

**ATTITUDES TOWARDS SCHOOL HEALTH PROMOTION  
AMONG PRIMARY SCHOOL TEACHERS' IN  
PUTHAMONTHON DISTRICT, NOKHONPATHOM, THAILAND**



**A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF  
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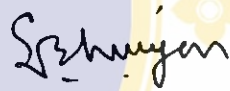
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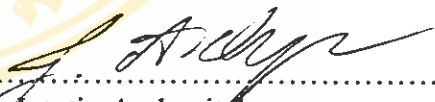
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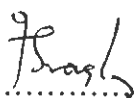
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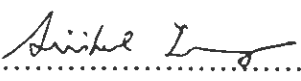


  
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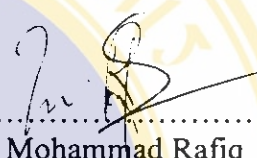
  
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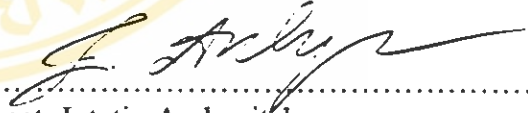
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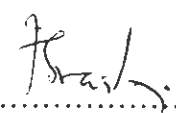
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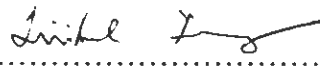
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ABSTRACT

A cross sectional study was conducted on attitudes towards school health promotion among primary school teachers' in Puthamonthon district Nakhonpathom, Thailand, with the aim of identify the attitudes and knowledge of school teachers. A total of 150 teachers were interviewed from seven purposely selected schools during January 2006.

The results of this study found that there were several items of school health promotion which linked to low attitudes and poor knowledge among school teachers. Low levels of attitudes were found for management skills, non availability of school health promotion policies, and knowledge, it was found that communication skills like student interaction are not effective. Teachers also believe present school health promotion is insufficient. For recreation facilities to improve the knowledge of the school teachers needs to improve. Regarding the importance of toilets in the schools, teachers should have more knowledge about the benefits of toilets in a school.

The study also shows that primary school teachers needs to be provided with more education, information and short training courses for the improvement of school health promotion activities.

Based on the study findings qualitative and quantitative study needs to be done to asses respondents real needs and develop strategies for the improvement of health promotion activities.

KEY WORDS: ATTITUDES / HEALTH PROMOTION /  
PRIMARY SCHOOL TEACHERS / NAKHONPATHOM

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# CHAPTER 1

## INTRODUCTION

### 1.1 Rationale and justification

A health promoting school is one that constantly strengthens its capacity as a healthy setting for living, learning and working. WHO's Global School Health Initiative, is guided by the Ottawa Charter for health promotion 1986 and the WHO's Experts Committee Recommendation on Comprehensive School Health Education and Promotion 1995. The initiative aims seek to mobilize and strengthen health promotion and education activities at the local, national, regional and global levels. The initiative is designed to improve the health of the students, school personnel, families and other members of the community through schools. Worm infections are the greatest cause of disease among 5-14 year old children and also the Vitamin A deficiency is the single greatest cause of preventable childhood blindness. Iodine deficiency is the most common preventable cause of mental retardation and brain damage in children. Injury is the leading cause of death and disability among school-age youth. One out of two young people who start and continue to smoke will be killed by tobacco-related illness. Therefore all of the above health problems can be prevented or significantly reduced through effective school health and youth health programmes (1).

In the South-East Asian countries the proportion of young people varies between 28 to 34% of the population. Recently in many developing countries, including those of South-East Asia Region. It is obvious that neither maternal and child health programmes nor school health services adequately address the special needs of adolescents. Although the socioeconomic changes and technological advances during the past few years have influenced most of us. However, these changes have made a much stronger impact on the lives of young people. That resulting from nutritional deficiencies and unhygienic living conditions, the today is

confronted with problems, which related to lifestyle changes. A significance increase in tobacco prevalence in some countries has been mainly due the increase in the smoking habit by the youth. Therefore the strong and overwhelming linkage between alcohol use and the initiation of many young people into the career of street gangs has also been documented in some countries of South-East Asia as well as all countries of the region drug use associated with high crime and suicide rates. Further, alcohol is estimated to account for almost 50% of all deaths from traffic accidents in some countries of the region which related to adolescents and the age groups 19-29 years being the worst affected. The immense suffering caused by tobacco, alcohol and drug abuse as well as by irresponsible sexual behavior and violence. Therefore, schools have an important role to play to ensure that the young are equipped to overcome negative forces. School must inspire and influence the young to grow into happy and productive citizens and to enhance common well being, harmony and peace. However, it indicates that the health and education sectors must work together as well as teacher will need fresh training, school administrator will need reorientation and parents and communities will need to get more actively involved (2).

An international conference on environmental threats held in Bangkok, Thailand, 3–7 March 2002. The goals of this conference were to identify and to raise the awareness on the environmental threats to the health of children in Southeast Asia and the Western Pacific are myriad, and include the classic infectious disease hazards: pneumonia, dysentery, measles, AIDS, and tuberculosis. Moreover, as industrial development proceeds and nations pass through the epidemiologic transition, children are confronted by a rapidly multiplying array of new threats to health posed by exposures to toxic Unsafe water, sanitation and hygiene, and indoor smoke from solid fuels are two of the top 10 risk factors contributing to the GBD (global burden of disease) in the poorest regions of the globe (3).

### **Health problem among school aged children and forward planning for health promoting schools in Thailand**

As a result of high birth rates and population growth rates in the past, the growth of the 5-19 age group is on an upward trend. In addition, school health programs in the Seventh Development Plan have been extended to cover new target groups, i. e. preschoolers and out-of-school children and youths as well as the Fourth National Economic and Social Development Plan 1977-1981. The program has been extended into the current seventh plan. The objectives of this program are to improve the nutritional status of under-5 children school-age children aged 5-14, pregnant women and nursing mothers in regard to protein and calorie deficiency, anemia caused by iron deficiency, goiter caused by iodine deficiency and vitamin A deficiency. Oral health status according to the 1994 national path finder survey, rates of dental caries in primary dentition were 61.7% in the 3-year old group and 85.1% in the 6-year-old group rate were almost the same in rural and urban areas, but in rural areas they are on the increase. Rates of dental caries in permanent dentition among primary school children and teenagers were constant, compared with the 1989 and 1984 surveys, at 53.9% and 63.7%, respectively (4).

Helminthic infections relating to environmental sanitation and personal hygiene. The prevalence rate of all helminths (roundworm, hookworm, whipworm, pinworm, liver fluke, and tapeworm) has decreased from 62.9% in 1957 to 22.5% in 2001. Hookworm infection is an important cause of iron deficiency anaemia. Surveys of iron deficiency anaemia in pupils aged 6-14 years in primary schools conducted between 1991 and 2001 throughout the country showed a decrease from 19% to 6% over the intervening period. Hookworm infections showed a decrease in the prevalence rate from 25% to 11% over the same period. The decreasing rates of helminthic infections reflect the relationship with the increase rate of latrine use. Future success is more likely if education begins at a young age in schools where the schools themselves should set an example of hygienic conditions and behaviours. After the home, children spend most of their time at school, where the promotion of simple hygiene interventions such as hand washing and tooth brushing can yield not

only health benefits, but also economic benefits to the individual, family, and community. Thailand has “Health Promoting Schools” and the “Child Care Centre” programmes that aim to recognize establishments as good practice models and “Learning by Doing” which actively involves students in monitoring the health of the environment in and around their schools (5).

Surveys conducted by the Ministry of Public Health in 2001 suggested that 20 percent of children living in remote areas were malnourished, while up to 13 percent of Thai children were obese. The ministry hopes to introduce nutrition programmes in 875 schools across the country, including schools catering for hill tribe children in nine northern provinces. Ministry officials blame growing tide of child obesity on changing eating habits, with young people increasingly consuming food containing high levels of fat, sugar and starch. Over the past two decades, average per capita sugar consumption in Thailand has risen from 13 kilograms to 29., According to the director-general of the department of health, 42 percent of this sugar is derived from fizzy drinks. A further 21 percent comes from flavoured milk products (6).

## **1.2 Research question**

What are the attitudes towards school health promotion among primary school teachers, Puthamonthon district, Nakhonpathom, Thailand?

## **1.3 Objectives**

### **1.3.1 General objective**

To describe the attitudes towards school health promotion among primary school teachers, Puthamonthon district, Nakhonpathom, Thailand.

