, 10 provinces in the northeastern part, 5 provinces in the southern part, 4 provinces in the eastern, and 10 provinces in the central part of Thailand and Bangkok.

1.4 Research instruments were questionnaire and interview form about health behavior of the elderly.

1.5 Year of publishing - There was research published in 2007-2016; 1 research in 2007, 2 research in 2010, 2 research in 2011, 1 research in 2012, 1 research in 2013, 4 research in 2014, 6 research in 2015, and 1 research in 2016.

2. Health behavior of the elderly can be categorized as follows;

2.1 Health condition - There were 7 research (38.89%) that studied about the elderly's health condition and found that;

2.1.1 Health condition - Most of the elderly have moderate level of health condition and more than half have their health checked constantly.

2.1.2 Most of the elderly have healthy body weight while one-third have obesity which was found more in women than men. Most of them wear glasses, have clear hearing without hearing aid, don't smoke and don't drink alcohol.

2.1.3 Among the elderly with chronic disease, Hypertension is found most often, followed by diabetes, hypercholesterolemia (High level of cholesterol in blood), Osteoarthritis, muscle aches and others.

2.2 This research aimed to study about physical, psychological, and social aspect of health behavior.

2.2.1 Physical aspect - There were 18 topics of research (100%) that studied physical health behavior in the elderly. The results are as follows;

1) There were 7 topics of research about personal health care and sanitation that studied about health behavior in the aspects of cleanliness, practice when having illness, disease prevention, accommodation sanitation, and doctor seeing constantly. It was found that most of the elderly have average level of health care.

2) There were 6 topics of research about diet (33.33%) that studied about consumption behavior. It was found that the elderly have good level of knowledge and average level of consuming proper food. Most of them consume vegetable and fruit regularly, drink adequate amount of water while minority of them prefer salty food.

3) There were 10 topics of research about exercise (55.56%). It was found that most of the elderly don't exercise regularly and take only 10 - 15 minutes to do exercise. Most of them prefer walking or arm swinging since they don't know other proper ways to do exercise. Only a few do exercise regularly.

2.2.2 Psychological aspect - There were 8 topics of research that studied psychological health behavior including anxiety, stress, stress management, self-esteem. It was found that most of the elderly have average level of stress and stress management. In addition, they have the presence of mind as stress management when facing change during old age.

2.2.3 There were 4 topics of research about social relationship of the elderly (22.22%). It was found that some of the elderly took part in community activity, elderly club. Those activities include merit making, travelling, and being a volunteer in their community.

CONCLUSION AND FUTURE WORK

1. The result showed that, in the study of physical health behavior of the elderly, they don't do exercise regularly with only 10 - 15 minutes of exercise. Moreover, most of them exercise by walking and arm swinging only. Therefore, next research should focus more on motivation of exercise in the elderly since it is important and necessary and can help improve the elderly's health. According to Anchalee Jantapo (25), from the conclusion of exercise in the elderly research, it was found that regular exercise which means 3 - 5 times a week with at least 30 minutes can improve muscle strength, together with upper body, core muscle, and limb muscle strength. It can also improve moving agility and balancing skill, elasticity of muscle and joint in the elderly.

2. The result indicated that, in the study of health behavior in the elderly, researcher has focused on psychological and social relationship aspect less than physical aspect. However, those psychological and social health behavior are still important since they can lead to the elderly's happiness and good health. World Health Organization (WHO) has imposed 4 elements of quality of life which are physical domain, psychological domain, social relationships domain, and environmental domain. Moreover, WHO developed a tool that can be used to measure life quality which is WHOQOL-100 in 1996. This tool has 100 questions or indicators. WHO had adapted this tool to 26-indicator version known as WHOQOL - BREF - THAI which has two types of questions consisting of Perceived objective and Self-report subjective with 4 elements; physical, psychological, social relationship, and environmental aspects. As Anchalee Jantapo (26) has studied about quality of life in female prisoner in the 4 aspects of quality of life.

