

THE EFFECTS OF WORK CHARACTERISTICS AND SELF-ESTEEM ON WORK BURNOUT FOR ENTRY—LEVEL EMPLOYEES IN HOTELS

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ABSTRACT

It is a well-known knowledge that hospitality industry is a labor-intensive industry, where all the activities and services provided depend mostly on the human elements. The natures of hospitality jobs require customer contact around the clock, long working hours, low pay and stress from management and low self-esteem. Such working conditions lead to stressful situation for employees and the work characteristics itself may affect and lead to the appearance of burnout phenomena. Work burnout is a common syndrome in hospitality and service sector employees, where they face emotional exhaustion, depersonalization of others, and a feeling of reduced personal accomplishment in work. The present research investigates the effects of work characteristics dimensions and self-esteem on entry-level employees' burnout by using a sample of 317 employees from 59 hotels located in Cairo and Alexandria cities.

Results of multiple regression analyses highlighted that work characteristics dimensions influence two dimensions of burnout, while all burnout dimensions affected by self-esteem. Results of simple regression analyses indicated that work characteristics affect greatly emotional exhaustions and personal accomplishment.

The emerged findings have many implications for designing interventions focused on reducing the causes of burnout phenomena and improving workers esteem and work characteristics among entry-level employees.

Keywords: Burnout , self-esteem, work characteristics

EMPOWERMENT PROGRAM ON PROMOTING PERCEIVED SELF-EFFICACY AMONG PREGNANT WOMEN FOR PREVENTING GESTATIONAL DIABETES MELLITUS

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ABSTRACT

This study aimed to investigate the effect of the empowerment program by teaching strategy on promoting perceived self-efficacy among pregnant women for preventing gestational diabetes mellitus. Sample was 60 pregnant women who attend the antenatal care services at Sunandha clinic, during November 21, 2015 to January 30, 2016. Questionnaire was the instrument of this study. The statistics to be used were percentage, average, standard deviation

Results showed that most of the pregnant women were 15-18 years old (25 persons, or 41.67 percent), followed by 19-22 years old (18 persons, or 30 percent), and the least were over 30 years old (1 person, or 1.67 percent). Most of the pregnant women were finished in Diploma/ Occupational Certificate (13 persons, or 21.67 percent), but the least were finished in primary school (1 person, or 1.67 percent). Most pregnant women did not engage in any occupation (25 persons, or 41.67 percent), followed by work as employee (23 persons, or 38.33 percent), and the least were self-business (1 person, or 1.67 percent)

This study organized into 2 phases, before and after educating the pregnant women on the knowledge of the nutrition. Results from the first phase showed that the majority (26 persons, or 43.33 percent) were answered 5 questions (out of 5 questions) correctly, followed by answered 6 questions correctly (12 persons, or 20 percent), and the least were answered 1 and 8 question correctly (2 person each, or 3.33 percent).

The second phase was took place after educating the pregnant women on the knowledge of the nutrition. Results revealed that 4 participants, or 6.67 percent, were answered all correctly (5/5 items), the majority (19 persons, or 31.67 percent) were answered 6 questions correctly, followed by answered 5 questions correctly (15 persons, or 25 percent), and the least were answered 3 questions correctly (1 person, or 1.67 percent).

Recommendation, there was no practical measurement on the activities for educating the pregnant women about the nutrition to prevent diabetes. Moreover, they also lack of monitoring of the actual nutrition. Therefore, the medical staff should be grouped the pregnant women, in the similar gestational age, for helping each other in annutrition, in order to help prevent diabetes.

Keywords–Pregnant women, gestational diabetes mellitus, nutrition

INTRODUCTION

Gestational diabetes mellitus (GDM) is a potentially serious condition that develops during pregnancy. GDM is high blood glucose (hyperglycemia) first occurring or first recognized during pregnancy. Between 1% and 14% of pregnant women develop GDM, with some at a higher risk than others (for example, women who are overweight or obese, older, of particular ethnicities, have had GDM previously, or have a family history of type II diabetes). GDM can cause significant health problems for mothers and babies. The babies may grow very large and, as a result, be injured at birth, or cause injury to mothers during birth. Women with GDM have an increased risk of

having an induced birth, of their babies being born by caesarean section, and of having a preterm birth (before 37 weeks of pregnancy). Additionally, there can be long-term health problems for mothers and babies, including an increased risk of type II diabetes. Some diets (for example, those with low fiber and high glycemic load) and physical inactivity, are potentially modifiable risk factors for GDM. There is evidence that lifestyle interventions in the general population (promoting diet and exercise changes) can prevent type II diabetes, and it has been suggested that these interventions may help prevent GDM in pregnancy.

Treatment of GDM with diet and insulin reduces health problems mother and child. Treatment of GDM is also accompanied by more inductions of labor. A repeat OGTT should be carried out 6 weeks after delivery, to confirm the diabetes has disappeared. Afterwards, regular screening for type 2 diabetes is advised. If a diabetic diet or G.I. Diet, exercise, and oral medication are inadequate to control glucose levels, insulin therapy may become necessary. The development of macrosomia can be evaluated during pregnancy by using sonography. Women who use insulin, with a history of stillbirth, or with hypertension are managed like women with overt diabetes.

Existing literary in Thailand apply empowerment program on promoting perceived self-efficacy for preventing diabetes mellitus in many population such as elderly or high risk population. But no evident related to use this program preventing GDM in pregnant women.

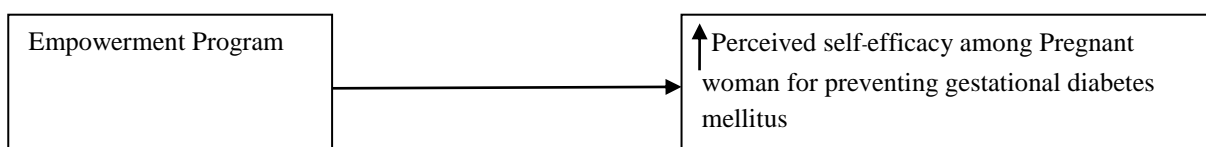
OBJECTIVES/ RESEARCH METHODOLOGY

This study aimed to determine the effect of the empowerment program on promoting perceived self-efficacy among pregnant women for preventing gestational diabetes mellitus.

SCOPE OF THE STUDY

This study comprised action research aimed at investigating the effect of the empowerment program on promoting perceived self-efficacy among pregnant women for preventing gestational diabetes mellitus. The 60 samples were select by Simple Random Sampling without Replacement technique from the eligible population in this study are pregnant women who's received services at the outpatient department of Sunandha Clinic, SuanSunandhaRajabhat University among 21st NOV 2016 to 30th JAN 2017.

CONCEPTUAL FRAMEWORK



EXPECTED BENEFITS

1. Pregnant women improve the knowledge regarding to preventing gestational diabetes mellitus
2. Investigate the correlation among 4 variables are age, educational level, carrier and income

RESULTS

Data collecting by using questionnaire and individual interview to the participant who's received services from 21st NOV 2016 to 30th JAN 2017. The data collecting instruments were develop by researcher and the participant returned 100% of questionnaire. After collecting data, the researcher prepares to complete

the process by using SPSS software. The researcher collected and analyzed data by using a computer program as follows:

Table1.
The social characteristics of pregnant women (n=60)

social characteristics	Mean	Max	Min	SD
Age	19.23	32	14	3.25
Monthly Income	11935.80	18,000	9,000	945
Educational Level	-	Certificate/ Diploma	Lower than primary school	-
Career status	-	No career	Government official	-

For this study revealed the average age of the pregnant women to be 19.23 years with high school educational levels at a rate of 63.33% . The average monthly incomes was 11,935.80 baht/month. As for careerstatus in the population, most pregnant women were no career (41.67%)

Table2
Scores of knowledge regarding preventing gestational diabetes mellitus (N=60)

Score	Mean	Max	Min	SD
Pretest	5.83	8	0	1.25
Posttest	6.33	9	2	1.05
Pretest Compared with posttest	3.33	5	0	1.65

From table 2 propose the highest and lowest scores of pretest was 8and 0 respectively (43.33% and 0%) with mean score of pretest was 5.83. (SD=1.25)For the posttest the highest and lowest scores of pretest was 9 and 2 respectively with mean scores 6.33 (SD=1.05). The mean score of improvement score between pretest and posttest was 3.33 (SD=1.65)

Table 3
Percentage of correlation between social characteristics data and scores of knowledge regarding preventing gestational diabetes mellitus (More than 4 of 5 scores)

Social characteristics	Mean	Max	Min	SD
Age	19.23	32	14	3.25
Monthly Income	11935.80	18,000	9,000	945
Educational Level	-	Certificate/ Diploma	Lower than primary school	-
Career status	-	No career	Government official	-

Table 4
Percentage of correlation between age and posttest scores of knowledge regarding preventing gestational diabetes mellitus (More than 4 of 5 scores)

Age	N	Percentage
< 15	1	6.67

15-18	11	36.67
19-22	7	23.33
23-26	3	10
27-30	7	23.33
>30	1	6.67

Mean= 18.83 Max = 30 Min= 14 SD= 3.25

The table4 present the age among 15-18 years got highest posttest scores of knowledge regarding preventing gestational diabetes mellitus (More than 4 of 5 scores), and the range of age with lowest posttest scores were <15 and > 30 years. Average age of posttest scores of knowledge regarding preventing gestational diabetes mellitus (More than 4 of 5 scores) was 18.83 years.

Table 5
Percentage of correlation between education level and posttest scores of knowledge regarding preventing gestational diabetes mellitus (More than 4 of 5 scores)

Education Level	N	Percentage
Lower than primary school	0	0
Secondary school	10	33.33
Certificate/Diploma	13	43.33
Bachelor Degree or over	7	23.33

The sample who was graduate in certificate/diploma level got the highest posttest scores of knowledge regarding preventing gestational diabetes mellitus (More than 4 of 5 scores)

Table 6
Percentage of correlation between career status and posttest scores of knowledge regarding preventing gestational diabetes mellitus: dietary control (More than 4 of 5 scores)

Career	N	Percentage
No career	10	33.33
Student	11	36.67
Employee	8	26.67
Own business	1	3.33

Table 7
Percentage of correlation between monthly income and posttest scores of knowledge regarding preventing gestational diabetes mellitus: dietary control (More than 4 of 5 scores)

Income	N	Percentage
No income	18	60
<10,000	2	6.67
10,000-11,000	5	16.67
11,001-12,000	2	6.67
12,001-13,000	1	3.33
13,001-14,000	1	3.33
14,001-15,000	1	3.33
>15,000	0	0

DISCUSSION

Empowerment program on promoting perceived self-efficacy among pregnant women for preventing gestational diabetes mellitus was studied among 21st NOV 2016 to 30th JAN 2017 at Sunandha Clinic, Sunandha Rajabhat. Aimed to determine the effect of the empowerment program on promoting perceived self-efficacy among pregnant women for preventing gestational diabetes mellitus.

Hypothesis of this study is after received the empowerment program, the pregnant women will improve perceived self-efficacy for preventing gestational diabetes mellitus.

The 60 samples were select by Simple Random Sampling without Replacement technique from the eligible population. This study revealed the average age of the pregnant women to be 19.23 years with high school educational levels at a rate of 63.33%. The average monthly incomes was 11,935.80 baht/month. As for career status in the population, most pregnant women were no career (41.67%)

The highest and lowest scores of pretest was 8 and 0 respectively (43.33% and 0%) with mean score of pretest was 5.83. (SD=1.25). For the posttest the highest and lowest scores of pretest was 9 and 2 respectively with mean scores 6.33 (SD=1.05). The mean score of improvement score between pretest and posttest was 3.33 (SD=1.65)

The age among 15-18 years got highest posttest scores of knowledge regarding preventing gestational diabetes mellitus (More than 4 of 5 scores), and the range of age with lowest posttest scores were <15 and > 30 years. Average age of posttest scores of knowledge regarding preventing gestational diabetes mellitus (More than 4 of 5 scores) was 18.83 years.

The sample who was graduate in certificate/diploma level got the highest posttest scores of knowledge regarding preventing gestational diabetes mellitus (More than 4 of 5 scores). The correlation between career status and posttest scores of knowledge regarding preventing gestational diabetes mellitus: dietary control (More than 4 of 5 scores) was the sample who were student got the highest scores. And the researcher found amazing result regarding correlation between monthly income and posttest scores was the sample who have no monthly income have positive relationship with highest posttest scores of knowledge regarding preventing gestational diabetes mellitus

The highest posttest scores was 9 and the lowest was 0. Mean score of posttest was 6.33(SD1.05). The study presents the difference scores of pretest and posttest. The effective of empowerment program on promoting perceived self-efficacy among pregnant women for preventing gestational diabetes mellitus relevant to the learning theory

Learning theories are conceptual frameworks describing how information is absorbed, processed, and retained during learning. Cognitive, emotional, and environmental influences, as well as prior experience, all play a part in how understanding, or a world view, is acquired or changed and knowledge and skills retained.

Behaviorists look at learning as an aspect of conditioning and will advocate a system of rewards and targets in education. Educators who embrace cognitive theory believe that the definition of learning as a change in behavior is too narrow and prefer to study the learner rather than their environment and in particular the complexities of human memory. Those who advocate constructivism believe that a learner's ability to learn relies to a large extent on what he already knows and understands, and the acquisition of knowledge should be an individually tailored process of construction. Transformative learning theory focuses upon the often-necessary change that is required in a learner's preconceptions and world view.

The age between 15-18 years is late adolescent and in the transition period to adult. The existing literary support that the age effect to the perceived and learning process. For late adolescent in general, this changes their ability to think about themselves, others and the world around them. This is a gradual process that spans adolescence and young adulthood. For example, early in the process youth are limited in their ability to hold more than one point of view understanding something from one perspective but not another. While young adolescents experience rapid and profound physical changes triggered by hormones acting on different parts

of their body, physical and sexual body changes are primarily complete. While most physical development is complete, young men may continue to physical grow until age 21. Greater acceptance of physical appearance

The education level effect on perceive self-efficacy as well, for those participant who graduate certificate/ diploma, in this level the student need to pass the process of critical thinking and analyze the information to perform the appropriate behavior.

The correlation between career and posttest score, student got the highest score due to the student still in the process of learning, therefore they can manage their thinking process better than any other career.

And for the factors of monthly income is relevant to the factor of career status since the students got the highest posttest scores so this group of sample can pay more attention time to the program and cause of good learning process.

LIMITATION OF STUDY

The study need to improve in research methodology by follow up the participant with screening weekly weight and blood sugar level of pregnant women. And also follow up the behavior regarding dietary control by manual record for improve the quality of study.

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REFERENCE

1. Cunningham, F. G., Levono, K. J., Bloom, S. L., Hauth, J. C., Gilstrap, L. C., & Wenstrom, K. D. (2010). *William Obstetrics* (23rd ed.). New York: McGraw-Hill
2. Kanjana Srisawat, & Orapin Sikaow. Management for Gestational Diabetes Mellitus. *Journal of the Royal Thai Army Nurses*. Volume 15 No.2 (May - Aug) 2014.
3. Piyanun Limruangrong, Nittaya Sinsuksai, Ameporn Ratinthorn, Dittakarn Boriboonthirunsarn. 2011. Relationship among Selected Factors, Exercises, and Two-hour Postprandial Blood Glucose Levels in Pregnant Women with Gestational Diabetes Mellitus. *Journal of Nursing Science*. Vol 29 Suppl 2 July-September 2011.
4. Symonds, M. E. (2011). *Maternal - fetal nutrition during pregnancy and lactation*. United Kingdom: Cambridge University Press.

THE STUDY OF SEXUAL HEALTH BEHAVIORS IN ADOLESCENT

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ABSTRACT

Healthy sexual behaviors in adolescent can protect unwanted pregnancy and sexually transmitted infection. The purpose of this survey research was to study the prevention of sexual risk behaviors. Samples were 361 of undergraduate students in Bangkok metropolitan, randomly selected by simple sampling technique. The questionnaire were used for collecting data and subsequently analyzed by descriptive statistics. Data were collected by using questionnaires from January, 2014 to May, 2014 and then analyzed by using descriptive statistics. The results revealed that most participants were female (69.53 %) and most of them stayed with their parents (32.96%) and lived in their house or condominium, some of them lived with their friend (20.24%) and stayed alone (15.62%). Most of their age group was 21-22 years and they like heterosexual (83.38%). With regarding to the prevention of sexual risk behaviors which were most of them used condom and contraceptive (84.13%) and never had a sexually transmitted infection (89.55%). Most of them (60.22%) did not agree to have sex during they were a student. At merely 16.26 % they agreed to talk about health sexual with their parents. Of 66.48 percent had moderate level of knowledge about sexual risk behaviors. In conclusion, the majority of adolescent in this study had moderate level of knowledge to prevent sex risk behaviors. However, their attitudes towards sexual risk behaviors were relatively high. This data suggests that the school and university should provide sex education suitable for their students. To prevent sexual risk behaviors, parents should talk about sex healthy behaviors to their teens with more understanding and empathy. Further study is needed the sexual health program for sexual health education and sexual health promotion.

Keywords--adolescent, sexual risk prevention behaviors

INTRODUCTION

Adolescence is an age which have the change in both body and mind, including sex change. Most common teens are starting to pay attention to the opposite sex to have sex with an curious to try. An emotional, intense and may also have an incorrect understanding of sexuality. In addition to the current environment and situations that provoked induction teen sexually inappropriate and may entail having sex and getting pregnant without intending to cause problems, that led to risk sexual behaviors and becoming pregnant unintentionally. This is the precarious and dangerous to teens, especially sexual behavior is a key component of the teen if teen sexual behavior that is inappropriate until the coupling can cause problems mounting AIDS and sexually. [1] Adolescents who have sex early are less likely to use contraception, putting them at greater risk of pregnancy and STDs. [2] [3]

Now social conditions in Thailand, the family are less to close each other because of lifestyle and economic conditions and technological advancements. Children can access media content about inappropriate sexual behavior more easily. From the report of the Bureau of Epidemiology, Department of

Disease Control Year 2007 to 2011 showed that Thailand had sex for the first time early in the year 2011 children both male and female average age 12 years, and the less than 50 percentage of using condom when having sex for the first time, and about 50 percent unprotected, especially among female students. This may be due to lack of knowledge about safe sex and access to sources of knowledge about reproductive health are also less. The problem of premature pregnancy. From the Center for Information Technology and Communications Ministry of Social Development and Human Security to compare the proportion of birth mothers aged 20 years and over with a mother under 20 years of age in 2554 found that in 2554 a mother under the age of 20 years, 114 001 people, representing. 14.32 per cent of all maternal age. A mother aged 15-19 years, 110 325 people aged mother and children under 15 years 3,676 people have my youngest 8 years old in 2554 mothers younger than 15 years of birth, birth weight less than 18.8 percent. This is because the pregnant mother's childhood, the body is not ready to have children. The newborn is likely to be deformed. There are underweight And developments Children generally higher than The mother, aged between 15 -19 years of birth, birth weight less than 12.7 percent, and also found that children often do not receive appropriate care, in both body and mind. And the abandonment of children and youth development report for the year 2011 of the Bureau of Social Learning and Quality found that young children are orphaned, abandoned to 88,730 people, mainly homeless. The cause of the mother is in preschool and mother who can not dribble. In addition, the teens chose abortion. Surveillance data from the storage tank in the year 2011 by the health facilities both in and outside the Ministry of Public Health found that those who practiced abortion, 56 per cent are under 25 years of age group 15-19 years is the most hundreds. 30.4 percent education and 45 percent have no income. It also found that abortions among under 19-year-old than a 60 percent no contraception which is why the decision to have an abortion.