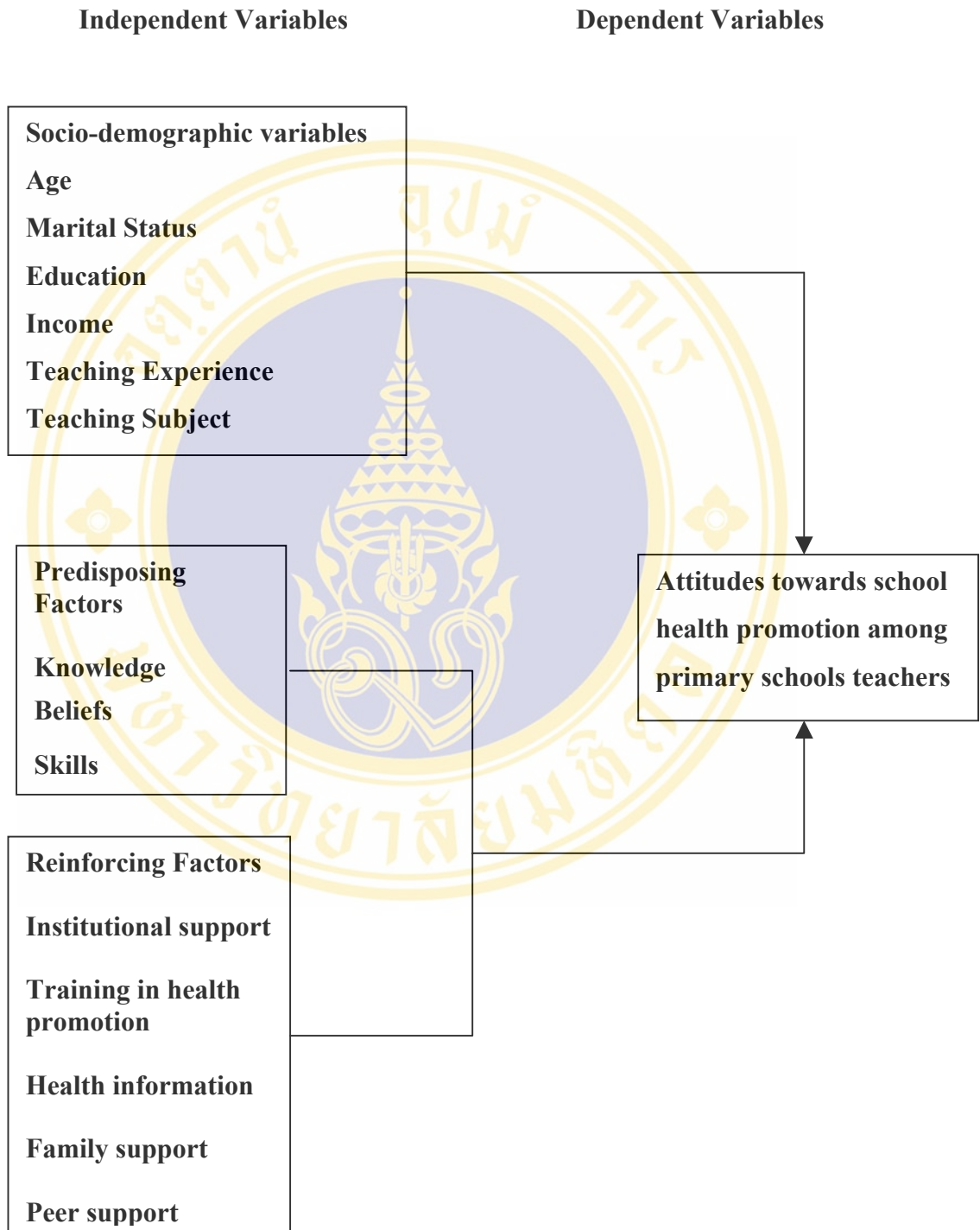
### **1.3.2 Specific objectives**

1. To describe the socio-demographic characteristics of primary school teachers towards school health promotion

2. To describe the knowledge of the school teacher's towards school health promotion among primary school teachers
3. To explain primary school teachers attitudes towards school health promotion activities at primary school
4. To describe predisposing factors and school health promotion among primary school teachers
5. To describe reinforcing factors and school health promotion among primary school teachers.



### 1.4 Conceptual Framework



## 1.5 Operational definition of variables

**1.5.1 Health promotion:** In this study health promotion is refer to the way and courses that the schools teacher teach to the students that enable them to increase control over and improve their health.

**1.5.2 Teachers attitudes:** In this study the attitudes towards school health promotion, it refers to the feeling or thoughts to beliefs on information that they received from training or health publication about school health promotion and to implemented in schools. Or the attitudes towards school health promotion, it's refer to among primary school teachers, attitudes in area of contents, methods and material, when they teach in the school. The attitudes of the school teachers were divided in to three levels based on Bast's criteria. According to this criterion the attitude was divided as follows:

High Attitude: 27-33 (Score)

Moderate attitude: 19-26 (Score)

Poor attitude: 11-18 (Score)

**1.5.3 Gender:** In this study gender means male and female as well as it refers to the time of teaching school health education in the high schools.

**1.5.4 Age:** Age should be related with the teaching years and the categorized as:  
21-31 years

32-41 years

42-51 years

52-60 years

**1.5.5 Marital status:** In this study marital status of the school teachers defined as single, married, widow and separated.

**1.5.6 Education:** It means to the level of education that the teacher got the Certificate or Diploma, and Bachelor's degree or Master's degree from university.

**1.5.7 Income:** The total income of the respondent in a month such as below 5000 Baht, 5001-10000 Baht, 10001 to 15000 Baht and >15001.

**1.5.8 Teaching experience (Year of teaching):** The teaching experience refer in this study the years that the primary school teachers teach in his/her school as, 1-5 years, 6-10 years, 11-15 years, 16-20 year and > 21 years.

**1.5.9 Teaching subject:** The subject teacher teaches in the class as religion, english, mathematics, health education, science and language.

**1.5.10 Predisposing factors:** Any characteristics of a teacher that motivates behavior prior for health promotion in primary school.

**1.5.11 Knowledge:** In this study knowledge on the health promotion, it refer s to the knowledge of teacher that practice for the health promotion in the school. The knowledge of the respondents was categorized according the Bloom's criteria which as follows:

Good knowledge: > 80%

Fair knowledge: 60-80%

Poor knowledge: ≤ 60%

**1.5.12 Beliefs:** In this study beliefs refer that the teacher makes strong decisions by themselves to teach about school health promotion and encourages children to make informed choices or decisions relating to their health. In the primary school this entails increasing their factual knowledge and promoting healthy beliefs.

**1.5.13 Skills:** In this study skills refer to teachers have experienced in balanced nutrition, dental health, immunization and other physical activities about primary school students.

**1.5.14 Reinforces:** Rewards or punishments following or anticipated as a consequence of a behavior. They serve to strengthen the motivation for behavior of family, peers and teacher.

**1.5.15 Institutional support:** It refers support from staff, headmaster and director of education.

**1.5.16 Training in health promotion:** In this study, it refers teacher training in health related areas, for the upgrading the teachers' knowledge and skills in the health field involves developing simple training courses, preferably accompanied by support materials such as manuals and guides.

**1.5.17 Health information:** In this study, it refers information from the newspapers, health journal, health magazine etc.

**1.5.18 Family support:** In this study, it refers the support of family members of the students to support with teachers regarding health promotion at primary schools.

### **1.5 Peers support**

In this study, it refers that the teachers, received the psycho-social support from the colleagues regarding school health promotion in primary schools.

## **1.6 Scope and limitation of the study**

The data was collected from the respondents about Health Promotion. It was limited to the place, time and the sample size. This study was conducted about teachers' attitudes towards health promotion activities at primary schools in, Nakhonpathom, Thailand.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Importance of school health promotion

This chapter presents attitudes towards school health promotion among primary school teachers and the studies done to support the research objectives of this study. The WHO's Global School Health Initiative, launched in 1995, to mobilize and strengthen health promotion and education activities at the local, national, regional and global levels. The goal of WHO's Global School Health Initiative is to increase the number of schools that can truly be called "Health-Promoting Schools". Although the definitions will vary, depending on need and circumstance, a health promoting school can be characterized as a school constantly strengthening its capacity as a healthy setting for living, learning and working. A health promoting school strives to improve the health of school personnel, families and community members as well as students, fosters health and learning with all the measures at its disposal, engages health and education officials, teachers and their representative organizations, students parents and community leaders in efforts to make the school a healthy place, strives to provide a healthy environment, school health education and school health services along with school/community projects and outreach, health promotion programmes for staff, nutrition and food safety programmes, opportunities for physical education and recreation and programmes for counseling, social support and mental health promotion, implements policies and practices that respect and individual's self-esteem, provide multiple opportunities for success and acknowledge good efforts and intentions as well as personal achievements (7).

## **2.2 Teachers' attitudes towards school health promotion**

The teachers are the primary links in the school between children and their acquiring positive health habits and that teachers are behavioral models who strongly influence children's attitudes about wellness and health whereas, that school faculty and staff who have participated in school site health programs have experienced: improved attitudes about health, and improved morale increased perceptions of general well-being and increased participation in vigorous exercise (8).

## **2.3 Predisposing factors**

### **Level of knowledge of school teachers on health promotion**

In the broadest sense, knowledge and skills are needed for active participation in sustainable health promotion efforts. Ability to participate means empowerment the power of individuals, organizations and communities to support approaches that promote or improve health (9).

The health of students is influenced not only through classroom teaching, but also through the wider set of experiences and activities. It is recommended that; (a) teachers, principals and other members of the school community should be encouraged to act as appropriate role models. (b) all members of the school community (including staff and students) be encouraged to participate in school decision-making, particularly with regard to activities that influence their health. (c) School policies and practices should be consistent with the concept of a health promoting school, for example, healthy food in canteens, and all students should be encouraged to participate in physical activities. (d) The school ethos should be supportive of students' emotional and social health needs (10).