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POLITICAL ECONOMY OF MEDIA DEVELOPMENT AND MANAGEMENT OF THE MEDIA IN THAILAND

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ABSTRACT

The media has played a significant role in terms of highlighting, informing and influencing people's political. It adds in publishing information among the people in the community and the country. The research focuses on the development and management of the media industry in Thailand. The study employed the qualitative research method, using interviews with media stakeholders, which were key informants of the research. Key informants were given in-depth face-to-face interviews. The research used the primary data of a total thirteen respondents from three groups: news producers, media regulation bodies and academic readers. The research findings showed that news coverage should be formulated along the lines of corporate social responsibility (CSR) and ethical codes. This means the development of the media in line with the changing society in order to be more responsible towards society and regulation should include breaking up of the media monopoly so that a more competitive environment could be built. The media organizations must set their strategy and mission to be more involved in the society and take more responsibility for the country. The constitution should clearly state the need for a service mindset and the need for ethical behaviour in all organizations, especially public organizations

Keywords—political economy, media development, Thailand

INTRODUCTION

The purpose of paper is to study the political turmoil, which has taken place in Thailand in recent years. The media has played a very significant role in terms of highlighting, informing and influencing people's political opinions and it is, therefore, important to analyze that role in depth. This research aims to study the economics, politics, media and stakeholders in Thailand in recent decades. Thailand officially became a constitutional monarchy with a prime minister as head of government in 1932. Politics in Thailand has been characterized by fighting between the old and new elite, bureaucrats and the military, with, as many coups as there have been elections over the last eighty years.

Thailand remains a constitutional monarchy, with the King as head of state and governments elected or appointed by the military as a result of coups. Political crisis has plagued Thailand in recent years, especially recently, with divisions between the People's Alliance for Democracy (PAD), commonly called the Yellow Shirts, and the United Front for Democracy against Dictatorship (UDD), commonly called the Red Shirts.

Under the present circumstances in Thailand, there is a need to explore the role of domestic economic politics and how they affect the media. Furthermore, the corporate social responsibilities of media organizations have been studied. Finally, a suitable model for the development and management of the media in Thailand has been identified.

LITERATURE & THEORY

This section will begin with the concept of the media and stakeholder as the lens for this research. The political economy and the media will be presented next. Finally, and an analysis using CSR and Thai media crisis will be performed.

2.1 Media

The media industry in Thailand has been gradually growing in importance over the last ten years. The media is an influential agent in presenting the news, as well as political and economic developments. Since the military coup in 2006, the media has played an important role informing society and building opinions about the government and politicians in a very controlled manner. Other stakeholders in Thailand have spread their political propaganda and their concerns and have strengthened their power in Thai society. There has been a great deal of research studying the media and its role. Willnat et al. (1992) argued that information is spread through direct personal experiences and structured patterns of social interaction. Weaver (1996) mentioned that the media did not serve as a necessary and sufficient cause of audience effects, but rather functions through a nexus of mediating factors and influences. While Yang and Stone (2003) suggested that information could be expressed both directly and indirectly from the media, thus the media is not the only source from which people can obtain knowledge of issues or events directly. This is similar to traditional Thai culture, in which word-of-mouth is still influential in society, especially in the community. In addition, politicians can use the media as an important tool in promoting themselves in elections. For example, Schmitt-Beck's (2003) studied the use of the media in the first all-German election in December 1990 and argued that the media's political reporting, in addition to interpersonal political communication, influenced voters' perceptions and affected the election outcome. In the USA's presidential election of 2008, it was claimed by actor Jon Voight that Obama's success was attributable to the power of the media (Joel, 2014).

2.2 Stakeholder

Carroll (1991) described the term stakeholder as "*Those groups or individuals who have a stake, a claim, or an interest in the operations and decisions of the firm*". Likewise, Bryson (2004) gave the reason that stakeholder analyses were important because of the "increasingly interconnected nature of the world". He also cited public problems, such as economic development, natural resource management and global warming, amongst others, as encompassing or affecting numerous people, groups and organizations. The term 'stakeholder' in the firm's actions includes such diverse groups as customers, employees, stockholders, the media, governments, professional and trade associations, social and environmental activists, and non-governmental organizations (Lawrence & Weber, 2011).