The study of risk sexual behavior in adolescent will be used as a guide to educate sex education that teens need to know accurately. The results of this study to be adopted to solve the problem of teen pregnancy is not ready to break the cycle of child abandonment, abortion and sexually transmitted infection prevention, including the importance of AIDS. This impact of such an approach to solving the problem of teen pregnancy is not ready to break the cycle of child abandonment and abortion.

METHODOLOGY

1. Objective

To study the risk of sexual health in adolescent student.

2. Study design

This study design was the pilot survey research health risk behavior in adolescent.

3. The Samples

From a sampling of students at University collected data from 361 questionnaires. Student population is in the university in Bangkok Thailand of 29,702 people. The samples were students by Daniel sample size was 361 people, the number of samples by simple sampling and distribution of all of all ages and both male and female.

4. Procedures

In this study, using the time to study and collected between the months of January 2014 to May 2014 total duration of five months by using questionnaires from January, 2014 to May, 2014.

5. Measurement

The measurement were the sexual health behaviors and in adolescent student and the risk health behaviors and the opinion about sex health and the protection from risk behaviors. The questionnaire were used for collecting data.

DATA ANALYSIS

This research were analyzed by descriptive statistics.

RESULTS

The results revealed that most participants were female (69.53 %) and most of them stayed with their parents (32.96%) and lived in their house or condominium, some of them lived with their friend (20.24%) and stayed alone (15.62%). Most of their age group was 21-22 years and they like heterosexual (83.38%). With regarding to the prevention of sexual risk behaviors which were most of them used condom and contraceptive (84.13%) and never had a sexually transmitted infection (89.55%). Most of them (60.22%) did not agree to have sex during they were a student. At merely 16.26 % they agreed to talk about health sexual with their parents. Of 66.48 percent had moderate level of knowledge about sexual risk behaviors.

Table 1
Showed the opinion about Sex Health

Items	Level of Opinion					
	Aagree		Disagree		uncertain	
	No	%	No	%	No	%
1. Talking about sex with their parents is a shame.	60	16.62	254	70.36	47	13.02
2. Having sex in adolescent is normal	90	24.86	218	60.22	54	14.92
3. Women having sex with many men are common	25	6.93	310	85.87	26	7.20
4. Abortion is a safe solution to the problem of teen pregnancy is not available.	70	19.34	254	70.17	38	10.49
5. Birth control is the responsibility of women only	32	8.86	303	83.94	26	7.20
6. Do you agree with teenage girls who carry condoms and birth control pills	256	70.91	73	20.22	32	8.87
7. Frequently changing sexual partners was common	33	9.14	290	80.33	38	10.53
8. Using condoms make sexual pleasure is reduced	55	15.24	153	42.38	153	42.38
9. Congress does not have a single chance of pregnancy	26	7.20	259	71.75	76	21.05
10. Women refuse to have sex men are dissatisfied	36	9.97	251	69.53	74	20.50
11. Congress gave the teenager the respect and esteem of less.	136	37.67	146	40.44	79	21.89
12. Switching partners is common to occur in today's society	49	13.61	246	68.33	65	18.06

Table I shows the comment about sexual health, found that the sample had the correct sequence is the No. 3, women who have sex with men, many of the female's. Normal the sample of 310 people disagree with 85.87 percent, followed by No. 5, contraception is the responsibility of women only. The samples did not agree with the number 303, representing 83.94 per cent and No.7 to change partners frequently is common. The sample of 290 people disagree with 80.33 percent.

DISCUSSION & CONCLUSION

In conclusion, the majority of adolescent in this study had moderate level of knowledge to prevent sex risk behaviors. However, their attitudes towards sexual risk behaviors were relatively high. This data suggests that the school and university should provide sex education suitable for their students. From the 7 point of important data of the sample: 1) I've had a couple of 268 people or 74.24 percent, 2) Congress has 123 members representing 45.56 per cent and had sex. First, when the average age was 17 years, 3) in the third round last month. Congress, 88 percent of 69.84, 4) Congress last heterosexual 107 percent 85.60, 5) Congress last couple most 112 percent 85.60, 6.) in the past three months. Use contraception or protection with used condoms, the largest number, 43 percent, 51.19, 7) use contraception the last time, how many condoms as 67 people, representing 51.19 per cent. Although the adolescents who have ever had sex has declined since the early 1990s, [4] but adolescents who have sex early are less likely to use contraception, putting them at greater risk of pregnancy and STDs [2] and not at all adolescents who had active sexually was high-risk sexual behaviors. Thirty-nine percent of females and 33 percent of males who have ever had sex have only had one partner. [5] The risk behaviors that from adolescents who have sex early are less likely to use contraception, putting them at greater risk of pregnancy and STDs. Now the impact from new media play an important role in adolescents' dating and sexual relationships. More than one-third of adolescents say they have sent or posted messages by e-mail. [6] The lack of self esteem feel that they are one I want others to do teen makes imitation gender roles and sexual behavior extensively. Sometimes a lack of self-esteem and lead to various problems. Failure to seize the moral Teens can develop ethics Recognize the good The evil of their own conscience By learning of values. Attitude and good relations within the family. A person with ethics will be affectionate to others. Can exist in society and to live happily. Additional suggestion for sex health care center the students about the reproductive health and sexual health clinic in high school and university[7] because of many adolescents had risk of sexual behavior some of them were engaging in oral sex with about 51 percent of 15- to 24-year-olds had oral sex before they first had sexual intercourse.[10,11] For controlling and prevention the STD that must be develop a general local education package and use of sexual health services and adapt to sexual guidance regarding sexual health promotion..[8,9,10] The furthermore to reduce sexual risk behaviors and related health problems among youth must be promote the moral couple with sex education.

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REFERENCES

- [1] <https://www.gotoknow.org/posts/426438> , Access December,19, 2016.
- [2] Collins, W. A., Welsh, D. P., & Furman, W. C. (2009). Adolescent romantic relationships. *Annual Review of Psychology*, 60, 631-652.
- [3] Child Trends. (2010). *Child Trends databank: Dating*. Retrieved from <http://www.childtrendsdatabank.org/alphalist?q=node/151>
- [4] Centers for Disease Control and Prevention (CDC). *1991-2009 high school Youth Risk Behavior Survey data*. Retrieved from <http://www.cdc.gov/mmwr/pdf/ss/ss5905.pdf>
- [5] Abma, J. C., Martinez, G. M., & Copen, C. E. (2010). Teenagers in the United States: Sexual activity, contraceptive use, and childbearing, National Survey of Family Growth 2006-2008. National Center for Health Statistics. *Vital and Health Statistics*, 23(30). Retrieved from http://www.cdc.gov/nchs/data/series/sr_23/sr23_030.pdf
- [6] The National Campaign to Prevent Teen and Unplanned Pregnancy. (2008). *Sex and tech: Results from a survey of teens and young adults*. Washington, DC: The National Campaign to Prevent Teen and Unplanned Pregnancy. Retrieved from <https://thenationalcampaign.org/resource/sex-and-tech>
- [7] Udomporn, Yingpaiboonsuk. & Premwadee, Karuhadej. (2011). **Sexual Orientation of College Students in Rattanakosin Area**. Suan Sunandha Rajabhat University, Bangkok, Thailand.

- [8] Center for disease control and Prevention. (2016). Sexual Risk Behaviors: HIV, STD, & Teen Pregnancy Prevention. Retrieved from <https://www.cdc.gov/healthyyouth/sexualbehaviors/>
- [9] **Adolescent Sexual Behavior: Demographics**, Positive Trends and Areas in Need of Improvement Retrieved from <http://www.advocatesforyouth.org/publications/publications-a-z/413-adolescent-sexual-behavior-i-demographics>
- [10] **WHO: Sexual and reproductive health** Retrieved from <http://www.who.int/reproductivehealth/topics/adolescence/en/>
- [11] Barber, B., & Eccles, J. (2003). The joy of romance: Healthy adolescent relationships as an educational agenda. In P. Florsheim (Ed.), *Adolescent romantic relations and sexual behavior: Theory, research, and practical implications*. Mahwah, NJ: Lawrence Erlbaum Associates.

EDUCATION PROGRAM ON PROMOTING PERCEIVED SELF-EFFICACY IN PREGNANCY WOMEN FOR DIABETES MELLITUS PREVENTION

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ABSTRACT

This study aimed to investigate the effect of educates the pregnant women to prevent diabetes. Sample was 60 pregnant women who attend the antenatal care services at Sunandha clinic, during November 21, 2015 to January 30, 2016. Questionnaire was the instrument of this study. Statistics to be used were percentage, average, standard deviation.

Results showed that most of the pregnant women were 15-18 years old (25 persons, or 41.67 percent), followed by 19-22 years old (18 persons, or 30 percent), and the least were over 30 years old (1 person, or 1.67 percent). Most of the pregnant women were finished in High school/ Occupational Certificate (83 persons, or 63.33 percent), but the least were finished in primary school (1 person, or 1.67 percent). Most pregnant women did not engage in any occupation (25 persons, or 41.67 percent), followed by work as employee (23 persons, or 38.33 percent), and the least were self-business (1 person, or 1.67 percent)

This study organized into 2 phases, before and after educating the pregnant women on the knowledge of the exercise. Results from the first phase showed that the majority (26 persons, or 43.33 percent) were answered 5 questions (out of 9 questions) correctly, followed by answered 6 questions correctly (12 persons, or 20 percent), and the least were answered 1 and 8 question correctly (2 person each, or 3.33 percent).

The second phase was took place after educating the pregnant women on the knowledge of the exercise. Results revealed that 4 participants, or 6.67 percent, were answered all correctly (9 items), the majority (19 persons, or 31.67 percent) were answered 6 questions correctly, followed by answered 5 questions correctly (15 persons, or 25 percent), and the least were answered 3 questions correctly (1 person, or 1.67 percent).

Recommendation there was no practical measurement on the activities for educating the pregnant women about the exercise to prevent diabetes. Moreover, they also lack of monitoring of the actual exercise. Therefore, the medical staff should be grouped the pregnant women, in the similar gestational age, for helping each other in an exercise, in order to help prevent diabetes.

Keywords-Pregnant women with diabetes, Exercise

INTRODUCTION

When Pregnant, women's body will change the anatomy, physiology, and biochemistry, to support the growth and development of infants. Such changes have been taken place since fertilization until birth. Pregnant women need to take care themselves to support change and prevent complications, which possibly occurs during pregnancy, particularly diabetes during pregnancy (gestational diabetes mellitus [GDM]). This disease came from the abnormal metabolism, first detect during pregnancy, which always happen all around the world (Cunningham, Levono, Bloom, Hauth, Gilstrap, & Wenstrom, 2010). In the United State, there were pregnant women with GDM about 7 percent, or more than 200,000 cases per year (American Diabetes

Association [ADA], 2004). Meanwhile, this incident in Thailand was 3.7-7.0 percent (Piyapun Limruangrong, et.al., 2011). Moreover, the research found that the more elderly pregnancy the more risk of GDM.

GDM possibly affects health of pregnant women and fetus. Pregnant women with GDM faces some more changes in the body and mentality than a normal pregnancy such as high blood pressure, increased cesarean rates, easily to infection, and uncontrollable blood sugar level (hypoglycemia or hyperglycemia). They also face some complications in infants such as giant baby, increased morbidity rate, and perinatal mortality. Moreover, research showed that women with diabetes before pregnancy would result in more severe than those with diabetes after pregnancy. This may cause in the creation of organs of the fetus abnormalities and miscarriages. In case of giant baby issue, it may cause the baby's birth to the hard shoulder and the near-term birth abortion. Therefore, pregnant women with GDM would suggest to take more various tests than normal pregnancy such as the Ultrasonography, the health of the fetus at every antenatal care, Oral Glucose Tolerance Test (OGTT), and so on. According to severity of the disease, pregnant women with GDM would suggest to modify their activities to control and prevent the complications of themselves and their infant (Cunningham et al., 2010). In case of women with diabetes before pregnancy, if they were poorly controlled diabetes, then, it may harm both the babies and pregnant women. In case of babies, it may effect on congenital abnormalities such as no kidney, heart disease, cerebral palsy, no limbs, and cause of miscarriages in the end. In case of the pregnant women, it may cause of preterm about eight times that of people without diabetes. This incident may come from the toxicity in pregnant women and other risks which may cause the baby died in the womb or died shortly after birth from respiratory disorders.

The exercise plays the key role of DM treatment. It can activate insulin sensitivity and glycogen synthesis, which drops the blood sugar level. Moreover, the exercise also helps to reduce resistance to insulin which could reduce demand for insulin to control sugar. The appropriate exercise was part of care course for women with GDM. The patients, who exercise regularly, reported low blood sugar levels while fasting and after eating. They also reduced to use of insulin for the treatment. Moreover, the level of Hemoglobin A1C (HbA1c) also decreased. Thus, the research was interested in educating pregnant women on the knowledge of exercise to prevent diabetes which could reduce the risk of complications of pregnancy and fetal consequences.

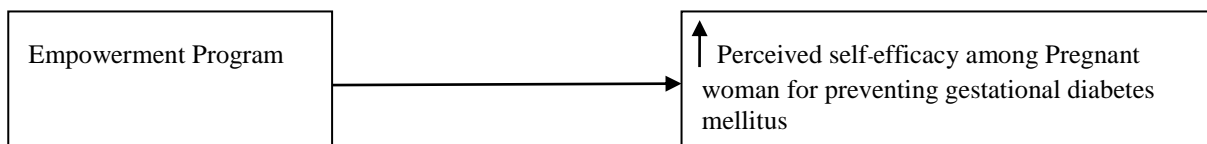
RESEARCH OBJECTIVES

To investigate the effect of education on self-care of pregnant women to prevent diabetes.

SCOPE OF RESEARCH

Sample was the pregnant women who attend the antenatal care service at the Sunandha clinic during November 21, 2015 to January 30, 2016.

CONCEPTUAL FRAMEWORK



EXPECTED BENEFITS

1. Pregnant women improve the knowledge regarding to preventing gestational diabetes mellitus
2. Investigate the correlation among 4 variables are age, educational level, carrier and income

RESULTS

Data collecting by using questionnaire and individual interview to the participant who's received services from 21st NOV 2016 to 30th JAN 2017. The data collecting instruments were develop by researcher and the participant returned 100% of questionnaire. After collecting data, the researcher prepares to complete the process by using SPSS software. The researcher collected and analyzed data by using a computer program as follows:

RESEARCH RESULTS

Table 1
shows the basic information of pregnant women.

Item	Frequency (n=60)	Percent
Age		
< 15	2	3.33
15-18	25	41.67
19-22	18	30
23-26	5	8.33
27-30	9	15
>30	1	1.67
Education		
Under/primary school	1	1.67
High school/vocational certificate	38	63.33
Diploma/high vocational certificate	13	21.67
Undergraduate/graduate school	8	13.33
Occupation		
Not work	25	41.67
Student	11	18.33
Employee	23	38.33
Civil servant/state enterprise	0	0
Self-business	1	1.67
Revenue (baht)		
No income	36	60
<10,000	3	5
10,000-11,000	10	16.67
11,001-12,000	2	3.33
12,001-13,000	2	3.33
13,001-14,000	1	1.67
14,001-15,000	5	8.33
>15,000	1	1.67

Table 1 showed that there was 25 pregnant women who aged 15-18 years old (41.67 per cent), followed by 19-22 years old (18 persons, or 30 percent), over 30 years old (1 person, or 1.67 percent), and under 15 years old (2 persons, or 3.33 percent).

Most of the pregnant women were finished in High school/ Occupational certificate (38 persons, or 63.33 percent), followed by Diploma/high vocational certificate (13 persons, or 21.67 percent), and the least were finished in primary school (1 person, or 1.67 percent).

Most pregnant women did not engage in any occupation (25 persons, or 41.67 percent), followed by work as employee (23 persons, or 38.33 percent), and the least were self-business (1 person, or 1.67 percent)

Most pregnant women were no income (36 people, or 60 percent), followed by revenues. 10000-11000 baht (10 persons, or 16.67 percent), 14001-15000 baht (5 persons, or 8.33 percent), and the least were earning more than 15,000 baht and 13,001-14,000 baht (1 person, or 1.67 percent each)

Table 2
Answering about the exercise of pregnant women, before and after educating.

Number of right answer	Before		After	
	Frequency (n=60)	Percent	Frequency (n=60)	Percent
1	0	0	0	0
2	2	3.33	0	0
3	5	8.33	1	1.67
4	8	13.33	4	6.67
5	26	43.33	15	25
6	12	20	19	31.67
7	5	8.33	11	18.33
8	2	3.33	6	10
9	0	0	4	6.67
Total	60	100	60	100

The table 2 showed that before educating the pregnant women on the knowledge of the exercise, the majority (26 persons, or 43.33 percent) were answered 5 questions (out of 9 questions) correctly, followed by answered 6 questions correctly (12 persons, or 20 percent), and the least were answered 1 and 8 question correctly (2 person each, or 3.33 percent).

After educating the pregnant women on the knowledge of the exercise, the majority (19 persons, or 31.67 percent) were answered 6 questions correctly, followed by answered 5 questions correctly (15 persons, or 25 percent), 11 participants (or 18.33 percent) were answered 7 questions correctly, 4 participants (or 6.67 percent) were answered all correctly (9 items), and the least were answered 3 questions correctly (1 person, or 1.67 percent).

DISCUSSIONS

The results from this research revealed that after educating the pregnant women on the knowledge of the exercise, most pregnant women have much more knowledge which consistent with the study of Kanjana Srisawat & Orapin Sikaow (2014). It showed that the surveillance of diabetes during pregnancy at risk and knowledge of how to look after themselves and their children, in order to prevent or delay type 2 diabetes, could reduce the risk of disease. It also reduces the cost of care for diabetes in pregnant women. The pregnant women also combine their new knowledge from training course with the existing knowledge, which could help them for more perceive, understanding, and recognize the process.