The department of Formal Education, Technical Department, and the Department of Mental Health, which enable teachers to provide assistance and care to students particularly in preventive aspects. The system is operated by counseling teachers under school support and external cooperation. Its contains several steps,

familiarizing each student, screening students, supporting, preventing and solving problems and transferring to concerned organization. But some problem with the work system i.e. limited time, no specific pattern, and lack of teamwork among teachers at each level Moreover, counseling teachers and guidance teachers lacked the skills to provide assistance, and were unable to build trust among students and also lacked of parents cooperation (11). Teachers reported exhausting education-based resources before seeking external advice. Most had positive experiences of child mental health services and were keen to be more involved. They favoured a service that provided rapid advice and ongoing support. Many complained about problems in communication (12).

#### **2.4 Teacher's belief and knowledge on health promotion skill**

A study conducted for the assessing knowledge, attitudes and beliefs about bullying used in a study of pre-service teachers in the United Kingdom was replicated on a sample of 82 pre-service teachers in the United States. Results were similar for both groups of pre- service teachers. Participants had some accurate knowledge as well as some beliefs and attitudes that would not be consistent with effective teacher behaviours towards students involved in bullying. Both samples were interested in further training as part of their teacher preparation programs. Implications for training of pre-service teachers are discussed (13).

Prior to the planning and implementation of any oral health promotion interventions, it is important to assess the current oral health status and key oral health problems of the local or school population, compared with those of the districts, regions and country. From oral diseases and related risk behaviours as well as data regarding oral health beliefs, knowledge, attitudes and behaviours can help planners understand both positive and negative influences on oral health. This information is crucial to the design, planning and implementation of oral health promotion programmes, so that the most relevant factors or barriers can be targeted effectively (14).

The programme was conducted by trained **school teachers** during a course of 4 months. To test the life-skills approach to smoking prevention. **Teachers** as well as pupils showed a high level of satisfaction with the programme idea and the materials. With regard to the outcome variables, the programme had no differential effect on current smoking (15).

In a health promoting school representatives from the whole social mix in the community are regular visitors, bringing the contribution of the various social, cultural and religious groups, the public services, businesses, and the local media into school life. Community involvement and collaboration is a two way process, and schools have much to contribute as well as take. The health promoting school will take its community responsibilities seriously. Pupils are likely to be found outside the school, engaged on community projects, contributing to and learning from the outside world, as well as in the classroom. The possibilities are enormous. Caring for the elderly and receiving lessons in oral history from them. Clearing refuse and learning about recycling. Creating havens for wildlife and learning about biology (16).

The Health Education Board for Scotland conducted a study to evaluate the class moves programme in three Scottish and twelve Welsh schools. The programme aims to encourage children to engage in different types of physical exercises on a daily basis. The desired outcomes for pupils include: increased motivation and improved concentration; raised physical awareness and sensory motor development, and injury prevention and self-care. Teachers' perceptions of the main goals of the class moves. The perceived goals for the class moves vary slightly from teacher to teacher but most include the following: to improve pupils' concentration in class, to diffuse restlessness among pupils in longer lessons, to facilitate a break from long periods where pupils are sedentary, to promote awareness among pupils of aspects of their body and movement, e.g. posture, consequences of movement, and physiology, to promote group work among pupils and to learn about their peers, to teach them skills they can use elsewhere. Few teachers will use all of these goals or aims to inform each session. Some use the sessions simply as a fun break for the children, others use them to give pupils more exercise and others use them mainly as a teaching

tool for the children to learn about their own bodies and other relevant parts of the curriculum (17).

## **2.5 Reinforcement factors**

Public health staff will support teachers in their role of educating students about health but will not routinely be involved in direct classroom teaching. But only collaborate with the schools to coordinate, organize and deliver school staff in services review and develop resources and also provide consultation and recommend health-related resources (18).

Kelder, Parcel, & Perry, 1995 conducted study that the important aspect for the implementation of health promotion programs. Ideally, teachers, administrators, parents and other interested citizens would participate in discussions to increase their awareness of the importance of school health promotion (19). For controlling infections disease like malaria and it is important for awareness of pupils and community that how a clean and safe environment protect them form disease and illness for this purpose if teachers lack the necessary training in health related areas, so they need support and motivation through training, provision of teaching materials and recognition for their work. For the upgrading the teachers' knowledge and skills in the health field involves developing simple training courses, preferably accompanied by support materials such as manuals and guides (9).

The School Health Education Commission of the European Community is making efforts to improve school health education in the European Community countries as well as the commission present a model called the Health Promoting School,. The model is being promoted through three stages: 1) national conferences held in each European Community country, 2) summer schools to provide teacher training, and 3) national projects, supported by the World Health Organization, agreement conducted to determine the efficacy of the Health Promoting School Model (20).

Teachers need to receive training and information to incorporate effectively issues related to health and the environment in their subject area. Teachers could be provided with information about basic relationships between the environment and health, and with learning materials to make the content interesting to their students. They could also be instructed on how to generate a feeling of responsibility toward the environment. Teachers primarily responsible for health and science education could receive training in implementing a curriculum targeted at health issues related to the physical environment of the school and local community. This training could be continuous and address content and teaching strategies. All teachers should serve as role models for students by demonstrating responsible classroom management practices. They should be encouraged to keep their classrooms healthy by providing adequate ventilation, cleaning them with non-toxic cleaning products, minimizing/eliminating mold growth, disposing waste properly, and recycling classroom materials (21).

The success of health promotion in schools. It depends on the joint efforts of both the health and education sectors. A comprehensive programme is needed to include teachers' training, curriculum development, community participation, changing policies, practices, and research (22). The health promoting school has emerged as a comprehensive framework to enhance the health status and health potential of school students. For this reason teachers to be proactive in a number of areas beyond the formal curriculum. A number of teachers were interviewed and surveyed in a sequential study to ascertain their understanding of what constitutes a health promoting school. The findings indicate that teachers think mainly about school health in terms of the curriculum; have little understanding of about community involvement and have limited pre-service and in-service training in health issues and as well as building blocks of the health promoting school; closer collaboration between the health and education sectors; and a recognition by the community that schools cannot easily address (and solve) society's health concerns (23).

The health promoting school. In such a school, teachers have liability to establishing a caring, safe and healthy environment that will encourage and support

student learning. This involves establishing positive relationships with students and other staff as well as instruction in the personal development and health curriculum area. As well it acknowledges the health needs of the staff. This course is designed to help prospective teachers to understand the broader perspective of schools that go beyond classroom instruction to enable them to contribute to the personal development, health and welfare aspects of schooling (24).

The Pan American Health Organization, Regional Office of the World Health Organization launched the Health-Promoting Schools Regional Initiative in 1995 to strengthen health promotion and education, where children, parents, teachers and also other members of the school community live, learn, work and play. Through technical cooperation with and among member countries, the Initiative aims to build consensus between the health and education sectors (25).

A health-promoting school can be characterized as a school constantly strengthening its capacity as a healthy setting for living, learning and working for students and staff. The functional components of health-promoting schools include the creation and implementation of policies and practices supporting health, the inclusion of health education in the curriculum, the creation of a healthy school environment, the organization of health services for students and staff, the serving of healthy food, cooperation between the schools and the communities, the involvement of the whole school personnel in health-promoting activities and the organization of extracurricular activities that promote physical, mental, social health and well-being. Reinforce physical activity among active young people, counsel inactive young people about physical activity and refer young people to appropriate physical activity (26).

## **2.6 Precede-proceed model**

Precede/proceed model is developed by L. Green's and M. Krueter. This model, appropriate health education is considered the intervention (treatment) for a properly diagnosed problem in a target population. Precede allows for application in a

variety of settings such as school health education, patient education, community health education, and direct patient care settings. Proceed was added to the framework in recognition of the emergence of and need for health promotion interventions that go beyond traditional educational approaches to changing unhealthy behaviors. The precede/proceed model contains nine steps there are five phases about precede and other four phases are proceed.

### **Phase 1 – Social diagnosis**

The focus of this phase is to identify and evaluate the social problems, which impact the quality of life of a target population. This requires program planners to gain an understanding of the social problems, which affects the quality of life of the patient, consumer, and student. This followed by the establishment of a link between these problems and specific health problems, which may become the focus of health education. Methods used for social diagnosis may be one or more of the following: Community forums, nominal groups, focus groups, surveys, interviews and central location intercept

### **Phase 2 – Epidemiological diagnosis**

It helps identify behavioral and environmental factors related to the quality of life issues. The focus of this phase is to identify specific health problem and non health factors which are associated with a poor quality of life. Describing these health problems can: 1) help establish relationships between health problems, other health conditions, and the quality of life; 2) lead to the setting of priorities which will guide the focus of program development and resources utilization; and 3) make possible the delineation of responsibilities between involved professionals and organizations and agencies examples of Epidemiological data: vital statistics, years of potential life loss, disability, prevalence, morbidity, incidences, and mortality.

### **Phase 3 – Behavioral and environmental diagnosis**

This phase focuses on the systematic identification of health practices and other factors which seem to be linked to health problems defined in Phase 2. This includes non-behavioral causes (personal and environmental factors) that can contribute to health problems, but are not controlled by behavior. These could include genetic predisposition, age, gender, existing disease, climate and workplace, the adequacy of health care facilities etc. It is critical that a behavioral diagnosis is completed for each health problem identified on Phase 2. This will allow all the planners to choose target behaviors, which will become the focus of specific educational, interventions.

