

Application of Social Network in Healthcare Study of the Master's Degree Students, Faculty of Education from Kanchanaburi Province

Chusak Narkprasit

Bangkokthonburi University, Thailand

chusakdi@live.com

Abstract - The research objectives on application of social network in healthcare study of the Master's degree students aimed to study the behaviors and learning achievement in healthcare study applying Facebook social network. The population consisted of 56 Master's degree students, Faculty of Education, Bangkokthonburi University from Kanchanaburi province in the academic year 2014. The research tools comprised of 8 healthcare lessons, questionnaires and healthcare knowledge testing. The participants were mostly women, 83.93%. Their average age was 36 years, range from 24-56 years. There were only 5.36% of them had sickness from nutrition related-diseases (NRD) but 60.71% of them had relatives who suffered from NRD diseases. In behaviors analysis, it was found that 64.29% of them possessed good eating habit by avoiding sweetened, oily and salty foods. Most of them, 85.71% monitored their important food ingredients consumption. In exercises behavior most of them, 67.86% did exercises regularly. In healthcare knowledge, the result of the pretest's average score was 49.44% ($\mu = 7.91$, $\sigma = 1.97$) and the posttest's was 62.28% ($\mu = 9.96$, $\sigma = 1.17$). The posttest's score increased obviously over the mean score. In conclusion application of social network in healthcare study achieved the research objectives.

Keywords - Healthcare, Social Network

I. INTRODUCTION

The rapid change in technology in the last decade particularly internet and social network have had a tremendous impact on our society, business, politics and even life styles. The total numbers of people currently register with the popular social network services such as facebook, twitter, instagram etc. has jumped over 1,000 million people. Social network has not only provided opportunity for people to communicate and reconnect with old friends but also played an important roles in advertising, on line sales, marketing , payment, election campaign and learning. Social media has great advantages and drawbacks, it is up to individual user to use it wisely.

The rapid growth of the internet and social network have created innovative opportunities for eLearning. At the same time it also provides opportunities for health and nutrition education to improve healthcare and services to prevent human illness and diseases through innovative information and communication technology. It has considerable potential to help patients, health professionals, the elderly and disabled to consult the Web for medical information and resources from databases that are accessible to the public as well as physicians. The rising spread of the nutrition-related diseases causes a high burden to society in taking care of the patients and economy in disease treatment by patient's families and budget expenditure by government for healthcare and services. In order to struggle against this rising spread of the nutrition-

related diseases, appropriate and effective eLearning models in diseases prevention and health promotion are needed. Moreover healthcare and services need to be improved and made accessible to all groups of people and covering people who live both in the cities and rural areas.

II. RESEARCH OBJECTIVES

1. To apply facebook social network to study learning achievement in healthcare of the Master's degree students, Faculty of Education, Bangkokthonburi University from Kanchanaburi Province.

2. To apply facebook social network to study healthcare behaviors of the Master's degree students.

III. REVIEW OF RELATED LITERATURE

Sranacharoenpong, K. (2009). conducted research at University of Waterloo on "Application of Learning Technologies to Support Community-Based Health Care Workers and Build Capacity in Chronic Disease Prevention in Thailand" and concluded that eLearning was effective in deliver healthcare knowledge in chronic disease prevention to the healthcare workers in Thailand.

Narkpravit, C. (2010). conducted research on "Development of eHealth learning Model in Prevention of Nutrition – related Diseases for Senior Executives in Thailand " and found that applying web based internet to learning on prevention of nutrition – related diseases (NRD) was effective for senior executive which were the high risk group of the chronic diseases.

The World Health Organization (2005) reported that more than 1,000 million of the world population are overweight. Furthermore nutrition-related diseases such as cardiovascular diseases (CVD), diabetes, obesity, cancer and respiratory conditions, account for 59% of the 56.5 million deaths annually. Cardiovascular illness was the

number one disease accounting for 30% of the deaths annually. Unhealthy diet, lack of exercise and insufficient consumption of fruit and vegetables have been cited as significant inter-linking risk factors that cause the majority of these diseases.

IV. RESEARCH METHODOLOGY

The research instruments were developed following documentary research and experts consult. They consisted of 8 learning lessons, questionnaires and healthcare knowledge testing. There were divided into 4 parts.

1. Eight lessons were designed and installed on the Facebook, eLearning on healthcare in prevention of nutrition-related diseases. Each lesson was modified from the recognized sources such as Thai FDA, USFDA, WHO and FAO as follows: Nutrition knowledge, Nutrition flag, Obesity, Heart diseases, diabetes, hypertension and stroke, Nutrition labeling and Thai recommended daily intakes (Thai RDI) and Exercises & Behaviors management.

2. General information and health record questionnaire.

3. Behaviors questionnaire.

4. Healthcare knowledge testing.

The reliability test was carried out with a group of 30 Master's degree students in another center. The Alpha reliability coefficient was 0.87.

The Master's degree students, Faculty of Education from Kanchanaburi province were invited to participate in the healthcare learning program. The Facebook group was created under "Dr.Chusak's eLearning on Healthcare". Since they all were members of Facebook so they were invited to join the group. The study period was 8 weeks, which each week 1 lesson was delivered to the members of the group. The pretest was conducted at the beginning before learning start and the post test at the end of the study at week 8.