SUGGESTION

There was no practical measurement on the activities for educating the pregnant women about the exercise to prevent diabetes. Moreover, they also lack of monitoring of the actual exercise. Therefore, the medical staff should be grouped the pregnant women, in the similar gestational age, for helping each other in an exercise, in order to help prevent diabetes.

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REFERENCE

1. Cunningham, F. G., Levono, K. J., Bloom, S. L., Hauth, J. C., Gilstrap, L. C., & Wenstrom, K. D. (2010). *William Obstetrics (23rd ed.)*. New York: McGraw-Hill
2. Kanjana Srisawat, & Orapin Sikaow. Management for Gestational Diabetes Mellitus. *Journal of the Royal Thai Army Nurses*. Volume 15 No.2 (May - Aug) 2014.
3. Piyanun Limruangrong, Nittaya Sinsuksai, Ameporn Ratinthorn, Dittakarn Boriboonhirunsarn. 2011. Relationship among Selected Factors, Exercises, and Two-hour Postprandial Blood Glucose Levels in Pregnant Women with Gestational Diabetes Mellitus. *Journal of Nursing Science*. Vol 29 Suppl 2 July-September 2011.
4. Symonds, M. E. (2011). *Maternal - fetal nutrition during pregnancy and lactation*. United Kingdom: Cambridge University Press.

THE EFFECTS OF THAI MIND-BODY EXERCISE “RUSIE DUTTON” ON BODY WEIGHT AND BLOOD LIPID LEVEL IN MENOPAUSAL WOMEN

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ABSTRACT

To examine the effects of Thai mind-body exercise “Rusie Dutton” on body weight and blood lipid level of menopausal women. Menopausal women (aged 45-59) were recruited and randomly allocated to 2 groups. Rusie Dutton group (n=24) practiced Rusie Dutton conducted by Wat Pho Thai Traditional Massage School for 12 weeks. The control group (n=26) was assigned to a waiting list and received no intervention. Body weight, BMI, blood lipid including cholesterol, triglyceride, high-density lipoprotein (HDL), and low-density lipoprotein (LDL) were assessed at baseline and the end. A paired-sample t-test and independent-sample t-test were used for statistical analysis.

Significant improvement was found in all variables except for HDL within group ($p < .05$) in Rusie Dutton group, and no significant difference between groups was found ($p < .05$) in all variables except triglyceride. Therefore, Thai mind-body exercise “Rusie Dutton” can promote health related BW, BMI and blood lipid level for menopausal women but inconclusive. Further research is warranted to confirm these preliminary findings and encourage implementation in other group of people.

Keywords—rusie dutton, mind-body exercise, menopause,

INTRODUCTION

Menopause represents a period of accelerated physiological, psychological, and neuroendocrine aging in women. The constellation of adverse changes that occurs in response to the altered hormonal environment characterizing menopause, especially the sharp decline in estrogens[1-3]. This period most of women not only have menopause symptoms but also appear to increase risk of diseases such as cardiovascular disease (CVD)[4-7], hypertension[8-10], hyperlipidemia and obesity[5,8-10,11,12].

In Thailand, there are 6.6 million women that is in menopause (aged 45-59 years) or 10.6% of the Thai population[13]. They have risk factors associated CVD, the most important of which is inappropriate life styles. Therefore, behavioral intervention for health promotion should be needed.

Exercise is considered one of the most important mean to slow and prevent hypertension, hyperlipidemia and obesity[5,8-10,11,12]. The recent studies indicated that mind-body exercises such as Yoga, Tai Chi and Qgong have been effective in hyperlipidemia and obesity [14-16]. Rusie Dutton, Thai wisdom exercise is another mind-body exercise with a set of slowly and smoothly connected movements of all body part, paced respiration, diaphragmatic breathing and mind fullness respiration with breathing techniques. Therefore Rusie Dutton might be an effective intervention for menopausal women, reducing body weight and blood lipid level.

Rusie Dutton initially developed for exercise by Wat Phra Chetuphon Vimolmangklaram (Wat Pho) and Thai Ministry of Public Health. It is well-known to Thai people for more than 200 years and widely spread in Asian. There are some reports have shown that the practice of Rusie Dutton can increase

flexibility[17], decrease stress[18-19], muscle pain[19] and menopause symptoms[20]. As a result, this study was to examine the effect of Thai mind-body exercise “Rusie Dutton” in the prevention risk of CVD through body weight and blood lipid level in a group of menopausal women in Thailand.

METHODOLOGY

1. Study design

The study used a quasi-experimental randomized control group design with pre and post tests over 13 weeks and took place between June and October 2013.

2. Participants

Sixty female volunteers (aged 45-59 years) in a Thai community were recruited and screened via the Physical Activity Readiness Questionnaire(PAR-Q)[21] and basic physical examination which confirmed that taking part in Rusie Dutton practice was not contra indicated for any of the women. The screening assessment reported 54 women met the inclusion criteria that included the following : BMI < 30.0 kg/m², absent of anti hyperlipidemic drugs, no spine or knee joint problems and no limited physical activity. They were randomized into an intervention group who participated in 13 weeks Rusie Dutton and a controlled group did not received any intervention but on a wait list.

Prior to participation in any of the study procedures, 27 participants from each group read and signed an informed consent form that approved by the Chulalongkorn University Research Ethics Committee, then all participants completed a baseline assessment to record body weight (BW.), body mass index (BMI), and blood lipid including cholesterol, triglyceride, high-density lipoprotein (HDL), and low- density lipoprotein (LDL). The participants were excluded if they attended the Rusie Dutton class less than 13 times (80% of 16 times), been unwilling to attend the group session or had a change of medication during the period of intervention.

The experimental group was requested to regularly attend a 13 week Rusie Dutton class of 16 postures conducted by Wat Po Thai Traditional Massage School and approved by three sport science experts (IOC=0.92), while the control group was advised to maintain their normal habit, and not to begin any health promotion program during the study period and was offered the opportunity to take part in the Rusie Dutton practice after the post-test assessment was completed. Both groups received a Menopausal Health promotion handbook that consisted of a dietary and exercise guidelines for menopausal women.

3. Procedures

Thirteen weekly Rusie Dutton class were supervised by the researcher, a certified Rusie Dutton trainer from the Wat Po Thai Traditional Massage School in Bangkok. The practice procedure was the following :

Week 1 : The class began with a 10 minutes for Rusie Dutton exercise explanation; 10 minutes for training in diaphragmatic breathing and mind fullness with breathing techniques (inhalation for four count, retention of breath for three and exhalation for six); 60 minutes for muscle stretching of the neck, shoulders, back and legs and 10 minutes breathing techniques. The participants were requested to practice these techniques and stretching the body parts at home every day anytime they could.

Weeks 2-13 : Ninety minute Rusie Dutton class at the center of community performed 3 times in the second week, twice in class and once at home in the third week, once a week in class and at least 2 days/wk. at home by following positions on a poster or a DVD recommending Rusie Dutton for 20-30 min. each day over ten weeks. In addition, a daily record of Rusie Dutton practice was kept by participants.

Rusie Dutton class were offered on a weekly basis, on Friday from 7.30-9.00 a.m. in a center of community, consisted of a question-and-answer period about their Rusie Dutton practice and health problems (20 min.), followed by breathing and warm up technique (20 min.), muscle stretching (5 min), practice of the postures of Rusie Dutton (40 min.) and deep breathing and stretching (5 min.). The class session began with a simple postures and followed by more difficult ones until all 16 postures were covered. Participants were encouraged to extend, stretch or twist the limbs and body part as much as they could but no pain. During the movements, participants were instructed to focus on mindfulness meditation and breathing technique by inhalation while moving, retention of breathe while posing and exhalation while returning to the initial position. Finally, data on all variables were collected at the end of the experiment.

4. Measurement

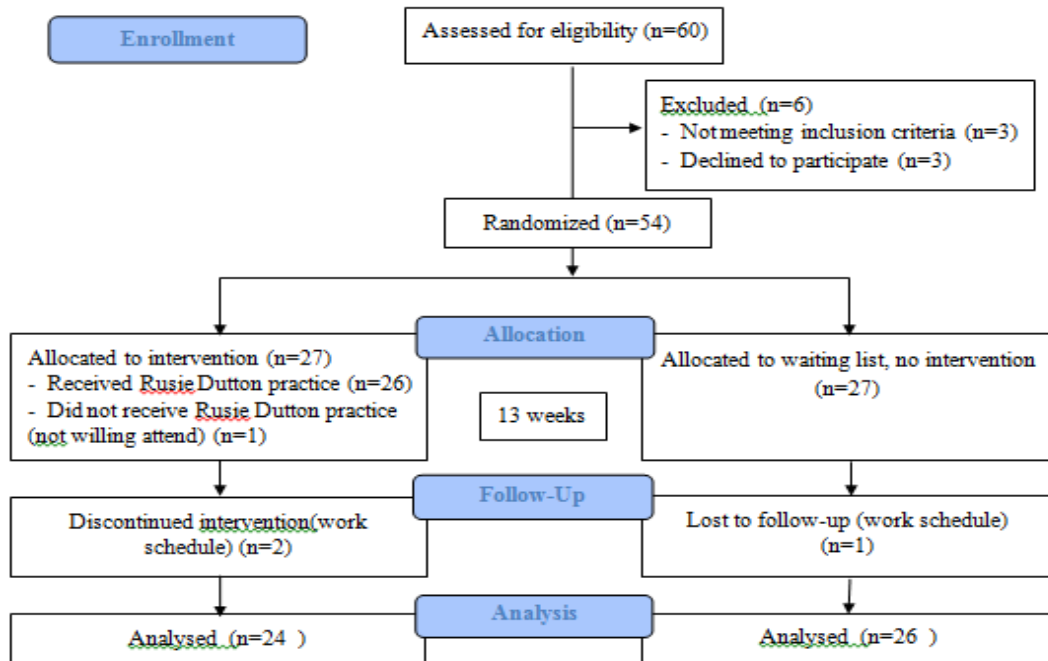
4.1 BW & BMI : Participants were weighed without shoes on a single digital scale which was calibrated according to normal specifications. The BMI was calculated by the standard formula: $BMI = BW(kg.) / height(m^2)$.

4.2 Blood lipid : Participants were required to fast overnight. Fasting venous blood samples were then collected and analyzed for biomedical indicators including cholesterol, triglyceride, HDL, and LDL.

DATA ANALYSIS

Statistical analyses were carried out with the SPSS Version 20.0 program. Characteristics of both experimental and control group are given as mean \pm SD, frequency and percentages. The homogeneity of the values of the variables measured between the experimental and control group at baseline were tested using a two tailed independent sample t- test. At posttest the difference of means were compared using a one tailed paired t-test within groups and a one tailed independent sample t- test for between groups comparison. For all analyses, a p-value of < 0.05 was considered statistically significant.

Figure 1
Menopausal women RCT profile.



RESULTS

Fig. 1 shows the trial profile. Twenty four of 27 participants (88.9%) in the experimental group and 26 of 27(96.3%) in the control group met eligibility criteria and completed all assessments. The mean age of participants in the experimental group was 52.9 ± 4.3 years and that of the control group was 50.7 ± 3.6 years. The analysis shows no significant differences in any variables were detected between the two groups at the beginning of the study (Tables 1).

Table 1
Health assessment values of participants at baseline.

Outcome variable	Exp. group(n=24)	Cont. group(n=26)	t	P
BW(kg.)	60.8 \pm 9.6	57.9 \pm 9.1	1.11	.273
BMI(kg/m ²)	24.8 \pm 3.5	23.8 \pm 3.0	1.15	.257
cholesterol	218.6 \pm 38.8	223.4 \pm 33.7	-.47	.644

triglyceride	116.9 ±43.3	111.2 ± 60.3	.39	.698
HDL	63.8 ± 14.9	63.2 ± 13.3	.16	.874
LDL	132.3 ± 36.5	138.1 ± 33.8	-.58	.562

Data are mean ±SD.

After 13 weeks, a significant decrease in BW, BMI, cholesterol, triglyceride, and LDL. were observed only in the experiment group, but no significant differences were noted in the control group. There was a significant difference between groups in terms of a decrease in triglyceride in the experimental group compared to the control group but no significant differences in BW, BMI, cholesterol, HDL, and LDL.(Tables 2).

Table 2
Health assessment values of participant at base line and post test.

Variable/ group	Baseline	12 weeks	t ^w		Difference (pre- post)	t ^b	P (one-tail)
BW(kg.)							
Exp.gr	60.8 ± 9.6	59.5 ± 9.5	4.45	.000	1.3 ± 1.5	-.58	.282
Cont.gr.	57.9 ± 9.1	57.9 ± 8.9	.30	.385	0.1 ± 1.5		
BMI (kg/m ²)							
Exp.gr	24.8 ± 3.5	24.3 ± 3.4	4.51	.000	0.6 ± 0.6	-.52	.304
Cont.gr.	23.8 ± 3.0	23.8 ± 2.9	.33	.371	.04 ± .57		
Cholesterol							
Exp.gr	218.6 ± 38.8	204.9 ± 36.1	2.76	.005	13.6 ± 24.2	-1.68	.050
Cont.gr.	223.4 ± 33.7	220.7 ± 29.4	1.31	.101	2.73 ± 10.6		
Triglyceride							
Exp.gr	116.9 ± 43.3	89.2 ± 37.3	3.25	.002	27.8 ± 41.9	-1.74	.045
Cont.gr.	111.2 ± 60.3	113.4 ± 59.5	-1.49	.075	-2.2 ± 7.6		
HDL							
Exp.gr	63.8 ± 14.9	65.0 ± 15.8	-.721	.239	-1.1 ± 7.6	.71	.241
Cont.gr.	63.2 ± 13.3	61.9 ± 14.3	1.63	.058	1.3 ± 3.9		
LDL							
Exp.gr	132.3 ± 36.5	123.5 ± 34.9	1.99	.029	8.8 ± 21.8	-1.52	.068
Cont.gr.	138.1 ± 33.8	137.9 ± 32.3	.04	.482	0.2 ± 17.9		

Experimental group(n=24), Control group (n=26)

Data are mean ± SD

tw : paired t-test within a group; tb : independent t-test between groups.

DISCUSSION

This is the first study to examine the effects of Thai mind-body exercise Rusie Dutton on the health of menopausal women. The findings of this study indicate a significant improvement in health in the experimental group as shown in a decreased body weight, body mass index and blood lipid level including cholesterol, triglyceride, and LDL. after the period of Rusie Dutton practice. These finding are consistent with a previous study which found that mind-body exercise that incorporated slowly paced-gentle movements, controlled breathing and meditation improved hyperlipidemia and obesity [14-16]. In addition, Rusie Dutton practice no limited in area and place due to all in standing position, no limited in busy people because they can find appropriated posture, apply in sitting position and take less than 10 minutes during working hours to practice this exercise for releasing muscle fatigue and stress.

CONCLUSION

In light of the aforementioned results, the researcher would like to recommend that Rusie Dutton should be promoted as an alternative exercise for menopausal women. Moreover, the practice should be further studied with other groups of people to confirm these preliminary findings and discover if it might provide the same health benefits as Yoga, Tai Chi, or Qigong exercises.

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REFERENCES

- [1] Palacios S, Kenemans P. Menopause, hormones and sex: the role of the doctor. *Maturitas*. 2009;63(2):105-6.
- [2] Al-Azzawi F, Palacios S. Hormonal changes during menopause. *Maturitas*. 2009;63(2):135-7.
- [3] Bachmann G, Doty NJ. Menopause. *Principles of Gender-Specific Medicine* 2010. p. 449-55.
- [4] Pitha J, Auzký O, Kovář J, Lejskova M, Adámková S, Babková E, et al. Changes in cardiovascular risk profile in women after menopause (Prague Pre and Post Menopausal Female study). *Cor et Vasa*. 2014.
- [5] Ebrahimpour P, Fakhrzadeh H, Heshmat R, Ghodsi M, Bandarian F, Larijani B. Metabolic syndrome and menopause: A population-based study. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*. 2010;4(1):5-9.
- [6] Agrinier N, Cournot M, Dallongeville J, Arveiler D, Ducimetiere P, Ruidavets JB, et al. Menopause and modifiable coronary heart disease risk factors: a population based study. *Maturitas*. 2010;65(3):237-43.
- [7] Derby CA. Cardiovascular Pathophysiology. *MENOPAUSE: BIOLOGY AND PATHOBIOLOGY*: Academic Press.; 2000. p. 229-43.
- [8] Cifkova R, Pitha J, Lejskova M, Lanska V, Zecova S. Blood pressure around the menopause: a population study. *Journal of hypertension*. 2008;26(10):1976-82.
- [9] Pramparo P, Schargrodsky H, Boissonnet C, Champagne BM, Silva H, Acevedo M, et al. Cardiovascular risk factors for heart disease and stroke in women by age and time since menopause, in seven Latin American cities: The CARMELA study. *CVD Prevention and Control*. 2008;3(4):181-9.
- [10] Kim HM, Park J, Ryu SY, Kim J. The Effect of Menopause on the Metabolic Syndrome Among Korean Women. *Diabetes Care*. 2007;30(3):701-6.
- [11] He L, Tang X, Li N, Wu YQ, Wang JW, Li JR, et al. Menopause with cardiovascular disease and its risk factors among rural Chinese women in Beijing: a population-based study. *Maturitas*. 2012;72(2):132-8.
- [12] Feng Y, Hong H, Wilker E, Li Z, Zhang W, Jin D, et al. Effects of age at menarche, reproductive years, and menopause on metabolic risk factors for cardiovascular diseases. *Atherosclerosis* 2008;196: 590–7.
- [13] Health BoPaSMoP. Health Status Information 2012. Available from: <http://bps.ops.moph.go.th/webenglish/Information.htm>.
- [14] Field T. Tai Chi research review. *Complementary therapies in clinical practice*. 2011;17(3):141-6.
- [15] Field T. Yoga clinical research review. *Complementary therapies in clinical practice*. 2011;17(1):1-8.
- [16] Chotisiri, L., Vorasiri, P., Yamarat, K. The Effects of Integrated Laughter Mild Physical Activity and Dietary Self-control on Blood Pressure and Serum Lipid Profile Among Women with Hypertension in Suburb Community Pathum Thani Thailand. *Proceeding of 6th IASTEM International Conference, Berlin, Germany, 2015*.
- [17] Peepathum P. The Effects of Applied Ascetics Exercise on Flexibility and Health: Srinakharinwirot 2005.
- [18] Buranruk O. Effects of Thai Yoga on Metabolism, Cardiovascular and Autonomic Nervous Systems in Diabetes.: Khon Kaen; 2009.