### **Phase 4 – Educational diagnosis**

This phase assesses the causes of health behaviors, which were identified in Phase 3. Three kinds of causes are identified - predisposing factors, enabling factors, and reinforcing factors.

**Predisposing Factors:** Any characteristics of a person or population that motivates behavior prior to the occurrence of that behavior. Knowledge, beliefs, values and attitudes.

**Enablers:** Characteristic of the environment that facilitates action and any skill or resource required to attain specific behavior. Accessibility, availability, skills and laws (local, state, federal).

**Reinforces:** Rewards or punishments following or anticipated as a consequence of a behavior. They serve to strengthen the motivation for behavior. Family, peers and teacher.

**Phase 5 –Administrative and policy diagnosis:** This phase focuses on the administrative, organizational and prior to program implementation. This includes the

assessment of resources, budget development and allocation, development of an implementation timetable, organization or personnel within programs, and coordination of the program with all other departments, and institutional organizations and the community.

### **Phase 6 – Implementation of the program**

**Phase 7 – Process evaluation:** Is used to evaluate the process by which the program is being implemented.

**Phase 8 – Impact evaluation:** Measures the program effectiveness in terms of intermediate objectives and changes in predisposing, enabling, and reinforcing factors.

**Phase 9 – Outcome evaluation:** Measures change in terms of overall objectives and changes in health and social benefits or the quality of life. It takes a very long time to get results and it may take years before an actual change in the quality of life is seen (27).

## **2.7 Thailand health promotion for the school age and adolescent groups**

### **2.7.1 Health Promotion**

Health promotion programs are mostly implemented by public sector agencies and NGOs with a variety of approaches. Examples include health behavior modification for positive impacts on health, social environment modification, congregation for self-help among those who have the same health problems, and individual and community encouragement for self-care.

### **2.7.2 Health promoting schools**

Ministry of Public Health has put an emphasis on a new approach of health promotion involving schools as a focal point of community health promotion in order to create understanding and collaboration among agencies and organizations, as well

as developing local personnel capacity for the health promoting schools. An urgent operation of health promoting schools was executed in each Tambon (Sub-district) throughout the country-one health promoting school in one Tambon (28).



## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 Research design**

This study is a cross-sectional descriptive study. The data was collected by interview through structured questionnaire from the seven primary school teachers which are located at Puthamonthon district, Nakhonpathom, Thailand. At first, 179 questionnaires were distributed among primary school teachers to the seven primary schools, after one week the questionnaires were collected from the respondents. The aim of this study to find out the attitudes towards health promotion among primary school teachers' at Puthamonthon district, Nakhonpathom, Thailand.

#### **3.2 Study population**

The study population is primary school teachers' at Puthamonthon district, Nakhonpathom, Thailand.

#### **3.3 Research instrument**

A structured questionnaire was developed for this study. After that the questionnaire has been translated from English to Thai language. Pre-test was done among 15 primary school teachers before the real data collection has been made. After that questionnaire has been finalized for final data collection.

#### **3.4 Data collection and sampling technique**

The data were collected purposely from the seven school teachers in Puthamonthon district, Nakhonpathom, Thailand. One hundred and seventy nine questionnaires were distributed to seven school teachers as 150 questionnaires were

received and returned back from the respondents. The schools were chosen on the location of the area purposely. Upon, completion of the data collection, data processing was performed by the researcher step by step. After the cleaning of data then data were coded and rechecked the values of the data as well as make questionnaire file in Epi6 for entering the data.wh

### 3.5 Data analysis

After data entry by the EPI6, the data were transferred to Minitab software package for analysis. The statistical data analysis was planned as follows immediately after the data cleaning the descriptive statistic was done for frequency and percentage to show the socio-demographic characteristics, attitudes, and knowledge of the respondents of this study.

## CHAPTER 4

### RESULTS

This cross-sectional descriptive study was conducted at district Puthamonthon, Nakhonpathom, Thailand. The total respondents were 150. The study was aimed to describe the attitudes and knowledge of the primary school teacher's on health promotion in the school. The result of this study was presented for socio-demographic characteristics, attitudes, and knowledge of the primary school teacher's on school health promotion. For the analysis for this descriptive study simply frequency and percentage was used.

**Table 1** Frequency and percentage distribution of school teachers by socio-demographic characteristics

Socio-demographic characteristics	Number n= 150	Percentage (%)
<b>Age (years)</b>		
21-31	27	18.0
32-41	16	10.6
42-51	79	52.6
52-60	28	18.6
<b>Mean= 43.4 St. Dev = 9.58 Min= 21 Max= 59</b>		
<b>Gender</b>		
Male	32	21.3
Female	118	78.7
<b>Marital Status</b>		
Single	46	30.7
Married	95	63.3
Separated/Divorced	7	4.7
Widow	2	1.3

**Table 1** Frequency and percentage distribution of school teachers by socio-demographic characteristics (cont.)

<b>Socio-demographic characteristics</b>	<b>Number n = 150</b>	<b>Percentage (%)</b>
<b>Education</b>		
Bachelor's degree	134	89.3
Master's degree	16	10.7
<b>Income</b>		
<5001Baht	1	0.7
5001-10000 Baht	29	19.5
10001 to 15000 Baht	17	11.3
>15000 Baht	103	69.1
<b>Teaching Experience (Year of teaching)</b>		
0-9	30	20.0
10-19	25	16.6
20-29	76	50.6
30-39	19	12.6
<b>Mean= 19.2 St. Dev = 9.9 Min=0 Max= 36</b>		
<b>Teaching Subject</b>		
Religion	1	0.7
English and other language	7	4.7
Mathematics	10	6.7
Science	8	5.3
Thai	18	12.0
Teach more than two subjects	87	58.0
Others	19	12.7

**Socio demographic variable of the school teachers (Table 1)**

The general characteristics of the respondent included age, gender, marital status, education, income, teaching experience and teaching subjects:

**Age**

The age of the primary school teacher's were ranged from 21 to 60 while the mean 43.4 and standard deviation 9.5. Between 21 to 31 years were 18.0%, the age group 32 to 41 years were 10.6% as well as the majority age group between 42 to 51 years 52.6% and the rest of the age respondents group 52 to 60 years 18.6% of primary school teacher's.

**Gender**

The numbers of female respondents were 78.7% of the schoolteachers and the rest only 21.3% were male.

**Marital Status**

The answers of married respondent were 63.3% while single were 30.7% as well as 4.7% were either separated/divorced and 1.3% was widow.

**Education**

The education level was categorized in different level of education certificate, diploma, bachelor's degree, and master's degree in the questionnaire. But after the data collection among respondents only bachelor's and master degree respondents were found. The percentages of the bachelor's degree were 89.3% while the percentages of the master's degree were 10.7%.

**Income**

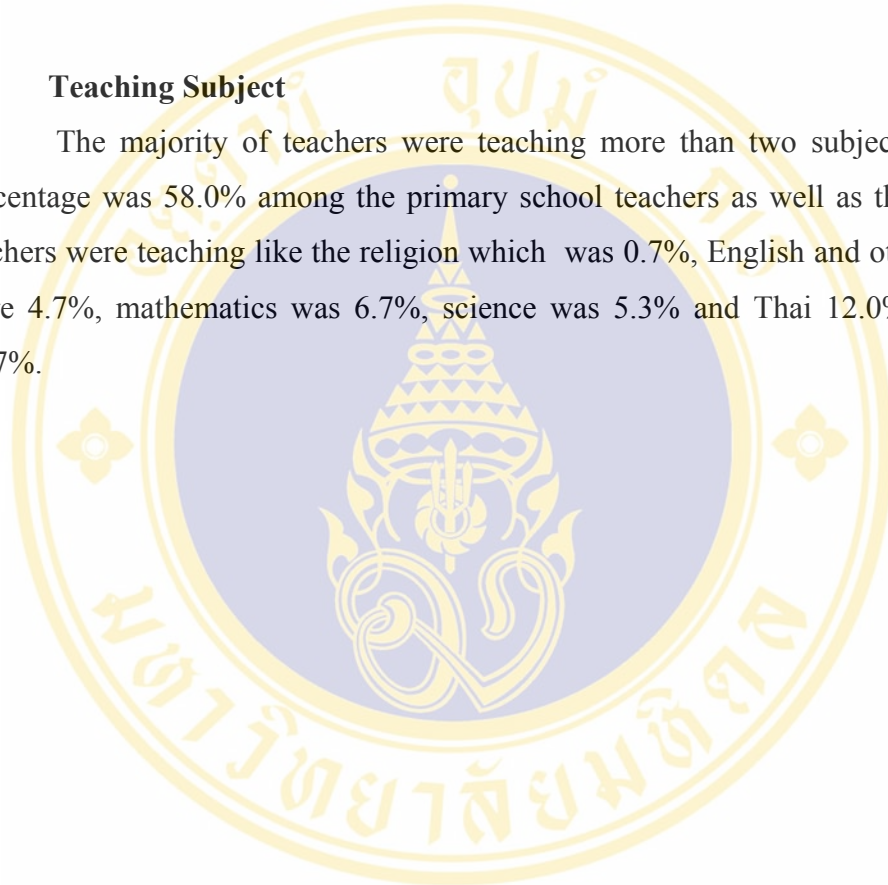
The percentage for the income of school teachers were varied, it was different from 5001-10000 Baht were 19.5%, for 10001 to 15000 Baht which were 11.3% and the majority of the respondents were found which have more than 15000 Baht were 69.1% income per month of the school teachers

**Teaching experience (Year of teaching)**

For the teaching experience in this survey found that those which have less than 9 years experience were 20.0%, while for 10 to 19 years 16.6%, as well as the majority of teacher's have experienced from 20 to 29 years 50.6 % and from 30 to 39 were 12.6%. The Mean = 19.2 and the Dev = 9.9 for the school teachers respondents.