V. RESEARCH RESULTS

The research results on application of social network in healthcare study of the students were summarized as followed. General information, most of the students, 83.93% were female and 16.07% were male. Their marital status were married, single and others 42.86, 44.64 and 12.5% respectively. Their average age was 36 years, range 24-56 years.

1. Health information of the Master's degree students.

**TABLE I
HEALTH INFORMATION
OF THE STUDENTS**

Health	No. of students (N=56)	Percent %
Medical Check		
- Regular	42	75.00
- Not regular	14	25.00
Health Record of Students		
- Has NR diseases	3	5.36
- No NR diseases	53	94.64
Health Record of their Relatives		
- Has NR diseases	34	60.71
- No NR diseases	22	39.29
Smoking		
- Smokers	1	1.79
- Non smoker	55	98.21
Alcohol Drink		
- Drinkers (Social)	4	7.14
- Non drinker	52	92.86

From Table I, The students mostly 75% had their medical check regularly. There was only 5.36% were sick from the nutrition related diseases. However it was surprisingly found that most of them 60.71% had relatives who had being sick from the nutrition related diseases. The students mostly were non smoker and 7.14% were social drinkers.

2. Eating, monitoring and exercises behaviors of the students.

**TABLE II
EATING, MONITORING AND EXERCISES
BEHAVIORS RESULTS**

Item	No. of students (N=56)	Percent %
Eating Behaviors		
- nutrition principle	36	35.71
- Not follow	20	64.29
Nutrition Label Monitoring		
- Monitor	48	85.71
- Non monitor	8	14.29
Exercises Behaviors		
- Exercises	38	67.86
- Non exercises	18	32.14

From table II, Most of the students, 64.29% had good eating habits as they avoided sweet, oily and salty foods only 35.71% had bad habits. Moreover most of them 85.71% monitored important food ingredients by nutrition label reading, only 14.29% did not aware of. Lastly 67.86% of the students exercised regularly at least 3-4 times per week only 32.14% did not exercise.

3. Pretest and post test results of learning through social media on healthcare of the Master's degree students.

**TABLE III
PRETEST AND POSTTEST RESULTS
OF LEARNING THROUGH SOCIAL MEDIA
IN HEALTHCARE OF THE STUDENTS**

Test Result	Av.Score	σ	Percent%
Pretest	7.91	1.97	49.44
Posttest 9.96	1.17	62.28	

*N=56

From Table III, the results of learning through social media on healthcare of the Master's degree students found that pretest's average score was 7.91 ($\mu = 7.91$ $\sigma = 1.97$) equal to 49.44 and posttest's average score was 9.96 ($\mu = 9.96$ $\sigma = 1.17$) equal to 62.28%. The posttest's average score increased obviously higher than the mean score of 50%.

VI. SUMMARY AND DISCUSSION

The research results on application of social media in healthcare study of the students were summarized as follows.

Most of the students, 83.93% were female and 16.07% were male. Their marital status were married, single and others 42.86, 44.64 and 12.5% respectively. Their average age was 36 years, ranged 24-56 years.

The students mostly 75% had their medical check regularly. There was only 5.36% were sick from the nutrition related diseases. However it was surprisingly found that most of them 60.71% had relatives who had being sick from the nutrition related diseases including heart diseases, diabetes, hypertension and stroke. This showed that Nutrition related diseases were widely spread in the modern society. Therefore there was urgent need to provide prevention knowledge to the students, teachers and educational personnel at the early stage before they become high risk group in the future. The research also found that the students mostly were non smoker and 7.14% were social drinkers.

Most of the students, 64.29% had good eating habits as they avoided sweet, oily and salty foods only 35.71% had bad habits. Moreover most of them 85.71% monitored the important food ingredients by reading nutrition label only 14.29% did not aware of. Lastly 67.86% of the students exercised regularly at least 3-4 times per week only 32.14% did not exercised.

The results of learning through social media on healthcare of the students found that pretest's average score was 7.91 ($\mu = 7.91$ $\sigma = 1.97$) equal to 49.44% and post test's average score was 9.96 ($\mu = 9.96$ $\sigma = 1.17$) equal to 62.28%. The post test's average score increased obviously higher than the mean score of 50%. In comparison with the result in the development of eHealth learning model in prevention of nutrition related diseases for the senior executives in Thailand. (Narkpravit,

2010) the post test's research result was slightly lower. This may cause by the target group, the Master degree students was averaged younger than the senior executives group and the time devoted to the learning program was limited due to they were working as the teachers and studying for their Master degree.

The conclusion of the research on application of Facebook social network, on learning achievement in healthcare of the students was successful meeting the research objectives as the students gained more knowledge and also aware of their health by adopting good eating, monitoring and exercise behaviors.

VII. RECOMMENDATION

Recommendations for application of this research result.

1. Social network such as Facebook can be applied and utilized as useful tools to support learning and teaching efficiently.
2. Social network can also be applied as the efficient tools in non credit and life long learning.
3. Knowledge in healthcare and prevention of nutrition related diseases is one of the most concern particularly with students, teachers and personnel in education institutions.

Recommendations for further research.

1. Improve the LMS and lessons to make eLearning more interesting, more efficient and monitoring the learning process and evaluation.
2. Other social networks such as Google, Twitter, Apple can also be applied to support the education.

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(Arranged in the order of citation in the same fashion as the case of Footnotes.)

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