- [19] Damrongsak C. The Development of Thai Style Physical Exercise "Ruesidatton" of the People in Thawung Subdistrict Administrative Organization Area, Thawung District, Lop Buri Province: Thepsatri Rajabhat; 2006.
- [20] Ngowsiri, K., Tanmahasamut, P., Sukonthasab, S. (2014). Rusie Dutton traditional Thai exercise promotes health related physical fitness and quality of life in menopausal women. *Complementary Therapies in Clinical Practice* 20(3) : 164-171.
- [21] Medicine ACoS. Preparticipation Health Screening and Risk Stratification. *ACSM's Guidelines for Exercise Testing and Prescription*. 7 ed2006. p. 26.

EDUCATION PROGRAM OUTCOMES IN PREGNANCY PREVENTION OF SEX-RISK FEMALE ADOLESCENTS: A CASE STUDY OF STUDENTS IN SAMUT-SONGKRAM PROVINCE, THAILAND

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ABSTRACT

This research is a one-group measured before and after experiment research. The objective is to study education program outcomes in pregnancy prevention of sex-risk female Adolescents : A case study of students in Samut-Songkram Province, Thailand. The samples were sex-risk female early-secondary school students at the fourth largest school in Samut-Songkram Province. Thirty female students were purposively selected by social dimension screening and confirmed by their classroom teachers. The research tools were reproduction health education program, pregnancy, pregnancy prevention by contraception methods, sex counseling by online network telephone and test for pregnancy prevention by contraception. The research was conducted from October 2015 to August 2016. Data were analyzed by percentage, average, standard deviation and paired t-test

The result showed:

1. There were 30 sex-risk female adolescents who were purposively selected by social dimension screening and confirmed by their classroom teachers from total of 166 male and female students or 6 times more than expected sample size.

2. The sex-risk female adolescents had low level of knowledge before participating the educational program for pregnancy prevention by contraception. Their knowledge were increased to medium level after participating the educational program with statistical significance at $p < .01$.

3. Outcome of numbers of pregnancy in the sex-risk female adolescents after participating the educational program for 10 months were none.

4. There were nine sex-risk female adolescents who used online network telephone for sex counseling and two of them consulted for emergency contraception after having sex relation.

Keywords-- Sex-Risk Female Adolescents, Pregnancy Prevention

INTRODUCTION

At present the birth rate of 10-14 years old female population increases from 0.6 per 1000 of 10-14 years old female population in 1992 to 1.7 in 2013. The trend increases since 2009. The birth rate of 15-19 years old female population increases over the Department of Health target of 50 per 1000 of 15-19 years old female population in 2008 to 51.2 in 2013. The 10-16 years old females are students in early secondary school. Their pregnancy will affect quality of the working age group population, public health, society and economic development of the country. Therefore all parties involved should accelerate prevention and solving problem of teenage pregnancy. (Statistics on Adolescent Births, Thailand, 2013, p 20)

Researches during 2007-2013 showed that there were public and private sector cooperation of this matter including descriptive, qualitative and experimental researches. For examples: the Bureau of Reproductive Health, Department of Health, Ministry of Public Health by Yupa Punkham, et al (2009) studied health promotion and prevention of health risk behavior and health problem. The Ministry of Social Development and Human Security funded Siriporn Jirawat, et al (2011) of Khonkaen University to study prevention and solving problem of teenage pregnancy. Sripen Tantiwes (2013) conducted the research of teenage pregnancy situation in Thailand for the project of technological and health policy evaluation of Department of Health, Ministry of Public Health. Experimental researches and projects included Petchrada Petcharat, et al (2012) who were funded by Sukhothai Thammatirat University to conduct the project of premature sex relation prevention for youth leaders. Anchalee Phumjantuek (2554, 55-65) studied the effectiveness of health education program for life skill education and social support to prevent premature sex relation in grade 6 students. Natesai Panyachoon, et al (2009,32-41) studied life skill promoting program to prevent sex relation in early secondary school female students by two-group measured before and after semi-experimental research. Kalasin hospital (2009) conducted life skill enhancement project for youth. However, teenage pregnancy rate still increases which reflects that there were no effective projects to delay teenage sex and pregnancy. Most researches were the experiments to enhance skill for female adolescents to avoid sex relation. But in reality of present Thai society, there are many factors of teenage pregnancy, such as adolescents tend to become adulthood faster which result in opposite sex interest and natural sex desire sooner. Current social context which leads them to access various media easily can sexually stimulate them to have sex relation. Female adolescents who are in early secondary school are the sex risk group. They go out at night with boyfriends and may see porn movies as couple or group. The researchers believe that life skill education to prevent premature sex relation may be ineffective. We should educate teenagers to prevent pregnancy by contraception. They will learn or know the counseling resources when they intentionally or unintentionally had sex relation. Teenagers like counseling by online telephone because they are not embarrassed to tell the truth. (Kalasin hospital, 2009) In Samut Songkram Province, the birth rate of 15-19 years old female population was 15.9 per 1000 of 15-19 years old female population (Bureau of Reproductive Health, 2015, 15) which was the fifth highest rate in Thailand. The researchers are interested in the outcomes of education program in pregnancy prevention by contraception and sex counseling by online network telephone to numbers of pregnancy in sex-risk female adolescents of the fourth largest school in Samut Songkram Province.

OBJECTIVES

1. To study and compare knowledge of pregnancy prevention by contraception in sex-risk female adolescents of early secondary school students at the fourth largest school in Samut Songkram Province before and after participating education program in pregnancy prevention by contraception and sex counseling by online network telephone.

2. To follow the numbers of pregnancy in sex-risk female adolescents of early secondary school students at the fourth largest school in Samut Songkram Province after participating the program for 10 months.

HYPOTHESIS

The sex-risk female adolescents of early secondary school students at the fourth largest school in Samut Songkram Province, after participating the education program in pregnancy prevention by contraception and sex counseling by online network telephone, have better knowledge in pregnancy prevention than before participating the program.

METHODOLOGY

Step 1 Selection of female students of early secondary school students who were in sex risk group at the fourth largest school in Samut Songkram Province by social dimension screening.

Research methodology of step 1

1. Study sex risk behavior data from documents and researches concerning sex risk behavior to make conclusion and construct the risk behaviors in social dimension aspect for 6 items and another 8 general items.

2. Distribute the constructed social dimension questionnaire to 166 male and female early secondary school students from 15 classrooms of the fourth largest school in Samut Songkram Province and let each student identify friends who had the behaviors of the 14 items.

3. Analyze data to identify the sex risk students by content analysis. All name lists of friend-identified female students were enumerated for frequency. The sex risk students included the students who were identified at least 1 item for sex risk behavior from 2 or more friends. The name lists were confirmed by classroom teachers. Male students who were identified to have many girlfriends were assigned to participate in the program to create ethical atmosphere but were not statistically analyzed. The classroom teachers were asked to protect the students' rights and keep the name lists confidential.

The screening result: there were 30 female students who were in sex risk group and 10 male sex risk group who participated in the program but were not the samples.

Step 2 Implementation of the program

The samples were 30 female students who were in sex risk group selected in step 1.

Research tools of step 2 consisted of experiment tools and data collection tools.

1. Experiment tools were education program of pregnancy prevention by contraception methods which consisted of contents in reproductive health, pregnancy, pregnancy prevention by contraception methods: condom, safety period, contraceptive pills, implants, emergency contraceptive pills, intrauterine device and contraceptive patch.

2. Data collection tools were questionnaires to evaluate knowledge of pregnancy prevention by contraception. They were constructed by the researchers and consisted of:

Part 1 - general data of samples, fathers and mothers of the sex-risk female adolescents.

Part 2 - questionnaires to evaluate knowledge of pregnancy prevention by contraception and comprised of 20 true-false items.

Knowledge scores of 20 were categorized into very good level for 16.00-20.00, good level for 14.00-15.99, average level for 12.00-13.99, low level for 10.00-11.99 and very low level for less than 10.00.

The questionnaires to evaluate knowledge of pregnancy prevention by contraception were examined for content validity. The reliability of the questionnaires was analyzed by Kuder Richardson KR-20 and the yielded reliability = 0.88.

Steps of research method and data collection

1. Official letters from Suan Sunandha Rajabhat University were sent to school director and classroom teachers to ask for permission to conduct the research, data collection and appointment. We asked the classroom teachers to inform name lists of real female and male student who were in the sex risk group to enter the program.

2. The samples did pre-test for knowledge of pregnancy prevention before starting the program.

3. The education program was started by lecture in knowledge of reproductive health, pregnancy, sexually transmitted diseases, pregnancy prevention by contraception methods, advantages and disadvantages of each method. There were demonstration and student participation by presentation and

reflection for facts, advantages, disadvantages and necessity of contraception. The education media were lecture sheets, video and mannequin. Total lecture time was 6 hours. The group of online network telephone was introduced and appointed for counseling time between 6.00-22.00. Then the samples did post-test for knowledge of pregnancy prevention by contraception methods.

4. After participating the program for 10 months, the researchers followed numbers of pregnancy in the sex-risk female adolescents by contacting the classroom teachers for information of pregnancy in female students.

Data analysis

The general data of samples were analyzed by percentage. The data of pre-test and post-test knowledge in pregnancy prevention by contraception were analyzed by mean, standard deviation (SD) and paired t-test.

RESULTS

1. There were 30 sex-risk female adolescents who were screened by social dimension questionnaires and confirmed by classroom teachers from 166 male and female early secondary school students (grade 7-9). It was 6 times more than expected numbers which showed that the social dimension questionnaires could screen sex-risk group more than the target. This was in compliance with the reproductive health data in 2011 (Bureau of Reproductive Health, 2013) which suggested that, in order to avoid sex relation, adolescents should avoid risk situations as the followings: 1) avoid being together in private places such as home, classroom or friends' home to do homework, tutorial, go out or watch video since there was 100% chance of sex relation. 2) avoid going together to secluded location 3) avoid watching sexual arousal such as porn video that contained group sex or strange posture, romantic movie, porn magazine, porn cartoon or love story 4) avoid going out at night 5) avoid narcotic drugs and alcohol 6) should not dress to stimulate sex emotion such as tight blouse, singlet or miniskirt 7) avoid being touched, hugging and kissing. The social dimension questionnaires contained all risk behaviors that could screen sex-risk group. The method to have each student identify friends who had risk behaviors and the students identified by 2 or more friends should be truly in the sex risk group. The high numbers of sex-risk female adolescents were in compliance with the increase rate of sex relation in teenagers from 15.5% in 2010 to 18.9% in 2014. (Bureau of Reproductive Health, 2015)

2. The sex-risk female adolescents of early secondary school students at the fourth largest school in Samut Songkram Province had knowledge of pregnancy prevention by contraception at low level (mean = 12.30, SD = 1.89) from 20 scores before participating the program. They scored after participating the program at average level (mean = 14.03, SD = 1.51) with statistically significant increase ($p < .01$).

3. Result of follow up the numbers of pregnancy in sex-risk female adolescents after participating the program for 10 months showed no pregnancy.

DISCUSSION

The education program was effective as the objectives and hypothesis since the sex-risk female adolescents had low level of knowledge in pregnancy prevention by contraception before participating the program. It was in compliance with Suwchai Intrapasert who described that most adolescents lacked sex education knowledge, no teaching from public sectors and did not know correct contraceptive methods. Kritsada Sa-nguanpong, et al found that female late secondary school students had knowledge of contraception at low level (62.1%), of contraceptive pills at average level (49.1%). It was also in compliance with Pourpen Krinara, Methinee Ketvatimart and Muntana Maneecho (2013) which found that early adolescents had low level of knowledge in pregnancy prevention before training and their knowledge increased to average level after training with statistical significance. ($p < .001$) In Thailand, sex education teaching in secondary school is taught by school teachers and emphasizes sex relation avoidance and skill for

denial. The teachers may not have enough knowledge as health team and may not demonstrate the real pictures. Our program described pregnancy and pregnancy prevention by contraception methods with demonstration and student participation to present and reflect facts, advantages, disadvantages and necessity of contraception. These knowledge could be useful in real life for pregnancy prevention. The sex risk group who were identified by friends were interested in the education program and sex counseling with health team of researchers via online network telephone. It was in compliance with Suwachai Intraprasert who found that online clinic was the effective sex counseling because the adolescents did not attend medical service for fear and embarrassment. Siriporn Jirawat et al (2011) and the study of Kalasin Hospital (Kalasin Hospital, 2009) also found that most adolescents talked with friends who did not have correct sex knowledge when they had sex problems. Therefore they preferred telephone counseling with health team without being present. They were not embarrassed to tell the truth. The researchers, as the nursing instructors in Obstetrics and Gynecology, were able to give correct counseling for contraception. There were nine sex-risk female adolescents who used online network telephone for sex counseling and two of them consulted for emergency contraception after having sex relation.

CONCLUSION

The program was effective since the sex-risk female adolescents increased knowledge of pregnancy prevention by contraception after education program and there was no pregnancy in the sex risk group after participating the program for 10 months.

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REFERENCES

1. Aunchalee Phumjuntuk and Rujira Duangsong. (2011).The Effectiveness of Health Education Program by the Application of Life Skills Education and Social Support for Sexual Prevention Before Premature Age Among the Sixth Grade Students in Nakhon Ratchasima Province. *KKU Res J (GS)*, 11 (4)October -December .
2. Bureau of Reproductive Health. (2013). *Guideline for Teens and Young Adults: Prevention of Unplanned Pregnancy*. Bangkok: Agriculture Cooperatives of Thailand Printing
3. Bureau of Reproductive Health. (2015). *Reproductive Health Situation of Teens and Young Adults in 2015*. Department of Health, Ministry of Public Health. (Retrieve Jan , 25,2016 from http://rh.anamai.moph.go.th/ewt_dl_link.php?nid=86)
4. Bureau of the National Economic and Social Development Board (2013). *Teenage mothers: challenge Teenage Pregnancy*. Bangkok: Advance Printing Co Ltd (UNFPA 2012).
5. Kalasin Hospital (2009). *Research and Development Health System*. *Journal*, 2(2),105-108 Kritsada Sa-nguanpong, Parichat Jenjareonpun and Orawan Moontripukdi. Attitude and Sexual behavior Among the High School Students in Amphur Muang, Phitsanulok(Retrieve Jan 2, 2015 from www.med.nu.ac.th/chem/.../v5-3/.../19)
6. Natesai Panyachoon, et al. (2009). Life Skills Promoting Program to Prevent Sexual Behavior Among Female Junior High School Students. *Journal of Health Education*. 32(111), 33-40.

7. Petchrada Petcharat, et al (2012). Academic Service for Society Project Report: Training Youth Leaders to Prevent premature Pregnancy Project. Academic Development Center, Sukhothai Thammathirat University, 55-65. Retrieve Jan , 25, 2016 from <http://www.stou.ac.th/Bureau/s/rdec/petch/main/PhetburiQA/organization%20chart.pdf>
8. Pourpen Krinara, Methinee Ketvatimart and Muntana Maneechot. (2013). The Effects of Nursing Student-lead Unplanned Pregnancy Prevention Program on Knowledge, Attitude and Intention to Prevent Unplanned Pregnancy Among Early. The Journal of Boromarajonani College of Nursing, Nakhonratchasima 2 (July-December), 20-31.
9. Siriporn Jirawat, et al. (2010) Prevention of and Dealing with Teenage Pregnancy. WHO Research and Training Coordinating Center on Gender and Women Health, Khonkaen University, pp 1-10. Statistics on Adolescent Births, Thailand 2013, pp 20.
10. Suwachai Intraprasert. Reproductive Health in Teenagers: Prevention and Treatment. Department of Obstetrics and Gynecology, Faculty of Medicine Ramathibodi Hospital.
11. Yupa Punkham, et al. (2012). The youth health promoting behaviors and the health risk behavior of youths. Bureau of Reproductive Health, Department of Health. Ministry of Public Health.

STUDY OF SEX HEALTH KNOWLEDGE AND DEMAND OF SEX HEALTH CARE IN UNDERGRADUATE STUDENTS

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ABSTRACT

The purpose of this study are gaining more knowledge about sex health and demand of sex health care. The result was analyzing based on questionnaire toward the knowledge of topic. The volunteer, total 316 people, were chose from both male and female students from one university in Thailand. From the result shown that most of the volunteers, 334 people (92.52%), originally from other provinces or rural area. It was female 251 people or 69.53%, whereas most of them are around 21-22 years old. From here, under the topic of sexual preference, 83.3% are heterosexual, 9.42% are bisexual. While the knowledge about sex health 240 people (66.48%) are in moderate level, 94 people (26.04%) are below average, and 27 people (7.48%) are above average. As for the need of sex health care service, 356 people (98.61%) chose to has it in university; whether in nurse room, student council, accordingly. The most wanted activity is before-hand pregnancy consulting service, as much as 221 people or 61.22%. Next 177 people (49.30%) seek for medical check up and treatment of STD. Family planning also in the top list, chose by 171 people (43.47%). Moreover, clinic should have computer or internet service, magazine about this topic, and relax area. The performable service care should be through social network; i.e. Facebook. More than 60% suggested clinic should open daily and be able to consult by phone 24/7. Or else, should held some activities to gain more knowledge about sex health, maybe do some presentation. From the questionnaire, can be conclude that undergraduate students needed a knowledge of sex health via SNS. Also, should be able to consult 24/7 by phone. In addition, co-space should provides internet and computer, or some magazine that context related to this topic. This research and result will help us improve our service to meet the limit of demand.

Keywords--Sex Health, STD, Family Planning

INTRODUCTION

The problem of teenage pregnancy is paid attention to by many countries and organizations. The study found that the teenage pregnancy in the United States did not decline in the year 2007, in Thailand, mothers aged 16-20 years is the highest in Asia, and second rank in the world after South Africa, the overall adolescent birth rate is 70 per 100,000 women (about 140 cases/day). [1,11,12,13] Teenage pregnancy has many causes, including a lack of comprehensive sex education, an inappropriate sexual health, young people engaging in sex without understanding the consequences, teenagers' lack of knowledge or access to

reproductive health services, as well as authorities' lack of awareness about their need for knowledge, services and social support. The consequent of teenage pregnancy, opportunities are lost for the teenager. a number of pregnant teenagers drop out of school, while some quit their job, [13] 30 percent of teen pregnancy will end up with abortion, 10 percent of teen leave their child at the hospital.