**Teaching Subject**

The majority of teachers were teaching more than two subjects where the percentage was 58.0% among the primary school teachers as well as the rest of the teachers were teaching like the religion which was 0.7%, English and other language were 4.7%, mathematics was 6.7%, science was 5.3% and Thai 12.0% and others 12.7%.



**Table 2** Frequency and percentage distribution of school teachers by attitude on health promotion schools

Items	Number n=150		
	Agree n (%)	Disagree n (%)	Not sure n (%)
<b>Attitudes on physical exercise</b>			
Exercise is necessary for healthy life	149 (99.3)	1(0.7)	0 (0.00)
<b>Attitudes on nutrition promotion</b>			
Sugar is the source of energy for children	68 (45.3)	20 (13.3)	62 (41.4)
Promote eating vegetables is considered benefit for the healthy life	113 (75.3)	35 (23.3)	2 (1.4)
<b>Attitudes on preventive disease</b>			
Available of waste bins for such as in class room and school's garden are important	124 (82.6)	22 (14.6)	4 (2.8)
Personal hygiene such as take a bath, washing hand can also prevented diarrhea	140 (93.4)	5 (3.3)	5 (3.3)
Worms can be prevented by using toilet properly	109(72.6)	26 (17.3)	15 (10.1)
<b>Attitudes on management skills</b>			
School health promotion has enough policies	40 (26.6)	82 (54.6)	28 (18.8)
School health promotion should not be the responsibility of students and their guardians	136 (90.6)	11(7.3)	3 (2.1)
<b>Attitudes on healthy behaviors</b>			
Health promotion policy is responsible for good health condition among school children	143 (95.3)	3 (2.0)	4 (2.7)
Health promotion purposes exercise will reduced the number of obesity among children	133 (88.6)	6 (4.0)	11(7.4)
Health promotion is good practice, so the children can achieve good health behavior	143 (95.3)	2 (1.3)	5 (3.4)

According to the teachers attitudes majority 99.3% have positive attitudes about physical exercise and 0.7% were disagreed about physical exercise is necessary for healthy life.

Regarding sugar as the source of energy for the school students 45.3% respondents were agreed for healthy life and 13.3% were disagreed and to promote eating vegetables 75.3% were agreed and 23.3% respondents were disagreed that eating vegetable good for health.

As for as attitudes for the preventive diseases, waste bins use in the class room and in the school's garden 82.6% were agreed and 14.6% disagreed. For personal hygiene such as take a bath, washing hands for diarrhea prevention 93.4% respondents were agreed and 3.3% respondents were disagreed and the use of toilet for worms' prevention 72.6% agreed while 17.3% were disagreed with this statement.

Attitudes on management skills there were 26.6% agreed and 54.6% of the respondents were disagreed with that school has enough school health promotion policies and 90.6% agreed while 7.3% of respondents disagreed on school health promotion should not be the responsibility of students and their guardians.

Regarding the attitudes on healthy behaviors 95.3% of the respondents have agreed that health promotion policy is responsible for good health condition among school children 88.6% respondents agreed that exercise reduced obesity and 95.3% agreed that health promotion is good practice so that children can achieve good health behavior (table 2).

**Table 3** Distribution of the respondents by level of attitude

<b>Level of attitude</b>	<b>Frequency (n=150)</b>	<b>Percent (%)</b>
High attitude ( Score 26-33)	137	91.33
Moderate attitude (Score 19 -26)	13	8.67
<b>Mean = 28.95    St. Dev =2.19,</b>	<b>Min =23</b>	<b>Max =33</b>

Table 3 showed that majority 84.67% of the respondents has high attitude regarding health promotion. Only 15.33% had moderate attitude but none had low attitude. The mean was 28.95 with standard deviation 2.14. The minimum and maximum score was 23 and 33 respectively.

**Table 4** Frequency and percentage distribution of school teachers by predisposing factors of school health promotion Frequency and percentage of the correct answers Knowledge on school health promotion

Items	n= 150	
	Correct n (%)	Incorrect n (%)
<b>Knowledge on basic health</b>		
The importance of physical exercise	143 (95.3)	7 (4.7)
The importance of recreation facilities	71 (47.3)	79 (52.7)
Food causes obesity	128 (85.3)	22 (14.7)
The requirement of exercise per week	121(80.6)	29 (19.4)
<b>Knowledge on public services</b>		
The importance of school canteen	130 (86.6)	20 (13.4)
The importance of water use in the schools	109 (72.6)	41(27.4)
The importance of toilets in the schools	68 (45.3)	82 (54.7)
<b>Basic general knowledge</b>		
The importance of outdoor education (Professional skills)	126 (84.0)	24 (16.1)
The dangers of waste	90 (60.0)	60 (40.0)
<b>Communication skills</b>		
The importance of student interaction	65 (43.3)	85 (56.7)

For the knowledge importance of physical exercise 95.3% respondents were answered positive and for recreation facilities 47.3% agreed and as for the causes of obesity 85.3% respondents answered correctly while for the requirement of exercise 80.6% respondents also answered correctly.

About the public services, the importance of school canteen 86.6%, while for the water use in the school 72.6% answered correctly that the teachers have good knowledge on these services and for the importance of toilet in the school 54.7% respondents were disagreed and answered incorrect.

As for the basic general knowledge of the school teachers about outdoor education 84.0% and the dangers of waste 60.0% have good knowledge on school health promotion answered correctly.

In addition, for the communication skills, like student-student interaction 43.3% respondents were answered correctly and 56.7% answered incorrectly (table 4).

**Table 5** Distribution of the respondents by level of knowledge

Level of Knowledge	Frequency (N)	Percentage (%)
Good knowledge (>80%)	17	11.33
Fair knowledge (60-80%)	111	74
Poor knowledge (<60%)	22	14.67
<b>Mean = 7.01</b>	<b>St.Dev =1.45 Min = 3</b>	<b>Max = 10</b>

Table 5 showed that that majority 74% of the respondents had fair knowledge. Only 11.33% had good knowledge. The minimum and maximum score was 3 and 10 respectively. The mean score was 7.01 with SD = 1.45.

**Table 6** Distribution of the respondents by teacher’s belief and knowledge on health promotion skill

Items	n=150			
	Yes		No	
	(n)	(%)	(n)	(%)
<b>Teacher beliefs about health promotion</b>				
The present school health promotion program is enough	22	14.6	128	85.4
The existing situation of school promotion needs to be improved	136	90.6	14	9.4
The school health promotion will have positive result in the future	146	97.3	4	2.7
Positive result of the school health promotion experience should be expanded in whole country in the future	147	98.0	3	2.0
<b>Teacher knowledge about health promotion skills</b>				
Teach for the skill development of school children to improve their behaviors about health promotion	143	95.3	7	4.7
Health services activities for the school teachers, to provide to the school children to develop their practices	105	70.0	45	30.0
Information and materials to teach the students and enhance yourself and students skills for awareness about hazardous situations to avoid those whenever possible	80	53.3	70	46.7
Improve skills to teach the school teacher for the school health promotion	146	97.3	4	2.7

According to the teachers' beliefs, 85.4% of teachers mentioned that the present school health program is not enough and 90.6% for the existing situation of school health promotion needs to be improved. For the positive result on school health promotion, 97.3% of respondents and for the positive experience, it should be expanded in the whole country, 98.0% of respondents also said 'yes'.

About the development of the school children's behaviors for school health promotion, 95.3% of health services activities for the school teachers to teach the school children to develop their practices, 70.0% of information and materials to teach the students, and to enhance students' skills for awareness for the development about hazardous situations, 53.3% answered 'yes'. For the improvement of skills to teach the students for the school health promotion, 97.3% of the respondents also answered 'yes' (table 6).

**Table 7** Frequency and percentage distribution of school teachers by reinforcement factors on school health promotion

Items	n=150			
	Yes		No	
	(n)	(%)	(n)	(%)
Institutional support about school health promotion				
Assistance from the board of education for the school health promotion	116	77.3	34	22.7
School health promotion other school teachers ever appreciated you	111	74.0	39	26.0
Guidance from school authority about school health promotion activities	124	82.6	26	17.4
Training in health promotion				
Ever received short training course about school health promotion	75	50.0	75	50.0
Satisfaction with the existing training of the school health promotion	91	60.6	59	39.4
Trained teacher teach well about healthy promotion	127	84.6	23	15.4

**Table 7** Frequency and percentage distribution of school teachers by reinforcement factors on school health promotion (cont.)