2.3 Political economy and the media

As shown in the research of Zaller (1999), the media is the one important tool, which can be used by politicians to get their message across in the form of press releases, news conferences or other types of media events across the country. In addition, the media influences and informs people about the events and politics in general. Graber (1991) presented the notion that the impact of the media on elections became a bandwagon for researchers to ride on because it was close to the political mainstream. Furthermore, McQuail (1994) suggested that the researchers could manage to develop theories regarding the media's effect, but there was no consensus about the nature and media size.

2.4 Corporate Social Responsibility

Asia has been a diverse region from a fundamental point of view. CSR is important, whilst accepting that CSR drivers in Thailand should be different from those of other regions of the world. There have been evident country differences in socio-economic development, political histories, cultural traditions and environmental risks, which all call for close study. Davis (2002) discussed the fact that the media now had a role in society that it had never had before due to the power of technology. During the last two decades, CSR has been an important subject of discussion in the business field and has also drawn attention from the business press. The CSR issue was mentioned for the first time in a Harvard Review article in the 1930s. In that article, Dodd and Merrick (1932) discussed the responsibility of managers to society. Since then, scholars have discussed the

relationship between business and society in the context of CSR (Carroll, 1979). Others have analyzed this relationship using stakeholder theory (Freeman, 1984). In a similar way, Garriga and Mele (2004) suggested the four dimensions of CSR as being instrument, political, integrative, and ethical theories, including a business' obligations to pursue profits, accept social obligations, grow its business, and embed ethical values. According to the stakeholder theory, the studies indicate that an increase in media attention will be positively associated with increased CSR by firms (Cummingset al., 2000). As powerful social institutions, media companies would do well to engage in some form of issues management, the crux of which is social involvement and responsibility (Heath & Nelson, 1986, p. 246). Recently, Brown and Forster (2013) extended Adam Smith's work on the Theory of Moral Sentiments in order to answer the question as to how companies should morally prioritize CSR initiatives and stakeholder claims. However, Smith's work was very clear that the moral obligations of business to society began with obligations upholding the perfect rights afforded in its stakeholder relationships, tempered by its obligations to correct any past harms.

2.5 Thai media crisis

Communication has been a significant tool in society, especially for politicians, the government and the people. Media organizations are important channels in the communication between people in society and in the understanding and awareness of issues raised in the country. Historically, after the revolution in 1932, Thailand changed from a monarchy into a parliamentary democracy. From time to time since that date, the military has taken over power from a government elected by the people and has stayed in power for decades. At those times, the military used the broadcast media as a tool for political propaganda to affect Thai society and its attitudes to government. Consequently, civil society has been arguing for reform of the state-owned media or for accountability and freedom from government control. It was argued that there was a need to have fair and transparent regulation of the media. A chance for success was officially written under Article 40 of the 1997 Constitution (Klagnarong, 2009).

METHODOLOGY

Social studies show that the actual behaviour of people in society may differ significantly from their responses to research questions (Pager & Quillian, 2005). The aim of this research is to explore the model of management and development in the media industry in Thailand. Thus, qualitative methodology is appropriate for this research, in order to convey information via media stakeholder's key informants. Two research paradigms, which influence the qualitative research, are positivism and phenomenology. Positivists assumed that truth was measurable with statistical precision, while the phenomenologists ignored the complexity of reality in its context (Patton, 1990). Positivists and phenomenologists took on different kinds of problems and explored different kinds of answers in the research; their research required different methodologies to maintain credibility (Jankowicz et al., 2005). The phenomenology paradigm has been applied in this research, concerning the understanding of the phenomenon of media in Thai society and the meaning of issues concerned with society, economics and politics through the role of the media in Thailand.