When the teen has a sexual activity, there could have many different purposes such as for pleasure or to show reciprocity, seeking sex experience, to show themselves as adults, to reward or punish themselves, to escape from loneliness or away from the pressures [6]. The effects of premature sex could causing many problems as follows: 1) unwanted pregnancy the issue of pregnancy or pregnancy undesirable 2) A sexually transmitted disease and AIDS 3) unsafe abortion which lead to the common complications such as bleeding, infection, disability and infant mortality, and so on. 4) adolescent parents face increased barriers to educational achievement - which ultimately impede professional success - and social stigma in their lives 5) some adolescent mothers end up separated from their partner and left to face problems alone, which can lead to emotional insecurity, stress and depression, lack of skills in the role of parenthood [1,4,5]

Preventing and solving sexual problems seem to be the appropriate knowledge of sex education and information in the schools and in the media. Additionally, the ease to access to family planning services and youth development programs could improve the life options of impoverished teens. According to the National Reproductive Health No. 1 (2553 -2557 BE), the government has announced a policy and strategic development that focuses on adolescent and youth health behavior to protect themselves from unwanted pregnancy, sexually transmitted diseases, AIDS and abortion. By the reason, this research was interested in the Sexual Health Education and sexual health care needs of college students for the information to be provided to health care, reproductive health and sexual health in higher education institutions. Contribution to this research would provide the awareness for the students to take care of themselves and to advise the others. It also provides the policy recommendations on the development of reproductive health and sexual health services for the university.

METHODOLOGY

1. Study design

This research was the survey research.

2. Participants

Population in this research was 29,702 students at SuanSunandhaRajabhat University.

Sample was selected from the simple sampling technique. There were 361 participants, both male and female from all faculty in the university. All participants willing to take part of the research.

3. Procedures

Questionnaire has been used to collect data which consists of three parts:

Part 1 Demographic information: hometown, sex, age, sexual orientation, marital status, expense, and residence

Part 2 Knowledge about sexual health care, including perineum care, prevent pregnancy and contraception. questions were multiple choice. The respondents could choose three options: yes, no, and not know.

Part 3 The needs of reproductive health services and sexual health. This part was fill in question.

4. Measurement

Questionnaire has been used to collect data which consists of three parts:

Part 1 Demographic information: hometown, sex, age, sexual orientation, marital status, expense, and residence

Part 2 Knowledge about sexual health care, including perineum care, prevent pregnancy and contraception, questions were multiple choice. The respondents could choose three options: yes, no, and not know.

Part 3 The needs of reproductive health services and sexual health. This part was fill in question.

DATA ANALYSIS

1. Personal Information: frequency, percentage, average, and standard deviation.
2. Information about the sexual health knowledge: descriptive statistics such as frequency and percentage
3. Information about reproductive health services and sexual health: content analysis

RESULTS

Table 1
Overview of the sample demographic

Demographic	Choices	Frequency (n = 361)	Percent
1. Home town	Bangkok	27	7.48
	Other Province	334	92.52
2. Sex	Male	108	29.92
	Female	251	69.53
	N/A	2	0.55
3. Age	Less than 18 years	62	17.17
	19 years- 20 years	126	34.90
	21 years- 22 years	162	44.88
4. Sexual orientation	Hetero sexual	301	83.38
	Monosexual	26	7.20
	bisexual	34	9.42
5. Status	Single	346	95.57
	Live together (with marriage certificate)	0	0
	Live together (without marriage certificate)	7	1.94
	Other (not mention)	7	1.94
6. Year of Education	Year 1	131	36.29
	Year 2	139	38.50
	Year 3	56	15.51
	Year 4	34	9.42
	Year 5	1	0.28
7. Expense average/month	below 5000 baht	110	36.11
	5001.0 - 6000.0 baht	81	21.87
	6001.0 - 7000.0 baht	20	5.40
	7001.0 - 9000.0 baht	7	1.89

	8001.0 – 9000.0 baht	22	5.94
	9.000.1 – 10000.0 baht	34	9.18
	over 10000.0 baht	87	24.36
8. Residence	Parent	119	32.96
	Either father or Mother	23	5.06
	Relatives	39	8.58
	Friends or acquaintances	92	20.24
	Girl/boyfriend or Lover	7	1.54
	Alone	71	15.62
	Other eg. brother/sister	10	2.20

Table 1 showed the overview of the sample demographic that there were 27 Bangkokians (7.48 percent), and 334 people came from other province (92.52 percent). When considering on gender, there were 108 males (29.92 per cent), 251 females (69.53 percent), and 2 people (0.55 percent) did not answer. Most samples were between 21 - 22 years old (162 people, or 44.88 percent), followed by 19 years - 20 years old (126 people, or 34.90 percent). The samples also reported that they were heterosexual 301 people (83.38 percent), and bisexual 34 people (9.42 percent). Table also showed that there were single 346 people (95.57 percent), living together without marriage certificate 7 people (1.94 percent), and not mention 7 people (1.94 percent). The most samples were the second year students (139 people, or 38.50 percent), followed by the first year student (131 people, or 36.29 percent). The students in this study received money from parent or other dependent, the most was below 5,000 baht/ month (110 people, or 36.11 percent), followed by over 10,000 baht/ month (87 people, or 24.36 percent). Students also reported that they live mostly with parents (119 people, or 32.96 percent), followed by friends or acquaintances (92 people, or 20.24 percent). Finally, students reported that they mostly live at home/ condominium (169 people, or 37.18 percent), followed by private residences (151 people, or 33.22 percent).

Table 2
Knowledge about sexual health

Level	Frequency	Percent
	(N = 361)	
Good (10 - 12 points)	27	7.48
Moderate (6 - 9 points)	240	66.48
Below moderate (5-0 points)	94	26.04
Average = 6.54		
SD = 2.275		

Table 2 shows the majority of the students with knowledge about sexual health at moderate level (6-9 points), 240 people, or 66.48 percent, followed by below at moderate level (5-0 points), 94 people, or 26.04 percent, and the less at good level (10-12 points), 27 people, or 7.48 percent, at the standard deviation of 2.275. Results reveal that the most answer correctly are question no. 2, sexual emotion caused by hormones and external stimuli which can happen to everyone, and question 4, blood tests before marriage can prevent AIDS, sexually transmitted diseases, and genetic disorders. The majority of the sample, 325 people, or 90.03 percent, choose Yes which means they are knowledgeable, followed by question no. 3, staying alone with the opposite sex/ trip to his or her home/ allow to touch the body/ get drunk or be drugged, would lead to have the inattentive sex. The sample, 320 people, or 88.64 percent, choose Yes. The less knowledgeable about sexual health

is question no. 6, having sex with friend can reduce the risk of HIV infection and sexually transmitted infection, there are 262 people (72.58 percent) answer this question incorrectly. Followed by question no. 5, masturbation is harmful to health, there are 193 people (53.46 percent) answer this question incorrectly.

Table 3
Sexual health care needs for the students.

Item	Choices	Frequency (people)	Percent
1. If we establish the reproductive health and sexual health clinic, where should it be located?	University precinct	356	98.61
	Nursing room	291	81.74
	University Dormitory	21	5.90
	Library	12	3.37
	Student Union	27	7.58
	School building	3	0.84
	Outside the University	215	59.56
	Hospital	93	43.56
	Public Health Unit	87	40.47
	Dormitory	13	6.05
2. Clinic services	Department Store	20	9.77
	Family planning	171	43.37
	Unwanted pregnancy consulting clinic	221	61.22
	Blood examination for HIV	148	40.00
	Referral system	59	16.34
	Sexual Transmitted Disease Clinic	178	49.30
3. Medium/tools/facilities	Per Vaginal Examination	8	2.22
	Computer/Internet	237	65.65
	Journal/Magazine for teenager	152	42.11
	Relaxing corner/Reading corner	129	35.73
	Condom vending/Condom Machine	125	34.63
	Contraception media	98	27.15
	Pregnancy test kit	107	29.64
4. Convenient channel to receive the service	Sexual organ model	49	13.57
	Clinic	178	49.31
	Telephone/Hotline	108	29.92
	Facebook	210	58.17
	Line	94	26.04
	E-mail	71	19.67
5. Preferable service day	Fanpage	83	22.99
	Everyday	222	61.50
	Working Day	84	23.27
	Weekend	58	16.07
6. Preferable service time	Specific day	5	1.39
	24 Hours	167	46.26
	4.30 -8.00 pm.	60	16.62

Item	Choices	Frequency (people)	Percent
7. Channel to publicize	8.00 -12.00 pm.	11	3.05
	Brochure/ Poster	188	52.08
	Voice on wire	46	12.74
	Campaign	103	28.53
	Mainstay	54	14.96
	Lecturer/ Staff	59	16.34
	University Website	109	30.19
	Facebook	222	61.49
	Fan page	101	27.98
	Line	84	23.27
	Teacher/Lecturer	59	16.34
	E-mail	48	13.30
8. Preferable service provider	Others	11	3.05
	Teacher/Lecturer	67	18.56
	Nursing Room Teacher	94	26.04
	Friends/Mainstay/Contemporary	90	24.93
	Medical staff	214	59.28
	Others eg. People, Experience man	7	1.94

Table 3 showed that the majority of the students (356 people, or 98.61 percent) preferred the reproductive health and sexual health clinics in university precinct, especially should located in Nursing room (291 people, or 81.74 percent), followed by student union (27 people, or 7.58 percent). The participants also revealed that they prefer the service in the clinic such as unwanted pregnancy counseling (221 people, 61.22 percent), followed by Sexual Transmitted Disease Clinic (178 people, or 49.30 percent), and family planning services (171 people, or 43.37 percent). In the light of medium, tools, and facilities in the clinic, the participants revealed that they prefer computer or internet, journal or magazine for teenager, and relaxing corner or reading corner, by 237 people (65.65 percent), 152 people (42.11 percent), and 129 people (35.73 percent) in respectively.

In addition, the samples revealed as follows; the convenient channel to receive the service, the majority prefer to use Facebook (210 people, or 58.17 percent); preferable service day, the majority prefer everyday (222 people, or 61.50 percent); preferable service time, the majority prefer 24 hours (167 people, or 46.26 percent); channel to publicize, the majority prefer Facebook (222 people, or 61.49 percent), followed by brochure or poster (188 people, or 52.08 percent); and preferable service provider, the majority prefer Medical staff (214 people, or 59.28 percent), followed by Nursing Room Teacher (94 people, or 26.04 percent).

DISCUSSION & CONCLUSION

Discussion

Results showed that:

1. Students' knowledge on sexual health care. Finding revealed that the students' knowledge about sexual health at moderate level (6-9 points), 240 people, or 66.48 percent, average 6.54, standard deviation at 2.275. Considering the most answer correctly, there was 2 questions, the same number or 90.03 percent, which are: sexual emotion caused by hormones and external stimuli which can happen to everyone; and blood tests before marriage can prevent AIDS, sexually transmitted diseases, and genetic disorders. On the other

hand, the most answer incorrectly was: masturbation is harmful to health (16.07 percent); and having sex with friend can reduce the risk of HIV infection and sexually transmitted infection (262 people, 72.58 percent).

2. Students' needs for the sexual health care. The majority of the students, 356 people, preferred the reproductive health and sexual health clinics in university precinct. In the light of medium, tools, and facilities in the clinic, the students revealed that they prefer computer or internet, journal or magazine for teenager, and relaxing corner or reading corner, by 237, 152, and 129 people, in respectively. The convenient channels to receive the services were as follows: Facebook, Clinic, Telephone/ Hotline, Fanpage, and E-mail, by 210, 178, 108, 94, 83, and 71 people, in respectively. Preferable service day were as follows: everyday (222 people), followed by working day (84 people). The most preferable service time was 24 Hours. Channel to publicize were as follows: Facebook, Brochure/ Poster, University Website, Campaign, Fan page, Line, and Lecturer/ Staff, in respectively. Preferable service providers were as follows: Medical staff, Nursing Room Teacher, and Friends/Mainstay/Contemporary, by 214, 94, and 90 people, in respectively.

Conclusion

Additional suggestion from the students about the reproductive health and sexual health clinic:

- The Place

Conveniently located near the university, is easy to find uncrowded not entirely explicit privacy.

- The decor/ style place

Living with privacy with the curtain closed, clean feel relaxed, safe and quiet.

Spacious, well ventilated, crowded with colorful modern decor with clean-air leisure facilities.

- Services

With international standards, modern equipment, fast service, the service providers have the knowledge and capabilities. The expert advice is easy to recognize good service; polite, well spoken, friendly smile, can talk like a family without the pressure, keep customer information in secret, and free of charge.

Suggestion of Research Results Application

1. Provides knowledge of sexual health for students in university follows the research results that most of the students having moderate knowledge of sexual health by using various means which modern and appropriate to teenage interesting as well as ease of access, convenient, fast and 24-hours a day service.
2. Provide subject related to sexual health in general education section in order to allow student who interested as an option.
3. Provide policy regarding sexual health service and designated responsible organization within the university. Arrange clinic format comply with those recommended by the students in such a way that students can get the service easier and motivate them to participate more.
4. As the results of research, the researcher believe that providing of additional sexual health care in university using social media as the tools would be helpful. Because of the new media play are important role in adolescents. [14]

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REFERENCES

- [1] Anlaya. Smuseneeto. (2013). Perspective of Reproductive Health from Muslims in Southern Border of Thailand. URL: <http://rupattani.myreadyweb.com/article/topic-42801.html>

- [2] Boonsri Kittichottipanich, Udomporn Yingpaiboonsook, Pongsri Somsauy, Suntaree Kositwon. (2016). Model of Health Promotion Model of Health Promotion for Reducing Risk Behaviors of Preterm Birth In Teenage Pregnancy. Oral presentation, 4 th. International Conference on Business, Economics, Social Science and Humanities, Tokyo, May 26-27, 2016.
- [3] Boonrit, Sukkarat. (2014). **Pregnancy in Teenager: Policy, Procedure, Analyzing, and Follow up**. Bangkok: Cooperative Community Thailand.
- [4] Bureau of Reproductive Health. 2011. **Policy and Strategy of National Reproductive Health Development Book 1 (2010-2014)**. Nontraburi: Bureau of Reproductive Health Department of Reproductive Health Ministry of Public Health.
- [5] Department of Health. (2015). **Handbook for Operation Staff about Reproductive Health**. Bangkok: The War Veterans Organization of Thailand Publishing.
- [6] Lowdermilk, Deitra Leonard and e.t. (2014). **Moternity & Women's Health Care**. St. Louis: Mosby
- [7] Ministry of Social Development and Human Security. (2013). **Teenage Obstetric Status in Thailand 2013**. Bangkok: Khrurusapha Publishing.
- [8] Patcharee, Tonsiri and other. (2013). Western University/Nursingkan/Sexuality Risk Behaviors in Secondary School Students. URL: <http://www.western.ac.th/wertrennew/admin/uploadwd/nursingkan/files.pdf>
- [9] Prapaiwan Danpradit, Boonsri Kittichotipanich, Pongsri Suntaree Kositwon. (2016). Effects of Group Nutritional Health Promotion on Birth Weight In Pregnant Women with Gestational Diabetes Mellitus 4 th International Conference on Business, Economics, Social Science and Humanities, Tokyo, Japan, May.
- [10] Ricci, S.S., (2013) **Essentials of Maternity, Newborn, & Women's Health Nursing (3rd ed.)**. New York: Wolters Kluwer Health.
- [11] Viroj, Areekul. (2010). **Health care and How to Give Advice to Teenager**. Bangkok.
- [12] Udomporn, Yingpaiboonsuk. & Premwadee, Karuhadej. (2011). **Sexual Orientation of College Students in Rattanakosin Area**. Suan Sunandha Rajabhat University, Bangkok, Thailand.
- [13] UNFPA 2013. Available from http://countryoffice.unfpa.org/Thailand/drive/CONTENT_ENG_draft_6.pdf
- [14] The National Campaign to Prevent Teen and Unplanned Pregnancy. (2008). Sex and tech: Results from a survey of teens and young adults. Washington, DC: The National Campaign to Prevent Teen and Unplanned Pregnancy. Retrieved from <http://thenationalcampaign.org/resource/sex-and-teen> Last updated: January 04, 2017

ENVIRONMENTAL MANAGEMENT BEST-PRACTICE AND STRATEGIES WITHIN THE INSTITUTIONAL CONTEXT: THE CASE OF (UAE)

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ABSTRACT

Abstract—The increasing growth of the use of Natural Resources to expedite development, industry, real-estate and different other business sectors are negatively affecting UAE environmental system. The poor Environmental Management (EM) may result in dangerous pollution, and its effects are indeed countless and wide ranging

This study seeks to investigate the best practice and strategies that are used by UAE government to handle the dilemma of economic growth and environmental protection within the institutional context.

Environmental Management is the system, practice and procedure that govern the manner in which objectives of the organization are realized through the minimization of adverse environmental impact, efficient utilization of resources and reduction in resource consumption

This paper investigates the strategic perspective of EM in UAE and how the Communities of practice (COPs) perceive the EM, whether it exists in UAE culture, strategies, policies, programs, funding opportunities or not. It also explores if there is any informal/formal support for engagement activities that can undergird the ability to create a strong engagement program in the community.

The methodology used empirical research and questionnaire conducted in Communities of practice (COPs), formal and Informal social networks of professionals and expertise who had similar work-related activities and interests in environmental management. The main UAE Environmental Management (EM) programs, activities, and policies were included as a part of the data analysis.

Keywords: UAE, Environmental Management, Institutional Context, Best Practice

INTRODUCTION

Recently, the task of managing of environmental conditions around the world has received many interests and a wide range of debate. "The environment has become a critical issue in business today." (Walton, Steve V.; Handfield, Robert B, et al. 1998 p 34)

Most of the countries have established policies, goals, strategies, programs, and action plans on environmental management to protect their environment. Environmental protection has also become an important part of corporate social responsibility (Fang-Yuen 2013).

For instance, the government of Malaysia has implemented various measures in the environmental management, such as organizing an urban environmental management program (Haimdi, Hussain, Tuen, PahRokiah et al. 2015). The different regulations and rules are used in the various countries to manage and regulate environment. Germany has approximately 35,000 environmental regulations (Michael 2006). A recent study from Hungary found that the number of EMS-certified companies in Hungary has grown rapidly, reaching more than 800 at the beginning of 2005 (Malic's, Gyorgy: Racz, Gabor et al. 2007).

The challenges of environmental management in African Countries are entirely different from the rest part of the world. For example, in Zimbabwe, the legislation was fragmented and outdated and lacked adequate human and financial resources to enforce EMS (Naome, Rajah, Dino et al. 2012).