Items	n=150			
	Yes		No	
	(n)	(%)	(n)	(%)
<b>Health information about school health promotion</b>				
Information about school health promotion from education board	112	74.6	38	25.4
Receiving any health promotion information from other sources	61	40.7	86	59.3
Information from school authority regarding school health promotion	109	72.6	41	27.4
Teacher about school health promotion activities have received any information from your colleagues	101	67.3	49	32.7
<b>Family support</b>				
Support from student family for the betterment of school health promotion	80	53.3	70	46.7
Received any appreciation from other member of the family	143	95.3	7	4.7
Scope towards parents to provide the information about school health promotion	125	83.3	25	16.7
<b>Peer support</b>				
Consult with friends about school health promotion activities	126	84.0	24	16.0
Support for the sanitation, and other physical activities from the peer	131	87.4	19	12.6

For the institutional support about assistance from the board of education 77.3% respondents, for other school teachers ever appreciated regarding the health promotion activities 74.0%, guidance from the school authority 82.6%, respondents express their opinion ‘yes’.

Regarding that ever received short training course on school health promotion 50.0% respondents expressed positive opinion as well as satisfaction with the existing training 60.6 were satisfied while trained teacher teach well about health promotion 84.6% respondents answered 'yes'.

As for the information about the school health promotion from education board 74.6% said that they are receiving enough information from school board. Information from other sources 59.3% respondents answered 'no' that they are not getting full information from the other sources. Information from school authority 72.6% said that the school authority provides a lot about the health information. Teaching about school health promotion activities whether they have received any information from colleagues 67.3% respondents answered 'yes'.

Support from the student's family for the betterment of school health promotion 53.3% respondents answered that it's better to have family support for school health promotion. Regarding received any appreciation from other members of the family 95.3% were positive answered. Scope towards parents to provide the information about school health promotion 83.3% respondents agreed with this statement and expressed 'yes'.

As for the support from friends, about school health promotion 84.0% respondents received support from their friends. About the sanitation, and other physical activities 87.4% respondents also showed positive expression about support towards school health promotion (table 7).

**Table 8** Relationship between socio-demographic characteristics with attitudes towards school health promotion among primary school teachers

Socio-demographic Characteristics	Attitudes towards school health promotion		P-Value
	High 3 (137) n (%)	Moderate 2 (13) n (%)	
<b>Age (years)</b>			P-Value= 0.65 $\chi^2= 1.60$
21-31	23 (85.19)	4 (14.81)	
32-41	15 (93.75)	1(6.25)	
42-51	73 (92.41)	6 (7.59)	
52-60	26 (92.86)	2 (7.14)	
<b>Gender</b>			P-Value = 0.87 $\chi^2= 0.02$
Male	29 (90.63)	3 (9.38)	
Female	108 (91.53)	10 (8.47)	
<b>Marital Status</b>			P-Value = 0.92 $\chi^2= 0.01$
Married , Separated/Divorced	93 (93.16)	9 (8.84)	
Single, Widow	44 (43.84)	4 (4.16)	
<b>Education</b>			P-Value = 0.071 $\chi^2=3.26$
Bachelor’s degree	109 (89.34)	13 (10.66)	
Master’s degree	28 (100.0)	0 (00.0)	

Fisher exact test 2/2 contingency table

**Table 8** Relationship between socio-demographic characteristics with attitudes towards school health promotion among primary school teachers (cont.)

Socio-demographic Characteristics	Attitudes towards school health promotion		P-Value
	High 3 (137) n (%)	Moderate 2 (13) n (%)	
<b>Income</b>			P-Value = 0.20 $\chi^2 = 1.60$
5001-10000 Baht, 10001 to 15000 Baht	40 (42.01)	6 (3.99)	
<5001Baht, >15000 Baht	97 (94.99)	7 (9.01)	
<b>Teaching Experience (Year of teaching)</b>			P-Value = 0.17 $\chi^2 = 4.93$
0-9	25 (83.33)	5 (16.67)	
10-19	25 (100.0)	0 (00.0)	
20-29	70 (92.11)	6 (7.89)	
30-39	17 (89.47)	2 (10.53)	
<b>Teaching Subject</b>			P-Value = 0.48 $\chi^2 = 0.48$
Religion, English, Mathematics and others	40 (41.10)	5 (3.90)	
Science, Thai, Teach more than two subjects	97 (95.90)	8 (9.10)	

Fisher exact test 2/2 contingency table

Relationship between socio-demographic characteristics with attitudes towards school health promotion among primary school teachers

Table 8 it was found that among 7 variables of socio-demographic characteristics have no significant value were found. There were no significant association between teachers' attitudes towards school health promotion and socio-demographic variables.

Regarding the association between socio-demographic variables and the teacher’s attitudes towards school health promotion the P-Value >.05 for all variables.

**Table 9** Relationship between knowledge and attitudes of school teachers on school health promotion

Level of Knowledge	Attitudes towards school health promotion		P-Value
	High 3 (137) n (%)	Moderate 2 (13) n (%)	
Good knowledge (> 80%)	16 (94.12)	1(5.88)	P-Value = 0.9 $\chi^2= 0.18$
Fair knowledge (60-80%)	101(90.99)	10 (9.01)	
Poor knowledge (<60%)	20 (90.91)	2 (9.09)	

Table 9 regarding the association between knowledge and dependent variable which is teachers attitudes towards school health promotion, no significant association were found, the P-Value = 0.9.

## CHAPTER 5

### DISCUSSION

In this chapter emphasis on the socio-demographic characteristics, attitudes and knowledge of health promotion activities in the primary schools.

#### 5.1 Attitude of school teachers on health promotion schools

According to the teachers attitudes majority of 99.3% respondents have positive attitudes that physical exercise is necessary for healthy life. Regarding sugar as the source of energy for the school students 45.3% respondents were agreed for healthy life and 13.3% were disagreed there is difference for sugar eating among the respondents and for eating vegetables majority of 75.3% respondents were agreed and 23.3% respondents were disagreed that eating vegetable good for health.

Attitudes for the preventive diseases, waste bins use in the class room and in the school's garden 82.6% were agreed and 14.6% disagreed. They have high attitudes towards the waste bins for the sanitation in the class room and in the garden. For personal hygiene 93.4% were good attitudes among the respondents and 3.3% respondents were disagreed and the use of toilet for worms' prevention 72.6% agreed while 17.3% respondents were negative attitudes among the respondents however they also have good attitudes that with the use of toilet worms can be prevent.

The department of Formal Education, Technical Department, and the Department of Mental Health, which enable teachers to provide assistance and care to students particularly in preventive aspects. The system is operated by counseling teachers under school support and external cooperation. It's contains several steps, familiarizing each student, screening students, supporting, preventing and solving problems and transferring to concerned organization. But some problem with the work system i.e. limited time, no specific pattern, and lack of teamwork among teachers at each level Moreover, counseling teachers and guidance teachers lacked the

skills to provide assistance, and were unable to build trust among students and also lacked of parents cooperation (11).

Attitudes on management skills there were 26.6% agreed and 54.6% of the respondents were negative opinion with that school have enough school health promotion policies and 90.6% agreed while 7.3% of respondents disagreed on school health promotion should not be the responsibility of students and their guardians. It means that it should be the responsibility of school teachers.

In the broadest sense, knowledge and skills are needed for active participation in sustainable health promotion efforts. Ability to participate means empowerment the power of individuals, organizations and communities to support approaches that promote or improve health (9).

As for the attitudes on healthy behaviors 95.3% of the respondents were agreed that health promotion policy is responsible for good health condition among school children 88.6% respondents agreed that exercise reduced obesity and 95.3% agreed that health promotion is good practice. The teacher's have high attitudes towards healthy behavior, so that children can achieve good health behavior.

The School Health Education Commission of the European Community is making efforts to improve school health education in the European Community countries as well as the commission present a model called the Health Promoting School,. The model is being promoted through three stages: 1) national conferences held in each European Community country, 2) summer schools to provide teacher training, and 3) national projects, supported by the World Health Organization, agreement conducted to determine the efficacy of the Health Promoting School Model (20).

## 5.2 Predisposing factors of school health promotion

For the knowledge importance of physical exercise 95.3% and recreation facilities 47.3% and 52.6 answered incorrectly. There is little difference to improve the knowledge of the school teacher's for recreation facilities. As for the causes of obesity 85.3% respondents agree while for the requirement of exercise 80.6% respondents answered correctly. The teacher's have good knowledge on these health promotion activities. It's mean that these are the important elements in the schools to improve the primary school student's health.

Kelder, Parcel, & Perry, 1995 conducted study that the important aspect for the implementation of health promotion programs. Ideally, teachers, administrators, parents and other interested citizens would participate in discussions to increase their awareness of the importance of school health promotion (19).

About the public services, the importance of school canteen 86.6%, while for the water use in the school 72.6% and for the importance of toilet in the school 45.3% respondents were answered correctly and 54.6% answered incorrectly. It's also almost good knowledge on the importance of toilet use. The teachers have good knowledge on these services. The teacher's also have good knowledge on public services it means that these elements play important role about public services.

As for the basic general knowledge of the school teachers about outdoor education 84.0% and the dangers of waste 60.0% have good knowledge on school health promotion. In addition, for the communication skills, like student-student interaction 43.3%, in this case the teachers have poor knowledge on student's interaction. Regarding to this the teacher's should be emphasis's and also know that how to improve these activities to improve the health promotion activities among the students.

Teachers reported exhausting education-based resources before seeking external advice. Most had positive experiences of child mental health services and

were keen to be more involved. They favoured a service that provided rapid advice and ongoing support. Many complained about problems in communication (12).