RESULTS AND CONCLUSION

The results and conclusion of this study are as follows:

1. The research examined newspaper and TV broadcasting media in detail. The role of the media in Thailand is to communicate information and knowledge to audiences in a neutral and objective manner. The main duty of journalists is to look for news and present it. The interests of media owners often hamper the objective presentation of the news, the level of training of journalists and weak self-regulation. One way in which media owners often influence media output is through their undeclared interests. Most media owners have other businesses, most of which are in related media. However, they take advantage of their ownership

by advertising their own businesses without a formal announcement that those businesses belong to them. Even though this was not considered by the key informants to be entirely wrong, and there is no legal requirement for interests to be declared, it is not ethical. This shows that the media industry in Thailand does not have its audience as its main focus from an ethical point of view. In other words, the media industry in Thailand has not developed a code of ethics, as well as those in Western countries. It does business as a big family. Technological advances have resulted in a proliferation of different forms of media, including cable TV, Internet, social networking and satellite TV. Nowadays, newspapers have extended their work into digital television channels and online news. As a result, newspapers and television are more competitive. The media cannot think just of its own interests, but is expected to act in a way that will be of benefit to its audiences.

2. Nowadays, the media business is highly competitive in appealing to audiences, leading to a war of information. Informants believed that the media tended to be biased by secretly accepting financial sponsors. Generally, the audience chose to read the news, especially the political news, from their political favours (Kobayashi & Ikeda, 2009). Therefore, taking a side in politics or presenting a positive perspective, when presenting news stories could be the result of the political influence of the media owners or the personal opinion of journalists. Additionally, various entrepreneurs hope to invest in, or be part of the media industry in order to gain benefit for their businesses. It is difficult to control. If there were effective controlling bodies, the image of the media business could be improved. As Duncan (2001) discussed, politicians may make expensive gifts to columnists, or even offer regular “salaries” in return for favourable coverage.

3. If the media does not carry out its role, as it should, for example, if it ignores its duty to present the truth or the main idea of the news, it would not be beneficial to consumers. As one respondent suggested, one of the main problems faced by the Thai media is how to make the content diverse and yet not biased. Also, journalists or editors do not have the same level of freedom in presenting the news as those in Western countries.

4. The political instability reduces economic growth, but a lack of economic growth creates instability within the political regime as well (Jong-A-Pin, 2009). However, the media industry has a high capacity to adapt to changing economic circumstances in order to remain competitive. From the qualitative data, it was shown that media organizations were able to be flexible during the economic crisis through actions, such as cutting unnecessary expenses or laying off staff.

Finally, one solution for moving forward is to have an independent organization to control the media. This seems to be a long way away in Thailand. There are several reasons for this. Technology and social networking have increased in popularity worldwide. Thai people tend to access the Internet for news and television programmes, rather than buying newspapers and watching television at home. The credibility of media, such as newspapers, began to decline due to disunity of opinion. Additionally, they do not believe in the media regulatory bodies, such as the NBCT, NPCT and NBTC. Their administrators do not have real authority and are not well respected by the members they represent. This could be attributed to the Thai working style. The administrators are supposed to have expertise and experience. The ISRA Institute is an established independent organization. It can work independently even though it might be threatened. However, the ISRA is a small organization and only publishes online. The fact that its news could not be disseminated to a wider audience means that the information it provides has little effect in society.

FUTURE WORK

Firstly, the difficulty of this study to carry out qualitative data collection from key informants was that they were afraid of providing the truth. The limitation of the study was political instability. Secondly, the

government or media relating organizations, such as the Ministry of Information and Communication Technology could apply some significant results in planning the policy, or pushing the new issues in the media industry. Thirdly, new media in the country should employ the results, as it would be easier to apply regulation from the beginning. Fourthly, further research is required to study the attitudes, behavior and working practices of media staff in the country, in order to improve the working nature and management. Fifthly, due to the lack of credibility within the media, the satisfaction of awareness and believing in information or news from media should be conducted in terms of branding the media image. Lastly, further research from this study is to conduct quantitative research by using the answers to the questions and the findings of the study to develop a solution. Similarly, making a focus group to the relating stakeholders of the media industry could further do qualitative research.

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