There are many benefits of implementing best practice of environmental management. It enables government to protect environment and reduce cost at the same time (Christman 2000)

To understand the importance of environmental management best practices and strategies, this study examined the best practices and strategies in UAE within its institutional context

This paper primarily aims to investigate the best practices and strategies that used by UAE government. UAE is one of the important countries that adopt the green economy strategy to sustain economic growth (Green Economy Report 2016)

2. LITERATURE REVIEW:

Environmental Management is regarded as one of the most dynamic perspectives that have received large controversy about its importance to society. *The corporate approach to environmental protection has been evolving from a regulation-driven reactive mode to a more proactive approach. This approach involves voluntarily adopted management systems that integrate environmental concerns with traditional managerial functions* (Madhu Khanna, and William Rose Q. Anton 2002).

The agreement on the definition of Environmental Management is hardly found. There are large numbers of different proposals of Environmental Management (Marks. S. Reed 2008). The complex and dynamic nature of environmental problems requires flexible and transparent decision-making that embraces a diversity of knowledge and values.(Business Dictionary 2017). The environmental management is defined as the administrative functions that develop, implement, and monitor the environmental policy of an organization. The numerous efforts to bring about a clear and unbiased definition of environmental management are made. There are still some confusions as to how environmental management should be defined (Morelli 2011).

The confusion in environmental management comes from the extreme definitions. The one is very narrowly defined by K. Sinding (2001) related to inter-organizational environmental management. According to this definition, the firm pursues all of the environmental implication of their actions, both in thought or in action. In other words inter-organizational environmental management involves learning about the environmental impacts. The learning comes from the supply chain and life cycle of products, and interacting with firms or organizations in the supply chain to reduce these impacts. GRUMBINE (1994) proposed the idea of integration. The ecosystem management integrates scientific knowledge of ecological relationships within a complex sociopolitical and values framework. The general goal is to protect native ecosystem integrity over the long term".

Philip & Margaret (2001) identified EM Costs and Benefits

Table (1) shows the EM Costs and Benefits

POTENTIAL COSTS	POTENTIAL BENEFITS
Internal • Staff (manager) time • Other employee time (Note: Internal labor costs represent the bulk of the EMS resources expended by most organizations)	• Improved environmental performance • Enhanced compliance • Prevention of pollution/resource conservation • New customers / markets • Increased efficiency / reduced costs

<p>External</p> <ul style="list-style-type: none"> • Potential consulting assistance • Outside training of personnel 	<ul style="list-style-type: none"> • Enhanced employee morale • Enhanced image with public, regulators, lenders, investors • Employee awareness of environmental issues and responsibilities
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Barrow (1999) identified several characteristics for environmental management in his book “Environmental Management: Principles and Practice” such as:

It is often used as a generic term;

It supports sustainable development;

It deals with a world affected by humans (there are few, if any, wholly natural environments today);

It demands a multidisciplinary or interdisciplinary approach;

It has to integrate different development viewpoints;

It seeks to integrate science, social science, policy making and planning;

It recognizes the desirability of meeting, and if possible exceeding basic human needs;

The timescale involved extends beyond the short term, and concern ranges from local to global;

It should show opportunities as well as address threats and problems;

It stresses stewardship, rather than exploitation

Harger & Meyer (1996) argued that the environmentally sound and sustainable development (ESSD) indicators are effective in assessing results of program and project interventions. These are now considered very important for the identification of progress in environmental activities in both developing and developed countries.

Mihalič (2000) added another dimension of environmental quality for the environmental management. The environmental quality refers to the quality of the natural features of the destination, deteriorated by human activities. Natural features like beautiful scenery, natural hydrologic structures, clean water, fresh air and species diversity suffer from pollution and therefore lose their attractiveness.

Based on the above literature review, four hypotheses are developed to understand how UAE implements best practices and strategies of the environmental management within the institutional context:

H1: There is a clear line of environmental management strategies in UAE

H2: Business firms in UAE response to environmental concerns by integrating environmental management into business structure and systems

H3: Sustainable development is an important driver for UAE to engage in environmental management

H4: Accountability and compliance with International Environmental Standard & Principles is the best practice in environmental management in UAE

2.1 Environmental Management in UAE:

There is a growing awareness with environmental issues and climate change in UAE.

The greatest contribution to environmental management of UAE government comes from its UAE VISION 2021. The vision states; “The UAE Government wants to ensure sustainable development while preserving the environment, and to achieve a perfect balance between economic and social development”. The UAE Vision 2021 National Agenda focuses on improving the quality of air, preserving water resources, increasing the contribution of clean energy and implementing green growth plans.

Institutional context is considered very important for environmental management. The vision is transferred into character, programs, funding opportunities, and informal/formal support for engagement activities. This vision also undergirds the ability to create a strong engagement program in the community.

The following are the key performance indicators for the sustainable environment

Table (2) below shows Sustainable Environment Key Performance Indicators

Indicator	Definition	Source	2012 Results	2021 Targets	Key sponsor
Air Quality Index	An indicator that measures the quality of air in terms of supplying daily information on pollution and the negative effects it may have on human health. The indicator measures the (4) main air pollutants: nitrogen dioxide, carbon monoxide, sulphur dioxide, ozone	Ministry of Climate Change and Environment in coordination with the National Center for Meteorology & Seismology	65.30% (2015)	90%	Ministry of Climate Change and Environment
Percentage of Treated Waste of Total Waste Generated	An indicator that measures the percentage of treated waste out of the total generated waste (solid municipal waste) using various treatment methods (recycling, incineration, waste-to-energy, chemical treatment, exporting for external treatment, except for the landfill), in line with the methodology used by the OECD.	Ministry of Climate Change and Environment in coordination with the Federal Competitiveness and Statistics Authority	20.77% (2015)	75%	Ministry of Climate Change and Environment
Share of Clean Energy Contribution	An indicator that measures the contribution of clean energy sources (renewable, nuclear) to the total energy mix	Ministry of Energy	0.23% (2015)	27%	Energy Contribution Ministry of Energy
Water Scarcity Index	An indicator that measures water overuse by monitoring fresh water usage (including surface water, renewable water	Ministry of Energy	Ratio of 6.95 (2015)	Ratio of 4.0	Ministry of Energy

	and fossil water) as a percentage of overall renewable water in the UAE. The result is weighted to take into account desalination and waste water treatment.				
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Source: NATIONAL KEY PERFORMANCE INDICATORS (UAE VISION 2021)

3. Data and Methodology

The sample is taken to examine the hypotheses of this paper consists of 55 formal and informal social networks of professionals and expertise. They all have similar work-related activities and interests in environmental management known as Communities of Practice (COPs). Survey questionnaire reflecting related and significant research areas have been used as an instrument for collecting data using a five-point Likert scale. The scale ranges from strongly agree, agree, neutral, disagree, to strongly disagree to determine the response of the sampled participants.

The first part of the questionnaire covers demographic information. This includes five questions about gender, age, highest qualification, specialty and position in Communities of practice (COPs). The second part includes 14 questions capturing the opinions of the participants on Environmental Management Best-Practices & Strategies within the Institutional Context. The third part of questionnaire presents ordinal factors that drive UAE to engage in Environmental Management and important for best practices in environmental management according to the participants' views. The participants rate on a five-point scale with "5" being "very low" and "1" very high. The fourth part of the questionnaire is opened for the participants' suggestions on environmental management best-practices and strategies.

3.1 Data Analysis

The statistical software package such as SPSS is used to analyze the collected data. ANOVA test is performed to test the hypotheses. The study examined whether there is a clear line of environmental management strategies in UAE. The study also investigated that how business firms in UAE response to environmental concern by integrating environmental management into business structure and systems.

Seventy questionnaires were distributed and 55 have been returned achieving 79% response rate. Cronbach's alpha is applied to study reliability and internal consistency of the scale. It is widely employed because it uses a great deal of information about the items in questions and their correlations (Alan, 1995).

The reliability (Cronbach's alpha) of this instrument was 0.86 with the number of items 14. The results indicate that the measuring instrument is capable of consistently measuring the same construct (Table 3)

Table (3) Reliability Statistics Cronbach's alpha based on standardized item

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.860	.866	14

The reliability in this case considered highly significant because it is more than 0.7

Table (4) shows that 37 of the participants (67.3 %) are female, while 18 are male (32.7%).

Table (4) Descriptive Statistics of Data Collected

		Frequency	Percent
Valid	Female	37	67.3
	Female	18	32.7
	Total	55	100.0

The previous information also was illustrated in Figure 1.

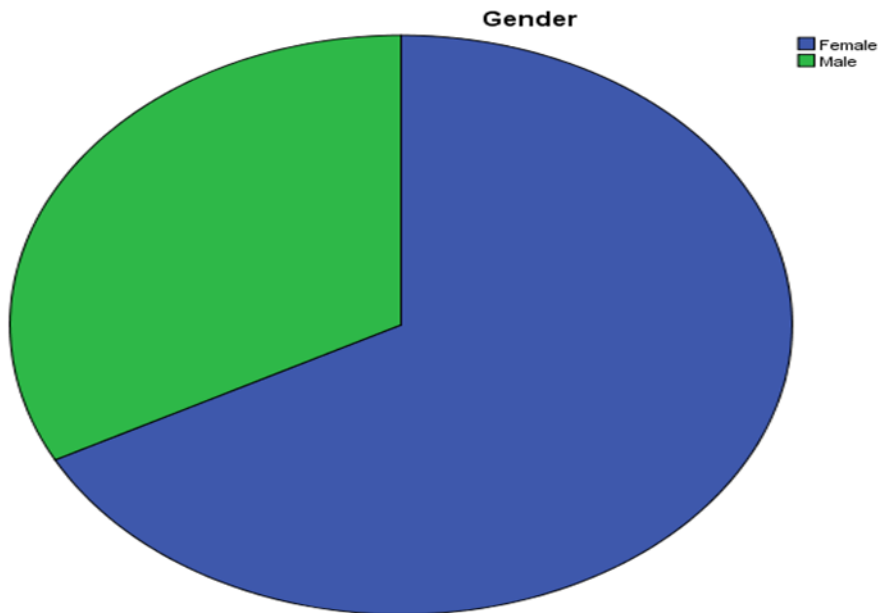


Table 5 also shows that 33 of the participants (60 %) held the Emeriti Nationality among others. The 22 (40 %) were from different nationalities, such as Egyptian, Indian, Jordanian, Iraqi, New Zealand, Pakistani, Sudanese, Syrian, and Tunisian

Table (5) Nationality

	Frequency	Percent
Missing	2	3.6
Egyptian	6	10.9
Emirati	33	60.0
Indian	2	3.6
Jordanian	3	5.4
Iraqi	1	1.8
Valid New Zealand	1	1.8
Pakistani	1	1.8
Sudanese	2	3.6
Syrian	1	1.8
Tunisian	3	5.5
Total	55	100.0

As can be seen in Table 6, the large majority of participants (60 %) had a bachelor degree, 9 had master degree (16.4%), while the PhD degree participants were 7 (12,7 %), and higher school 5 (9.1%)

Table (6) Highest Qualification

	Frequency	Percent
Secondary school	5	9.1
Bachelor's Degree	33	60.0
Valid Master Degree	9	16.4
PhD	7	12.7
Total	54	98.2
Missing System	1	1.8
Total	55	100.0

Table 7 also shows that the most selected position in Communities of practice (COPs) is the environmental expert and the least one was environmental project manager. Around 18 (32.7%) of the participants held the title of environmental expert and 6.8% were environmental project manager

Table (7) Position in Communities of Practice (COPs)

Practice	frequency	Percentage
Environmental Practitioner	7	12.7%
Environmental Engineering	12	21.8%
Environmental Specialist	11	20.0%
Environmental Researcher	10	18.2%
Environmental Project Manager	2	3.6%
Environmental Consultant	4	7.3%
Environmental Expert	18	32.7%

The below table (Table 8) presents respondents' views about two questions. They are as 1) whether there is a clear line of Environmental Management Strategies in UAE, and 2) do Business Firms in UAE response to environmental concern by integrating the Environmental Management into business structure and systems.

Table (8) Attitudes towards the Environmental Management Best-Practice and Strategies in UAE

No.	OPINION	SA	AG	UN	DA	SD
1	I believe that there is a clear line of Environmental Management Strategies in UAE	23.6%	69.1%	3.6%	3.6%	0.0%
2	I believe that there is a clear Governance for Environmental Management in UAE	25.5%	61.8%	9.1%	1.8%	0.0%
3	I believe that there is shared responsibilities across the stakeholders for Environmental Management	16.4%	58.2%	14.5%	7.3%	0.0%
4	I believe that there is higher coordination and collaboration between Federal and Local Government	20.0%	52.7%	20.0%	3.6%	3.6%
5	I believe that there is a clear Environmental Management tools in UAE such as organized of set activities, actions, process	23.6%	61.8%	10.9%	1.8%	0.0%

6	I believe that there is a general awareness training program provided to UAE communities	12.7%	67.3%	10.9%	5.5%	3.6%
7	I believe that there is a clear Public Involvement plans implemented in UAE	18.2%	49.1%	21.8%	10.9%	0.0%
8	I believe that there is a one of the most important environmental management used is pollution control and pollution prevention	16.4%	50.9%	21.8%	9.1%	0.0%
9	I believe that UAE environmental strategy aims to minimize its contribution to climate change	36.4%	50.9%	9.1%	1.8%	0.0%
10	I believe that Business Firms in UAE response to environmental concern through observing legal requirement	14.5%	72.7%	10.9%	1.8%	0.0%
11	I believe Business Firms in UAE response to environmental concern through integrated the Environmental Management into business structure and systems	9.1%	81.8%	7.3%	1.8%	0.0%
12	I believe that Business Firms in UAE response to environmental concern through achieve environmental & business excellence	12.7%	65.5%	14.5%	5.5%	1.8%
13	I believe that Business Firms in UAE response to environmental concern through improve and use efficiency by control resources and use high efficient technology	16.4%	58.2%	20.0%	3.6%	1.8%
14	I believe that Business Firms in UAE response to environmental concern through invest in cost – efficient renewable energy systems	18.2%	52.7%	18.2%	7.3%	1.8%

In the above table there is a percentage summary for all the responses of participants. The data shows that majority of the questions got the participants opinion as strongly agree or agree.

The majority of the respondents (92.7%) agreed that there is a clear line of Environmental Management Strategies in UAE. Around 87.3% said that there is a clear Governance for Environmental Management in UAE, there is a general awareness training program provided to UAE communities, UAE environmental strategy aims to minimize its contribution to climate change. This proves the hypothesis that there is a clear line of Environmental Management Strategies in UAE.

Seventy eight percent of the participants agreed that Business Firms in UAE response to environmental concern through observing legal requirement. Around 90% of participants agreed that the Business Firms in

UAE response to environmental concern by integrating the environmental management into business structure and systems.

Seventy eight percent of COPs knew that Business Firms in UAE response to environmental concern to achieve environmental & business excellence. Around 74.6% of them also agreed that Business Firms in UAE response to environmental concern to improve efficiency through control of resources and use of high efficient technology. Around 71% agreed that Business Firms in UAE response to environmental concern to invest in cost-efficient renewable energy systems. The results prove the hypothesis of the study that Business Firms in UAE response to environmental concern by integrating the environmental management into business structure and systems.

Table (9) Mean and Std Deviation for participant response

Opinion	Mean	Std. Deviation	Rank
I believe that there is a clear line of Environmental Management Strategies in UAE	4.13	0.64	13
I believe that there is a clear Governance for Environmental Management in UAE	4.05	0.848	12
I believe that there is shared responsibilities across the stakeholders for Environmental Management	3.73	1.062	2
I believe that there is higher coordination and collaboration between Federal and Local Government	3.82	0.925	7
I believe that there is a clear Environmental Management tools in UAE such as organized of set activities, actions, process	4.02	0.85	11
I believe that there is a general awareness training program provided to UAE communities	3.8	0.869	5
I believe that there is a clear Public Involvement plans implemented in UAE	3.75	0.886	4
I believe that there is a one of the most important environmental management used is pollution control and pollution prevention	3.69	0.979	1
I believe that UAE environmental strategy aims to minimize its contribution to climate change	4.24	0.699	14
I believe that Business Firms in UAE response to environmental concern through observing legal requirement	3.96	0.744	9
I believe Business Firms in UAE response to environmental concern through integrated the Environmental Management into business structure and systems	3.98	0.49	10
I believe that Business Firms in UAE response to environmental concern through achieve environmental & business excellence	3.8	0.869	6
I believe that Business Firms in UAE response to environmental concern through improve and use efficiency by control resources and use high efficient technology	3.82	0.884	8
I believe that Business Firms in UAE response to environmental concern through invest in cost – efficient renewable energy systems	3.73	1.027	3

The results of above table clearly indicate that how the participants consider the study variable as very importance and reflected from the mean of their answers in the ranks column. The items with higher rank are the more important.

Table (10) variance for questions

	Mean	Variance	N of Items
Item Means	3.893	.030	14

The above table shows the overall mean and variance for part two questions. The results of data give positive indication that majority of the participants shown agreement with study items.

Table (11)ANOVA with Friedman's Test and Tukey's Test

		Sum of Squares	df	Mean Square	Friedman's Chi-Square	Sig	
Between People		195.107	53	3.681			
Within People	Between Items	20.784	13	1.599	3.108	0.00	
	Residual	Nonadditivity	7.177a	1	7.177	14.22	.000a
		Balance	347.253	688	0.505		
		Total	354.43	689	0.514		
Total		375.214	702	0.534			
Total		570.321	755	0.755			

The ANOVA table shows that there was consistency between the items, between the participants and within the participants where the P value ($P < 0.05$) reflects the significance.

Table (12) presents ordinal data of participants regarding drivers for UAE to engage in environmental management according to their importance.

No.	UAE drive to engage in Environmental Management	Rank Mean	Rank
1	Climate Change	3.07	5
2	International Policy Framework	3.55	4
3	National Policy Framework	2.78	2
4	Sustainable Development	2.2	1
5	Environmental Initiatives	2.84	3

Table (13) presents ordinal views of participants regarding best practice in environmental management according to their importance.

No.	UAE Best Practice in Environmental Management	Rank Mean	Rank
1	Go Green	2.4	1
2	Environmental Innovations	2.96	2.5
3	Gives award for Environmental Management best practice	3.04	4
4	Accountability and compliance with International Environmental Standard & Principles	2.96	2.5
5	Continual Improvement	3.36	5

The third part of questionnaire is used to know the important drivers for UAE to engage in environmental management, as well as the important best practices in environmental management. The participants score on a five-point scale with “5” being “very low” and “1” very high.