According to the teachers' beliefs 85.3% of teachers mentioned that the present school health program is not enough for this result the teacher's need more knowledge and materials for health promotion activities and 90.6% for the existing situation of school health promotion needs to be improved. For the positive result on school health promotion 97.3% respondents and for the positive experience should be expanded in the whole country 98.0% respondents said 'yes'.

A study conducted for the assessing knowledge, attitudes and beliefs about bullying used in a study of pre-service teachers in the United Kingdom was replicated on a sample of 82 pre-service teachers in the United States. Results were similar for both groups of pre-service teachers. Participants had some accurate knowledge as well as some beliefs and attitudes that would not be consistent with effective teacher behaviors towards students involved in bullying. Both samples were interested in further training as part of their teacher preparation programs. Implications for training of pre-service teachers are discussed (13).

Teacher's knowledge about health promotion skills. About the development of the school children behaviors for school health promotion 95.3% health services activities for the school teachers to teach the school children to develop their practices 70.0% information and materials to teach the students and enhance students' skills for awareness for the development about hazardous situations 53.3% answered 'yes'. For the improvement of skills to teach the students for the school health promotion 97.3% of the respondents also answered 'yes'. It's mean that teacher's have enough knowledge on health promotion skills. In the broadest sense, knowledge and skills are needed for active participation in sustainable health promotion efforts. Ability to participate means empowerment the power of individuals, organizations and communities to support approaches that promote or improve health (9).

### 5.3 Reinforcement factors on school health promotion

For the institutional support about assistance from the board of education 77.3% respondents, for other school teachers ever appreciated health promotion activities 74.0%, guidance from the school authority 82.6%, respondents express their opinion 'yes'. The teacher's received enough support from departments and also from their colleagues for the improvement of school health promoting activities. Regarding the training in health promotion, that ever received short training course on school health promotion 50.0% respondents expressed positive opinion as well as satisfaction with the existing training 60.6% were satisfied while trained teacher teach well about health promotion 84.6%, respondents answered 'yes'. It's mean that they receiving enough training in these fields due to this they can received good results from there training.

Teacher's need to receive training and information to incorporate effectively issues related to health and the environment in their subject area. Teachers could be provided with information about basic relationships between the environment and health, and with learning materials to make the content interesting to their students. They could also be instructed on how to generate a feeling of responsibility toward the environment. Teachers primarily responsible for health and science education could receive training in implementing a curriculum targeted at health issues related to the physical environment of the school and local community. This training could be continuous and address content and teaching strategies. All teachers should serve as role models for students by demonstrating responsible classroom management practices. They should be encouraged to keep their classrooms healthy by providing adequate ventilation, cleaning them with non-toxic cleaning products, minimizing/eliminating mold growth, disposing waste properly, and recycling classroom materials (21).

As for the health information about the school health promotion from education board 74.6% said that they are receiving enough information from school board. Information from other sources 59.3% respondents answered 'no' that they are

not getting full information from the other sources. Information from school authority 72.6% said that the school authority provides a lot about the health information. Teaching about school health promotion activities whether they have received any information from colleagues, 67.3% respondents answered 'yes'.

Support from the student's family for the betterment of school health promotion 53.3% respondents answered that it's better to have family support for school health promotion. Regarding received any appreciation from other members of the family 95.3% were positive answered. The family members appreciated the teacher's that promote the health of our children by school health promoting activities Scope towards parents to provide the information about school health promotion 83.3% respondents agreed with this statement and expressed 'yes'.

As for the support from friends, about school health promotion 84.0% respondents received support from their friends. About the sanitation, and other physical activities 87.4% respondents also shows positive expression about support towards school health promotion. Consultation with other friends for the sanitation, and other physical activities they are getting good results on health promotion activities, peer support more important like other health promotion elements.

## CHAPTER 6

### CONCLUSION AND RECOMMENDATIONS

#### 6.1 Conclusion

This study was conducted to describe the attitudes and knowledge on school health promotion among school teachers in Puthamonthon district Nakhon pathom, Thailand. Attitudes in this study on school health promotion among school teachers were measured by using attitude physical exercise, nutrition promotion, preventive disease, management skill and healthy behaviors, the overall result of attitudes showed that 85.67% of the respondents had good attitudes whereas 15.33% had moderate attitudes. In items analysis it was revealed that highest number of respondent 99.3% agreed that physical exercise is necessary for health life and 95.3% agreed about health promotion policy is necessary for good health condition and for good practice so the children can achieve good health behaviour as nearly half of the respondents 54.6% disagreed with the school health promotion has enough policies.

Regarding knowledge of teachers on school health promotion, it was found from the questions about knowledge on basic health, knowledge on public services, basic general knowledge and communication the over all result showed that 74% of the respondents had fair knowledge, 11.33% had good knowledge and 14.67% had poor knowledge. In item analysis 95.3% respondents answered correctly about importance of physical exercise 85.3% of the respondents answered correctly about food causes obesity, nearly half of the respondents 52.6% has less concern about importance of students interaction in term of health promotion. There is little difference to improve the knowledge of the school teacher's for recreation facilities. For the importance of toilet in the school 54.6% respondents answered incorrectly. For the importance of toilets in the schools, the teachers should have more knowledge about benefit of toilet in the school.

For communication skills in this case item for student interaction 56.6% of the respondents answered incorrectly, they have poor knowledge. Respondents might need to learn more about student interaction and teaching to the students about health promotion should focus on healthy life. For the teachers beliefs also good one item, the present school health promotion program is enough 85.3% respondents answered incorrectly, according to the teachers knowledge that the present school health program is not enough for the implementation of the program, the teachers need more support in the form of materials and knowledge to promote healthy life of the students. For the others like knowledge on health promotion skills, institutional support, training in health promotion have good level of knowledge among respondents and for the health information only one item receiving information from other sources from the results showed that 59.3% respondents answered incorrectly. The study concludes that the teachers should get more information from other sources for the school health promotion, whereas for the family support, peer support the respondents showed high level of knowledge among school teachers.

## **6.2 Recommendations**

From the result of this study it was found that there were some items of school health promotion which were showed low attitudes and poor knowledge among school teachers towards school health promotion. Low level of attitudes were found for management skills, non available of school health promotion enough policies and for the knowledge, it was found that for the recreation facilities and for the knowledge on public services item the importance of toilets in the schools, whereas communication skills like student interaction and teachers beliefs regarding present school health promotion is not enough.

So for this study it is recommended that steps needs to be to improve the teacher's attitudes and knowledge. In this regard for the improvement of the attitudes and knowledge of the teachers towards school health promotion, there should be more attention and suitable health education, information and short health promotion and education training program need to be addressed for this target group of teachers at

primary school level. For this purpose to this target group of primary school teachers should be provided more education, information and short training courses for the improvement of school health promotion activities. Further study need to be done to asses respondents real needs and strategy development.



## REFERENCES

1. World Health Organization, Global health initiative, School health and youth health promotion. Available from; [http://www.who.int/school\\_youth\\_health](http://www.who.int/school_youth_health) [Accessed 2005 Sep 10]
2. World Health Organization. Health Promoting Schools. Striving for Better Health in South-East Asia. 1997-2000; 2: 59, 248-50.
3. William A. Suk, et al. Children's Health Review, Environmental Threats to Children's Health in Southeast Asia and the Western Pacific. August 2003; Vol. 111, N.10. P.1, 2. Available from: [www.who.int/heca/infomaterials/en/hecanet\\_ehparticle.pdf](http://www.who.int/heca/infomaterials/en/hecanet_ehparticle.pdf) [Accessed March 11, 2006].
4. Thailand. Ministry of Public Health. School health, Nutrition, Dental health. Thailand Health Profile: 1994. Thailand: The Ministry; 1994: P. 28-31.
5. World Health Organization. Regional Office for South East Asia Water Supply, Sanitation and the Children of Thailand. Regional Health Forum WHO South-East Asia Region. 7(1)
6. RIS School Clinic, Health Ministry launches drive on child nutrition, 42 Moo 4, Ramkhamhaeng, 184, Minburi, Bangkok 10510, Thailand. Available from: [www.rism.ac.th/Clinic/News](http://www.rism.ac.th/Clinic/News) [Accessed March 12, 2006].
7. WHO's Global School Health Initiative, Health Promoting Schools. P. 2-3.
8. American School Health Association, Health Promotion Programs for Faculty and Staff. 7263 State Route 43 / P.O. Box 708, Kent, OH 44240. Available from: [www.ashaweb.org/pdfs/resolutions/HlthProgFacStaff.pdf](http://www.ashaweb.org/pdfs/resolutions/HlthProgFacStaff.pdf) [Accessed March 12, 2006].
9. World Health, the Magazine of the World Health Organization. 1998 Mar-Apr; 5 (1); 1998 May-Jun; 5(2): 22; 1998; 5(3): 18
10. World Health Organization: 1994. School health promotion, regional office for the western pacific and national centre for the health promotion, department of public health, university of Sydney Australia. Geneva: WHO; 1994.