According to the participants’ views, the order of some drivers for UAE to engage in environmental management according to their importance comes as follows:

Sustainable Development

Environmental Initiatives

National Policy Framework

International Policy Framework

Climate Change

While order of best practices in environmental management according to their importance is as follows:

Go Green

Accountability and compliance with International Environmental Standard & Principles

Environmental Innovations

Gives award for Environmental Management best practice

Continual Improvement

CONCLUSION

The main aim of this paper is to examine the best practice and strategies that used by UAE government to handle the dilemma of economic growth and environmental protection within the institutional context

. Three of the hypotheses designed were accepted, indicating that there is a clear line of environmental management strategies in UAE. Secondly, the business firms in UAE response to environmental management. They practice it by integrating the environmental management into business structure and systems.

Participants agreed that sustainable development is an important driver for UAE to engage in environmental management.

The hypothesis of accountability and compliance with International Environmental Standards and Principles for best practices in environmental management in UAE is rejected. , The participants' priority in order is to Go Green First.

5. REFERENCES

Alan, B. (1995). *Research methods and organization studies*. London: Routledge

Business Dictionary (2017). Retrieved from <http://www.businessdictionary.com/definition/environmental-management.html>.

C. J. Barrow, *Environmental Management: Principles and Practice* (London: Routledge, 1999), 3,

Fang-Yuan Chen. (2013) "Managers' Views on Environmental Management: An Examination of the Taiwanese Airline Industry," *Journal of Sustainable Development* 6, no. 1

green Economy Report 2016. Retrieved from http://www.moccae.gov.ae/assets/644fa89a/state-of-green-economy-report-2016_summary

GyorgyMalovics, Gabor Racz, and Sascha Kraus.(2007) "The Role of Environmental Management Systems in Hungary - Theoretical and Empirical Insights*," *Journal for East European Management Studies* 12, no. 3

Hamidi Ismail et al.(2015), "Community Involvement in Urban Environmental Management System," *Asian Social Science* 11, no. 12 (2015),

J.R.E. Harger,(1996) F.-M. Meyer: Definition of indicators for environmentally sustainable development Original Research Article, *Chemosphere*, Volume 33, Issue 9, November, Pages 1749-177

Madhu Khanna, and William Rose Q. Anton. (2002) *Corporate Environmental Management: Regulatory and Market-Based Incentives*, *Land Economics*, vol. 78 no. 4 539-558

Mark S. Reed. (2008) Stakeholder participation for environmental management: A literature review, *Biological Conservation* Volume 141, Issue 10, October 2008, Pages 2417–2431

Michael Watson, (2006), "Protecting the Environment: The Role of Environmental Management Systems," *The Journal of the Royal Society for the Promotion of Health* 126, no. 6

Morelli, John (2011) "Environmental Sustainability: A Definition for Environmental Professionals," *Journal of Environmental Sustainability*: Vol. 1: Iss. 1,

NATIONAL KEY PERFORMANCE INDICATOR. Retrieved from <https://www.vision2021.ae/en/national-priority-areas/nkpi-export-pdf>

Petra Christmann Effects of (2000) "Best Practices" of Environmental Management on Cost Advantage: The Role of Complementary Assets, *ACAD MANAGE*, 43:4 663-680;

Philip J. Stapleton, Margaret A. Glover. (2001) *Environmental Management Systems: An Implementation Guide for Small and Medium-Sized Organizations*, NSF International Ann Arbor, Michigan

R. EDWARD GRUMBINE. (1994) What Is Ecosystem Management? *Conservation Biology*, Pages 27-38 Volume 8, No. 1,

Rajah Naome, Dino Rajah, and Steven Jerie.(2012) "Challenges in Implementing an Integrated Environmental Management Approach in Zimbabwe," *Journal of Emerging Trends in Economics and Management Sciences* 3, no. 4

Sinding, K. (2000). Environmental management beyond the boundaries of the firm: definitions and constraints. *Business Strategy and the Environment*, 9(2), 79-91.

Steve V. Walton, Robert B. Handfield, and Steven A. Melnyk. (1998), "The Green Supply Chain: Integrating Suppliers into Environmental Management Processes," *International Journal of Purchasing and Materials Management* 34, no. 2

Tanja Mihalič: (2000) Environmental management of a tourist destination: A factor of tourism competitiveness
Tourism Management, Volume 21, Issue 1, Pages 65-78

UAE VISION 2021. Retrieved from
https://www.vision2021.ae/sites/default/files/pmo_emirates_in_numbers_brochure-optimized.pdf

Activity-Based Costing of Library Services in Universities – A Case Study of a Private University

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ABSTRACT

An organization's costing system is a system that helps the management with the strategy planning while the system plays an important role in providing accurate cost information about the products and customers. In other words, the costing management system is important to provide timely and quality information to help managers in their decision making process. Producing quality graduates is the main objective of any university and the cost of quality or the cost of poor quality is one that is often difficult to measure in higher education. This can be partly attributed to the fact that most accounting systems are not structured to capture important cost-of-quality information.

In order to succeed, many organizations tend to shift from conventional or traditional costing system to Activity-Based Costing (ABC). ABC provides both higher education administrators and policymakers with better information on which to base decisions. The approach provides information to universities that could help them in better projections and forecasting. Not only that, this approach provides information on different activities and identifies the high cost areas and high impact activities that can help administrators in decision making process. The use of multiple cost pools and drivers under ABC leads to more detailed and accurate product costing than that provided by traditional cost systems. The individual activities become the central cost focus with the assigning of costs to activities based on the way in which the resources are consumed by the activities. Managers can then determine whether certain activities are necessary or whether they can be eliminated. Only services that are value adding are maintained while nonvalue-adding services can be eliminated, resulting in cost savings for the university

Although not trained as accountants, library managers rely on accounting information for strategic planning and operational decision-making. Increased demands for institutional accountability, with university performance and costs under increased scrutiny, place library managers under increased pressure to maintain quality services while faced with decreased funding and tighter budgets. A commitment to greater efficiency requires an understanding of cost behavior. Considering that there is no evidence of the costing systems in universities in the Kingdom of Bahrain, this paper attempts to investigate the possibilities and limitations of implementing ABC in the Royal University for Women. More specifically the paper discusses the benefits of ABC to library managers and explains the steps involved in implementing ABC in an academic library.

Key Words: costing systems, activity-based costing, cost drivers, costing of library services, universities

Influence of Cultural dimensions on Management practices in Hospitals: A Study of Indian Subcontinent

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ABSTRACT

This study examines the effect of national culture dimensions of collectivism, femininity, power distance and long term orientation on management practices in hospitals. A Paper pencil survey was conducted with 293 employees working in private hospitals of India. The scale of Dorfman & Howell for 3 culture dimensions, Furrer et al for long term orientation and questionnaire adapted from McConnell's Assessment guide for hospital management practices, were administered to same individuals. Results confirm that collectivism has positive effect on all 4 practices of admitting patients, discharge of patients, coordination on handoff and communication amongst staff. Femininity dimension only moderately influenced discharge of patients and communication amongst staff practice, in spite 73% were female respondents. This is one of few systematic attempts in Indian conditions and the finding will help management practitioners in adoption of hospital practices in India.

Key Words: Culture, healthcare, hospital management practices, Adoption

Introduction

Healthcare organizations (HCOs) worldwide seem to have similar fragmentation and turbulence which is impeding the capacity improve patient safety, and providing quality care (Institute of Medicine, 2003). The HCO experience indicates that organizing practices such as clear communication, effective problem solving, and essential to effective organizations aren't necessarily easy to implement (Ramanujan, 2006). It has been found that HCOs have low adoption rates of contemporary management techniques such as teamwork, staff and managerial competencies to better execute clinical and organizational practices, dedicated structures to promote patient safety, and feedback and redesign in implementing change initiative. HCOs have been slow to change. Studies show that it takes an average of 17 years for research findings to be translated into practice (Balas, 2003). Healthcare organizations appear to be even slower in adopting practices from other industries e.g. Malcolm Baldrige Quality award, set up in 1987, but was not awarded to a healthcare organization until 2002.

This adoption of management practices has been attributed in many studies to aspects of culture dimensions (Newman et al,1996; Neelankavil et al, 2000; Meeuwesen et al, 2011). Earley and Erez (1997) have effectively argued that there is direct relationship between culture and managerial belief/practices and cultural value shapes the meaning of workplace.

This paper aims to explore the relationship of culture dimension and hospital management practices. The aim of this research study is to examine influence of cultural dimensions on the patient care management practices of hospitals in India. To achieve the above we have structured the paper in briefly providing established

constructs on culture dimensions, providing theoretical and logical relationship of its influence on hospital management practices. Quantitative study is conducted by analysing the responses of employees working in private healthcare hospital in India i.e. linear regression. Finally the results are provided with likely implications. In future the findings of the study should help practitioners in adoption of management practices for healthcare/ hospital industry in India.

1. Literature Review

1.1. Management Practices in Hospitals

McConnell (2014) conducted study with cardiac units on four dimensions of management i.e. 1) Lean operations; (2) performance measurement; (3) target setting; and (4) employee incentives. This framework had been validated through survey with more than 6000 manufacturing firms as well as a large-scale field experiment in India and served as the basis for the newly introduced Management and Organizational Practice Survey (MOPS) component of the US Census. There is wide variation in the dissemination of management practices, with relatively few hospitals achieving “best” practice scores on most dimensions. Studies have found that fewer than 20% of hospitals score a 4 or a 5 on more than nine measures, and a majority score a 3 or lower on 15 out of 18 measures. Thus, there may be significant gains that can be achieved in healthcare quality and efficiency as hospitals move to adopt more effective management approaches

The 18 items as laid down in this study are:

1. Standardizing Patient Care/Lean operations - Admitting Patients , Standardization within units, Coordination on Hands off, Communication amongst staff, Patient focus, Discharging the Patient
2. Performance Management - Technology adoption, Monitoring of errors/Tracking, Continuous improvement , Performance review, Performance dialog
3. Target setting - Target balance, Target interconnection, Target Stretch
4. Employee incentives - Rewarding high performers, removing poor performers, Managing Talent, Retaining Talent

In this paper, we are going to focus on Patient care services /Lean operations only i.e. Admitting Patients, Coordination on Hands off, Communication amongst staff, discharging the Patient and four dimensions of culture basis Hofstede study i.e. power distance, individualism-collectivism, masculinity-femininity and long term-short term orientation.

1.2. Hofstede's Dimensions of Culture

Hofstede defined Culture as “the collective programming of the mind which distinguishes one group or category of people from another.” The essential core of national culture consists of traditional ideas valued by many individuals within a particular culture. (Kluckhohn's, 1954). The four dimensions of Hofstede considered are:

Power Distance defined as the degree of inequality among people which the population of a country considers as normal: from relatively equal (that is, small power distance) to extremely unequal (large power distance). All societies are unequal, but some are more unequal than others.

Individualism is defined as degree to which people in a country prefer to act as individuals rather than as members of groups. The opposite of individualism can be called Collectivism, so collectivism is low individualism.

Masculinity (its opposite pole Femininity) is the degree to which tough values like assertiveness, performance, success and competition, which in nearly all societies are associated with the role of men, prevail over tender values like the quality of life, maintaining warm personal relationships, service, care for the weak, and solidarity, which in nearly all societies are more associated with women's roles. Women's roles differ from men's roles in all countries; but in tough societies, the differences are larger than in tender ones

Long-term versus Short-term Orientation. Long-term side values oriented towards the future, like thrift (saving) and persistence, while short-term side values more the past than present, like respect for tradition and fulfilling social obligations.

1.3. Culture dimensions & its influence on management practices in hospital

Hofstede (1980, 2001) referred to power distance as the degree to which societies accept inequalities. Power distance influences the levels of participative decision making, centralization, and formal hierarchy within organizations (Hofstede, 2001). In high power distance cultures, individuals with power are seen as superior, inaccessible, and paternalistic and are expected to lead autocratically (Hofstede, 1980). Because individuals with power are perceived as superior and elite, those with less power accept their places in the hierarchy, trust their leaders, defer judgments to them (Kirkman, Chen, Farh, Chen, & Lowe, 2009). Here Communication amongst staff refers to communication between Nurses and patient care officers with Clinicians. Farh et al. (2007) argued that, in situations in which higher power distance is valued, individuals are less likely to rely on the norm of reciprocity when it comes to their behaviours and are less likely to develop personal relationships with their superiors because they prefer to maintain social distances. As such, the social exchanges inherent in attitude/perception-behaviour relations are less likely in high power distance contexts. Thus clinicians being at higher position and the patient facing employees at lower position, it is natural that the communications amongst them will be hampered. Hwang (2010) mentions seeking feedback in a class room setting in three ways, asking the superior in class, outside class and amongst students themselves. Hwang propounds that students with low power distance are more likely to ask questions, seek feedback, and clarify more an important aspect of any communication. The larger a nation's power distance, the less room there is for unexpected information exchange and the shorter the consultations are. Cultures where there is high power distance, will lead to less of feedback seeking and clarifying. Smith and Peterson's (2005) study of 7,390 managers across 60 countries, where higher power distance was found to significantly reduce reliance on vertical sources for guidance in both line and staff departments. Our hypothesis is that

H1 High power distance (PD) leads to lower efficacy of communications amongst staff.

McConnell describe the management practice of Discharging patients in hospitals as how much information is available and used about the patient after discharge and coordinated information is passed on to the next site. When the patient is discharged from your unit, how do you determine what type of discharge assessments and order sets to use?, Who is responsible for the patient after they are discharged from the hospital and before they see their primary care physician?, What systems are in place to help patients manage medications upon discharge?

Hofstede and Minkov share that in long-term-oriented cultures, main work values are learning, honesty, adaptiveness, accountability and self-discipline. One invests in life-long personal networks. The focus is on market position, and owner/managers and workers share the same aspirations. In short-term-oriented cultures, main work values are freedom, rights, achievement, and thinking for oneself. Personal loyalties vary with business needs. The focus is on this year's or this quarter's profits, and managers and workers are psychologically in two different camps. Those individuals with LTOs are more likely to be focused on future achievement and engaged in more frugal behaviour to reach their goals ((Lastovick et al., 1999) 88).

There are no immediate gains in providing and proactively following up with patients, however if we have the long term goal in mind, all these processes will be taken into consideration

As far as discharge of patients practice is concerned, in case the outlook is short term, it is more likely that once the patient has been treated the focus will quickly shift on to the next patient. However if the orientation is more long term, effort to discharge patients would be with greater concern.

H2 Long term orientation will influence the discharge of patient practice positively

McConnell in his study on management practices describe Admitting Patients as the standardized system and the protocols that are available. Some of the aspects that are considered are- How do you determine what types of information will be collected on patients entering the unit? Can this information vary between admitting teams or physicians? If there are pre-defined admission order sets or standardized assessments, how

do you know if they are being used? And If there are standardized assessments or pre-defined order sets, do they exist only for all or only speciality patients?

The masculinity/ femininity dimension assesses the degree to which "tough" values, such as assertiveness, success, and competition, prevail over "tender" values, such as nurturance, service, and solidarity. Feminine oriented culture exhibits a pattern of nurture, and there is a tendency toward less aggressive, more cooperative behaviour. To the extent that feminine societies frown upon opportunistic behaviour, the costs associated with such behaviour would be quite high (Doney et al, 1998). This clearly indicated cultures where Femininity is high will demonstrate better practices on admitting patients and also have higher focus on patient care.

H3 Femininity factor will influence the Admitting Patient management practice positively

There are several studies which have indicated the influence on aspects of managerial styles, practices and behaviours due to differences in National culture. Orientation to these dimensions may also influence the way a particular behaviour, process is approached to i.e. how. For example in individualists, whose self-definitions arouse interest in the pursuit of personal gains, cooperation should prove attractive only if working with others leads to the attainment of personal benefits that cannot be obtained by working alone. In all other instances, cooperative contributions to group performance and well-being have the effect of diminishing personal resources that can be directed toward more personally satisfying pursuits. Under these circumstances, individualists are likely to prefer to avoid cooperation and instead devote their attention to the pursuit of personal gains. In contrast, cooperation is consistent with the self-definitions of collectivists who favour the pursuit of group interests. In attending to group performance and well-being, collectivists are likely to seek out and contribute to cooperative endeavours that benefit their groups, irrespective of the immediate personal implications of these endeavours (Spence, 1985; Wagner, 1982). Salas, Cooke, and Rosen (2008) defined teamwork as "the interdependent components of performance required to effectively coordinate the performance of multiple individuals" (p. 541). Furthermore, to promote teamwork, they noted the importance of having team members with a collective orientation that would facilitate coordination and communication and subsequently improve team performance. Cooperation is assumed to be motivated by outcomes that benefit the group. In individualist societies, on the other hand, individuals presumably place more emphasis on self-interest and independence and seek to maximize individual goals (e.g., Wagner & Moch, 1986). In a hospital scenario Coordination Hands off is defined as are their protocols and practices available during nurse to nurse transition or any other transition between functions. These transitions involve cooperation and teamwork for seamless operations and least problems that may occur to the patients. Hence it is hypothesised that

H4 Collectivism factor will have positive influence effect on coordination hands off, communications amongst staff, admitting and discharge of patients

2. Research methodology

2.1. Data

306 respondent's i.e. employees who were working in hospitals in India participated in the online and paper pencil survey. There were 13 incomplete responses and hence were removed from the analysis. The sample composed of 77 males and 216 females, ages ranging from 19 to 58 with a mean of 29.9 yrs. and median of 28 years. The average age for women was about 29.2 and for men 31.5 years. 82% responses at staff level and 17% at middle management level. 47.5 % responses were from nurses, 31.3% responses from operations, and 10% responses each from doctors and paramedics group. Malayalam speaking respondents were the most i.e. 37.3%, followed by Marathi and Kannada i.e.17.9% each. Rest of languages were considered as non local (Tamil - 8.4%, Hindi - 7.3% and others languages Gujarati -, Telegu, Tulu, Nepali, Urdu, Konkani, Khasi, Manipuri, Punjabi, Oriya – 11.2%) Convenient sampling method was followed and data was collected only from Indians working in Indian hospitals. Refer Sample Characteristic table A.

2.2. Procedure

This study was done through paper survey and survey monkey tool was used. A 41 item questionnaire was used. Few follow ups were done with respondents to fill the survey. The questionnaire consisted of measurements on Cultural dimensions and management practices.

2.3. Measurements

3.3.1. Cultural dimensions

For the three Hofstede dimensions i.e. Individualism-collectivism (6 items); Masculinity- Femininity (9 items); Power-distance (6), Dorfman & Howell (1988) questionnaire has been used which is on a Likert Scale of 1-5 and has Cronbach's α : .63/.80/.57 for subscales respectively. Dorfman & Howell extended the measurement of culture usually conceived at cultural level to individual level. For measuring Long term orientation - (Furrer, Liu, & Sudharshan, 2000) has been used.