11. Situation of counseling. Situational Review of Adolescent Sexual Behavior, Life Skills Promotion and Counseling Services. Department of Mental Health, Ministry of Public Health supported by Thailand MOPH-US CDC Collaboration: 2004 July; P-50-51.
12. Anula Nikapota, 2000; Teachers' attitudes towards child mental health services, The royal college of psychiatrists Directorate of Child and Adolescent Psychiatry, South London, P. 24: 457-461. [Results] Available from: <http://pb.rcpsych.org/misc/terms.shtml>. [Accessed 2006 Jan 26]
13. Sheri Bauman. Knowledge and Beliefs about Bullying in Schools Comparing Pre-Service Teachers in the United States and the United Kingdom. School
14. WHO, Information series on school health document eleven, Oral Health Promotion: An Essential Element of a Health-Promoting School. Geneva: 2003. P. 26-27. Psychology International. 2005; 26(4): [428-442] [Abstract].
15. Reiner Hanewinkel, Martin Aßhauer. Fifteen-month follow-up results of a school-based life-skills approach to smoking prevention. Health Education Research. 2004 Apr; 19(2): [125-137] [Abstract].
16. First workshop on practice of evaluation of the health promoting school-models, 1998; experiences and perspectives, Links with the outside world, Bern/Thun, Switzerland, [Executive summary]: P.18.
17. Chris Roberts, Head of Evaluation Sue Bowker, Health Promotion Adviser (Schools and Youth). Evaluation of the Class Moves. Available from: <http://www.healthscotland.com> [Accessed 2005 Sep 24]
18. Toronto Public Health School Health Services, A Comprehensive School Health Approach.P-4. Available from: [www.toronto.ca/health/csh\\_complete\\_package.pdf](http://www.toronto.ca/health/csh_complete_package.pdf) [Accessed 2006 Jan 24]
19. Blake D. Poland, Lawrence W.Green, Irving Rootman. Multi component Interventions, Setting For Health Promotion, P. 97. from: [jech.bmjournals.com](http://jech.bmjournals.com)
20. Williams T, Jones H. School health education in the European Community. The Journal of School Health. 1993 Mar; 63 (3): 133-5. [Abstract].

21. The World Health Organization's. Integrating environmental health Improvements within various components of a health-promoting school. The Physical School Environment. An Essential Component of a Health-Promoting School, Information Services on School Health Document 2. P. 28.
22. A comprehensive "Healthy Schools Programme" to promote school health: the Hong Kong experience in joining the efforts of health and education sectors. [Abstract]. Available from: [jech.bmjournals.com](http://jech.bmjournals.com)
23. St Leger L. Australian teachers' understanding of the health promoting school concept and the implications for the development of school health. Health Promotion International; 13:223–35. 1998 [Abstract]. Available
24. Issues In School Health, Course Unit Outline 2001. [Rationale]. Available from: [alex.edfac.usyd.edu.au](http://alex.edfac.usyd.edu.au) [Accessed 2005 Nov 16]
25. Josefa Ippolito-Shepherd. United Nations Chronicle online edition, Health Education Health-Promoting Schools Initiative in the Americas, Area of Sustainable Development and Environmental Health, of PAHO, based in Washington, D.C. United States.
26. World Health Organization, promoting active living in and through school, Report of a WHO Meeting 25-27 May 1998, Esbjerg, Denmark, P.18, 24 [Online]. [whqlibdoc.who.int/hq/2000/WHO\\_NMH\\_NPH\\_00.4.pdf](http://whqlibdoc.who.int/hq/2000/WHO_NMH_NPH_00.4.pdf) [Accessed March 10, 2006].
27. L. Green's, Marshall Krueter. Precede proceed model, University of south Florida community and family health. Available from: [www.hsc.usf.edu/~kmbrown/PRECEDE\\_PROCEED\\_Overview.htm](http://www.hsc.usf.edu/~kmbrown/PRECEDE_PROCEED_Overview.htm) [Accessed 2006, Jan 9]
28. School Age and Adolescent Groups. In: Wibulpolpraset S. editor. Thailand Health Profile: 1999-2000. Nonthaburi: Ministry of Public Health; 2002. P. 383- 84.



## APPENDIX A QUESTIONNAIRE

### Attitudes towards school health promotion among primary school teachers' in Puthamonthon district, Nakhonpathom, Thailand

No \_\_\_\_\_

Date of interview: \_\_\_\_\_

Name of school: \_\_\_\_\_

Puthamonthon district, Nakhonpathom, Thailand

#### Part-1: Socio-demographic characteristics of the respondent

1). Age \_\_\_\_\_ years

**2). Gender:**

Male  Female

**3). Marital Status:**

Single  Married  Separated/Divorced  Widow/ Widower

**4). Education:**

Educational level of the teacher that attained

- Certificate
- Diploma
- Bachelor's degree
- Master's degree

**5). Income:**

How much your income per month?

- <5001Baht
- 5001-10000 Baht
- 10001 to 15000 Baht
- >15001 Baht

**6). Teaching Experience (Year of teaching):**

How many years teaching experience in the school?

\_\_\_\_\_ Years

**7). Teaching Subject:**

In the school, which subject mostly you, teach?

(You may choose multiple answers)

- Religion
- English and other language
- Mathematics
- Science
- Thai
- Other (specify)

**Part-2: Current situations regarding teachers' attitudes**

**Please read the statements together and put a tick  $\checkmark$  in the block according to your choice.**

Statements	Agree	Disagree	Not sure
8). Do you think exercise is necessary for healthy life?			
9). Do you think sugar is the source of energy for children?			
10). Promote eating vegetables is not considered benefit for the healthy life?			
11). Available of waste bins for such as in class room and school's garden are not important?			
12). Do you think personal hygiene such as take a bath, washing hand can also prevented diarrhea?			
13). Do you think worms can not prevent by using toilet properly?			
14). Do you think school health promotion have enough policies?			
15). Do you think school health promotion should not be the responsibility of students and their guardians?			
16). Are you sure good health promotion policy is responsible for good health condition among school children?			
17). Are you convinced that health promotion exercise will reduced the number of obesity among children?			
18). Do you think that health promotion is good practice, so the children can achieve good behavior?			

**Part-3: Predisposing factors (Please choose one best correct answer)**

**Level of knowledge of school teachers on health promotion:**

19) The importance of exercise for:

- Happiness                       Healthy life                       Other (specify)\_\_\_\_

20). The importance of school canteen is:

- School income                       Advance energy to students                       Other (specify)\_\_\_\_

21). The importance of outdoor education (professional skills) are:

- Utilization time                       Increase knowledge                       Other (specify)\_\_\_\_

22). The importance of recreation facilities are:

- Relaxing                       play game                       Other (specify)\_\_\_\_

23). The importance of student interaction are:

- Create more friends    Create friendship to help any works    Other (specify)\_\_\_\_

24). The importance of water use in schools, are:

- For garden use                       Toilet, washing hand                       Other (specify)\_\_\_\_

25). The importance of toilets in schools, are:

- For prevention of diseases    Daily use                       Other (specify)\_\_\_\_

26). The dangers of waste are:

- Spreading infectious diseases  
 Non infection diseases                       Other (specify)\_\_\_\_

27). Food causes obesity:  sugar                       vegetables                       fried Chicken/fast food

28). The requirement of exercise at least per week:

- 1 hour       2 hours       3 hours       more than 3 hours

**Teacher beliefs**

29). Are you sure that the present school health promotion program is enough?

- Yes       No

30). Are you sure that the existing situation of school promotion needs to improve?

- Yes       No

31). Do you belief that the school health promotion will have positive result in the future?

- Yes       No

32). Do you think that positive result of the school health promotion experience should be expanded in whole country in the future?

- Yes       No

**Teacher skills**

33). Do you ever try to teach for the skill development of school children to improve their behaviors about health promotion?

- Yes       No

34). Is there any health services for the school teachers, to provide to the school children to develop their practices?

- Yes       No

35). Have you ever been satisfied from these information and materials to teach the students and enhance yourself and students skills for awareness about hazardous situations to avoid those whenever possible?

- Yes       No

36). Do you need any assistance to improve your skills to teach the schools for the school health promotion?

Yes       No

**Part-4: Reinforcement factors (please choose only one correct answer)**

**Institutional support**

37). Do you have any assistance from the board of education for the school health promotion?

Yes       No

38). When you teach about school health promotion other school teachers ever appreciated you?

Yes       No

39). Have you ever received any guidance from school authority about school health promotion activities?

Yes       No

**Training in health promotion**

40). Have you ever received any short training course about school health promotion?

Yes       No

41). Are you satisfied with the existing training of the school health promotion?

Yes       No

42). Do you think that trained teacher may teach well about health promotion?

Yes       No

**Health information**

43). Do you have any information about school health promotion from government education board?

Yes       No

44). Are you currently receiving any health promotion information from other non government sources?

Yes       No

45). Have you ever received any information from school authority regarding school health promotion?

Yes       No

46). When you teach about school health promotion activities have you ever received any information from your colleagues?

Yes       No

**Family support**

47). Do you have any support from your student family for the betterment of school health promotion?

Yes       No

48). When you teach about school health promotion have ever received any appreciation from other member of the family?

Yes       No

49). Do you have any scope towards parents to provide the information about school health promotion?

Yes       No

**Peer support**

50). Have you ever-received support from colleagues, when you teach school health promotion?

Yes       No

51). Do you ever consult with your friends about school health promotion activities?

Yes       No

52). Your friends ever telling you about sanitation, and other physical activities?

Yes       No

**Thank you**



## BIOGRAPHY

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