3.3.2. Management Hospital practices

For measuring Hospital management practices – McConnells's Assessment Interview guide was used an modified into a Likert scale of 1-5, with 5 as strongly agree/Almost always and 1 as strongly disagree/Never. The four practices that were measured were Admitting Patients (4 items), Coordination Hands off (4 items), Communication amongst Staff (4 items), Discharge of patient practice (4 items).

Cronbach alpha reliability was conducted on 293 responses with overall reliability of 41 item questionnaire at .791. Individual factors were also subjected to cronbach - reliability test and the results were as follows

Cultural dimension of Power distance (.527) after deleting one item related to use of authority, Masculinity – Femininity (.649) after removing one dimension related women valuing friendly atmosphere more than men, Long-term orientation (.519) after removing one dimension on Individualism-collectivism (.453) after removing question related to goal. On management practices in hospitals Coordination hand off (.535), Admitting Patients (.546) after removing a questions on usage of standardised assessments, Discharge of patients (.575) after removing a question on information regarding critical patients and Communication amongst staff (.702). While the overall cronbach alpha is .772 , the individualised dimension meet the Nunnally's (1967) standard od score more than .50. Relevant to mention that Peterson in his meta -analysis of cronbach alpha found that there were no substantive relationships between the magnitude of coefficient alpha and the research design characteristics investigated, with few exceptions.

3.3.3. Demographics

Data was also collected on age (numeric) and nominal data on gender, mother tongue, participant group, management level.

3. Results

Linear Regression was used. The linear regression tests separately the four hypotheses. While theoretically, we have considered one dimension of culture influencing the hospital management practice the most. During the statistical study, we have taken all the four independent variables (dimensions of culture), including the control variables of age, locations, mother tongue, participant group and management level and looked at the relation with dependent variable the four management practices.

Table: Collated Regression Output

Hospital Management practice-----> Culture dimension	Coordination Hand off	Communication amongst Staff	Admitting Patients	Discharge of Patients
Adjusted R2	0.196	0.134	0.122	0.187
Power Distance		$\beta = .142, *$		

Collectivism Individualism	$\beta = .376, ***$	$\beta = .313, ***$	$\beta = .312, ***$	$\beta = .402, ***$
Masculinity Femininity		$\beta = -.195, ***$	$\beta = -.222, ***$	$\beta = -.159, **$
Long term orientation	$\beta = .217, ***$			$\beta = -.142, **$
	F -17.5 df 4, 26.03, 133	F -12.5 df 4, 17.7, 120.3	F -11.5 df 4, 11.8, 88.4	F -17.7 df 4, 25.8, 130.5

* $p < .05$; ** $p < .01$; *** $p < .001$

H1 (Individualism – collectivism factor will have effect on coordination hands off) , was supported by the regression model. The model predicts the dependent variable significantly well i.e. coordination hands off ($p < .001$, $\beta = .376$). The adjusted R² is .196, which means 19.6 % variability if explained by the model. There was a significant correlation ($p < .001$, $\beta = .217$) with the culture dimension of Long term orientation too. The significance of R² is tested using F Ratio (F ratio=17.5 $p < .001$), which is statistical test of model ability to predict variable coordination hands off. The β value in Collectivism is positive and interpretation is that for every 1 unit increase in collectivism there will be 0.376 increase in coordination handoff. The β value in Long term orientation is positive and interpretation is that for every 1 unit increase in Long term orientation there will be 0.217 increase in coordination handoff.

H2 (High power distance leads to lower efficacy of communications amongst staff) is slightly supported by the regression model ($P < .05$). The regression equation predicts the dependent variable i.e. communication amongst staff off ($p < .05$, $\beta = .142$) with respect to culture dimension of Power distance. The adjusted R² is .134, which means 13.4 % variability if explained by the model. There was a significant correlation ($p < .001$, $\beta = .402$) with the culture dimension of Collectivism and moderate and negative correlation with Masculinity ($p < .01$, $\beta = -.59$). The significance of R² is tested using F Ratio (F ratio=12.5 $p < .001$), which is statistical test of model ability to predict variable communication hands-off. The reduction in Masculinity is predictor for increase in Communication amongst staff.

H3 (Long term orientation will influence the discharge of patient practice positively) is not supported, while there is moderate but negatively correlated. The regression model predict the dependent variable i.e. discharge of patient ($p < .01$, $\beta = -.142$ with long term orientation). The adjusted R² is .187, which means 18.4 % variability if explained by the model. There is a significant correlation ($p < .001$, $\beta = .313$) with the culture dimension of Collectivism and significant and negative correlation with Masculinity ($p < .001$, $\beta = -.195$). The significance of R² is tested using F Ratio (F ratio=17.7), which is statistical test of model ability to predict variable discharge of patients. The model predicts that there is a correlation with femininity and collectivism significantly and moderately with long term orientation

H4 Femininity factor will influence the Admitting Patient management practice positively and is strongly supported ($\beta = -.222, ***$). The β value is negative which indicates that increase in femininity will lead to increase in the dependent variable i.e. hospital management practice of admitting discharge. The adjusted R² is .122, which means 12.2 % variability is explained by the model. There is a significant correlation ($p < .001$, $\beta = .312$) with the culture dimension of Collectivism. The significance of R² is tested using F Ratio (F ratio=11.5), which is statistical test of model ability to predict variable admitting patients practice.

4. Discussion

Hypothesis 1 and 4 are strongly supported i.e. presence of high collectivism improves the coordination hands off and femininity has positive influence on the practice admitting patients. Surprising Power distance influence on communication amongst staff was slightly related. This culture dimensions' femininity and collectivism has positive influence on the practice of communication amongst staff. This is significant finding as it questions the construct of if Power distance is high then communication will be affected. Collectivism has been found to positive influence on all management practice. This is insight for management practitioners to evolve systems (specifically rewards) which propagate collectivism rather than individualism. Femininity dimension also found to have strong and positive correlation with three management practices, which

corroborated the prevailing construct of femininity is closer to the aspect of patient care. In the regression model administered, Power distance seems to have no significant correlation with any of the hospital management practice except for communication amongst staff. This is new insight in understanding management practices and contrary to earlier studies.

5. Conclusion

The study is the first of its kind in India hospital industry. This research has provided a reliable survey instrument to study hospital management practices. The study provides insight into influence of national culture factors on the hospital management practices. This would help academicians and practitioners in further studies and application of how to adopt of management practices in varying cultures.

6. Limitation and Future Research Avenues

The studies have several limitations. Since this has been conducted in one private hospital, caution should be exercise in generalization of results across hospital industry. The second limitation is the skew towards female respondents and that most of them are in staff category, hence in future researchers may further explore the construct and relationship of culture dimensions and management practices with cross sectional sample. The study does not investigate the relationship of demographic variables with culture dimensions. This is an area of opportunity

7. References

1. Bearden William O., R. Bruce Money, Jennifer L. Nevins (2006). *A measure of long term orientation: Development and Validation*. Journal of the Academy of Marketing Science.
2. Daniels, Michael A Gary J. Greguras. (2014). *Exploring the Nature of Power Distance: Implications for Micro- and Macro-Level Theories, Processes, and Outcomes*, Journal of Management. Vol. XX No. X, Month XXXX 1– 28
3. Dicksona Marcus W, Deanne N. Den Hartogb, Jacqueline K. Mitchelsona.(2003). *Research on leadership in a cross-cultural context: Making progress, and raising new questions*. The Leadership Quarterly 14, 729–768
4. Doney Patricia M, Joseph P. Cannon and Michael R. Mullen, (1998). *Understanding the Influence of National Culture on the Development of Trust*, *The Academy of Management Review*. 23(3), 601-620
5. Dorfman, P. W., & Howell, J. P. (1988). *Dimensions of national culture and effective leadership patterns: Hofstede revisited*. In E.G. McGoun (Ed.), *Advances in international comparative management* 3. Greenwich, CT: JAI Press. 127-149.
6. Earley, P.Christopher., Miriam Erez., (1997). *The transplanted Executive.*, Oxford University Press: New York.
7. Farh, J., Hackett, R. D., & Liang, J. (2007). *Individual-level cultural values as moderators of perceived organizational support-employee outcome relationships in China: Comparing the effects of power distance and traditionality*. *Academy of Management Journal*. 50: 715-729
8. Hofstede, G. (1993). *Cultural constraints in management theories*. *The Academy of Management Executive*. 7(1): 81-94.
9. Hofstede, G. & Michael Minkov (2010). *Long- versus short term orientation: new perspectives*. *Asia Pacific Business Review*, 16(4), 493-504,
10. Hwang, A., & Francesco, A. M. (2010). *The influence of individualism–collectivism and power distance on use of feedback channels and consequences for learning*. *Academy of Management Learning and Education*, 9: 243- 257.
11. Institute of Medicine. (2003). *Keeping Patients Safe: Transforming the Work Environment of Nurses*. International Monetary Fund World Economic Outlook (April - 2015)
12. Kirkman, B. L., Lowe, K. B., & Gibson, C. B. (2006). *A quarter century of culture's consequences: A review of empirical research incorporating Hofstede's cultural value framework*. *Journal of International Business Studies*, 37: 285-320
13. Kluckhohn, Clyde. (1954). *Culture and Behaviour*. Free Press: New York.
14. Lastovicka, John L., Lance A. Bettencourt, Renee Shaw Hughner, and Ronald J. Kuntze. (1999). "Lifestyle of the Tight and Frugal: Theory and Measurement." *Journal of Consumer Research* 26. 85-98.

15. McAlearney Ann Scheck,(2006). *Leadership Development in Healthcare: A Qualitative Study*. Journal of Organizational Behaviour. 27(7). Special Issue: Healthcare: The Problems are Organizational not Clinical. 967-982
16. McConnell K. John, Anna MarieChang b, ThomasM.Maddox c, DouglasR.Wholey d, Richard C. Lindroothe(2014). *An exploration of management practices in hospitals*. Healthcare 2121–129
17. Meeuwesen, L., Brink, A. van den, Hofstede, G. (2009). *Can dimensions of national culture predict cross-national differences in medical communication?*. Patient Education and Counseling: 75(1). 58-66
18. Neelankavil James P., Anil Mathur and Yong Zhang.(2001). *Determinants of Managerial Performance: A Cross-Cultural Comparison of the Perceptions of Middle-Level Managers in Four Countries*, Source. Journal of International Business Studies, 31(1), 121-140
19. Newman, Karen L. & Stanley D. Nollen. (1996). *Culture and Congruence: The Fit between Management Practice and National Culture*. Journal of International Business Studies, 27(4): 753-779.
20. Nunnally, J. (1967). *Psychometric theory*. McGraw-Hill: New York.
21. Peterson A Robert (1994). A meta-analysis of cronbach's coefficient alpha, Journal of Consumer Research. 21(2). 381-391.
22. Ranga Ramanujam and Denise M. Rousseau. (2006). *The Challenges Are Organizational Not Just Clinical*. Journal of Organizational Behaviour. 27(7). Special Issue: Healthcare: The Problems are Organizational not Clinical (Nov., 2006), pp. 811-827
23. Salas, E., Cooke, N. J., & Rosen, M. A. (2008). *On teams, teamwork, and team performance: Discoveries and developments*. Human Factors. 50. 540-547.
24. Spence, Janet. (1985). *Achievement American Style:the Rewards and Costs of Individualism*. American Psychologist, 40(12): 1285-
25. Smith, P. B., & Peterson, M. F. (2005). *Demographic effects on the use of vertical sources of guidance by managers in widely differing cultural contexts*. International Journal of Cross Cultural Management. 5(1): 5–27.
26. Taras Vas, Piers Steel, Bradley L. Kirkman. (2011). *Three decades of research on national culture in the workplace: Do the differences still make a difference?*. Organizational Dynamics 40. 189—198
27. Tayeb, Monir H. (1995). *Supervisory styles and cultural contexts: A comparative study*. International Business Review, 4(1): 75-89
28. Wager, John and Michael K. Moch. (1986). *Individualism-Collectivism: Concept and Measure*. Group & Organization Studies. 11 (3). 280-304.
29. Wagner John A III (1995). *Studies of Individualism-Collectivism: Effects on Cooperation in Groups*. The Academy of Management Journal. 38(1). 152-172

Annexure of questionnaire

Dorfman & Howell (1988)

Individualism (IND)

- i. Group welfare is more important than individual rewards
- ii. Group success is more important than individual success
- iii. Being accepted by the members of your work group is very important
- iv. Employees should only pursue their goals after considering the welfare of the group
- v. Managers should encourage group loyalty even if individuals goals suffer
- vi. Individuals may be expected to give up their goals in order to

Masculinity (MAS)

- i. Meetings are usually run more effectively when they are chaired by a man
- ii. It is more important for men to have a professional carrier than it is for a woman to have a professional carrier
- iii. Women do not value recognition and promotion in their work as much as men do
- iv. Women value working in friendly atmosphere more than men do
- v. Men usually solve problems with logical analysis, woman usually solve problems with intuition
- vi. Solving organizational problems usually requires the active forcible approach which is typical of men

- vii. It is preferable to have a man in high level position rather than a woman
- viii. There are some jobs in which a man can always do better than a woman
- ix. Women are more concerned with social aspects of their job than they are with getting ahead

Power Distance (PD)

- i. Managers should make most decisions without consulting subordinates
- ii. It is frequently necessary for a manager to use authority and power when dealing with subordinates
- iii. Managers should seldom ask for the opinions of employees
- iv. Managers should avoid off-the-job social contacts with employees
- v. Employees should not disagree with management decisions
- vi. managers should not delegate important tasks to employees

Long term Orientation

- i. Willingness to subordinate oneself for a purpose is normal
- ii. People should be perseverant toward long-term results
- iii. Traditions should be respected (-)
- iv. Social obligations should be respected regardless of cost (-)

Adapted from Management Practices McConnell Guide

Admitting the Patient

- i. There are processes to determine what types of information is to be collected on patients getting admitted to the unit
- ii. Generally the information does not vary between admitting teams and clinicians.
- iii. If there are pre -defined standardize assessment for admitting patient, they are adhered to.
- iv. There is mechanism to know if standardized assessments are being used or not.

Coordination Handsoff

- i. As a patient is moved to various sites e.g. between Cath Lab, ICU, CCU, Units,Wards etc. there are protocols/processes for transitions within the unit.
- ii. The staff is able to ensure that these protocols are being used consistently.
- iii. There coordinated information that is communicated from one unit to another.
- iv. During the actual handing over information's are documented.

Communication amongst Staff

- i. The nurses are able to provide input on clinical care to doctors.
- ii. The doctors are able to provide input on nursing care?
- iii. There is two-way communication happening amongst staff members for soliciting clinicians concern
- iv. There are mechanisms in place to know if a clinician in your unit had concerns or was worried about a patient safety issue

Discharge of Patient

- i. The staff know how to use pre-defined discharge assessments when the patient is discharged from your unit.

- ii. There is identified person responsible for the patient after they are discharged from the hospital and before they see their primary care physician.
- iii. There are systems are in place to help patients manage medications upon discharge.
- iv. There is mechanism to know if the primary care physician's office receives the information they need.

Table A: Sample characteristic

Row Labels	Business Support Operations	Doctors	Nurses	Paramedic & Technicians	(blank)	Count	Average of Age
Female	54	16	124	20	2	216	29.3
Male	37	14	14	11	1	77	31.6
Total	91	31	138	31	3	293	29.9

Table B : Mother Tongue

Mother Tongue	Count	Manipuri	1
English	3	Marathi	51
Gujarati	3	Nepali	6
Hindi	21	Oriya	3
Kannada	49	Punjabi	2
Khasi	1	Tamil	24
Konkani	4	telugu	6
Malayalam	106	Tulu	3
Urdu	3	Grand Total	286

Table C: Level of Seniority

Level	Count
Junior	36
Middle	48
senior	3
Staff	195
Grand Total	282

Regression Tables

Table D: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	1.655	.330		5.008	.000
	PD	-.009	.070	-.008	-.131	.896
	IC	.514	.076	.376	6.755	.000
	FM	-.049	.063	-.043	-.772	.441
	LTO	.214	.052	.217	4.079	.000

a. Dependent Variable: coord

Adjusted R2 -.196; F -17.5 df 4, 26.03, 133

Table E: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	2.839	.323		8.790	.000
	PD	.162	.069	.142	2.370	.018
	IC	.407	.074	.313	5.469	.000
	FM	-.209	.062	-.195	-3.376	.001
	LTO	-.026	.051	-.028	-.509	.611

a. Dependent Variable: comm

Adjusted R2 -.134; F -12.5 df 4, 17.7, 120.3

Table F: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	3.188	.279		11.412	.000
	PD	.062	.059	.063	1.050	.294

IC	.347	.064	.312	5.394	.000
FM	-.205	.054	-.222	-3.824	.000
LTO	-.046	.044	-.057	-1.038	.300

a. Dependent Variable: MA

Adjusted R2 -.122; F -11.5 df 4, 11.8, 88.4

Table G: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.686	.327		8.219	.000
1 PD	.098	.069	.082	1.420	.157
IC	.543	.075	.402	7.224	.000
FM	-.179	.063	-.159	-2.849	.005
LTO	-.139	.052	-.142	-2.680	.008

a. Dependent Variable: Disch

Adjusted R2 -.187; F -17.7 df 4, 25.8, 130.5

PROMOTION OF EXERCISE FOR THE ELDERLY

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ABSTRACT

This research is a documentary research. The purpose of this paper is to study research relating to promotion of exercise for the elderly in these following aspects; 1) Research method, types and period of exercise for promoting good health in the elderly, 2) The result that the elderly have gained from promotion of exercise. Data collection was from online research between September 1-5,2016. The research instrument is data record form which was created in accordance with research purposes. Quantitative data was analysed by using frequency and percentage. Qualitative data was analysed by content analysis and typology. The result showed that the research about promotion of good health in the elderly by exercising that was searched has 18 topics. 13 of them are experimental research and 5 of them are survey research. For participants, there were 1,691 elders participating which their age are 55-84 years old. The place used for research was mostly at Elderly Club. Types of exercise include exercise with elastic, walking, arm swinging, ballroom dancing, aerobics, and exercise with loincloth. The period of exercise promotion was 4-12 weeks, mostly 3 days per week, 30-55 minutes each day. The result that the elderly have gained from exercise promotion showed that they have stronger leg muscles, upper body of core muscle, arm and body muscles, better agility and balancing ability while moving, better muscle and joint flexibility than former times. Therefore, exercise promotion in the elderly should be promoted widely. The elderly who have health problems such as high blood pressure should have exercise constantly with simple way of exercise such as walking, arm swinging which are non-equipment kind of exercise that they can do both indoor and outdoor.

Keywords- Elderly , Exercise for Elderly , Promotion of Exercise

INTRODUCTION

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

The elderly are considered being a vulnerable group. Their bodies gradually deteriorate and have both physical and mental changes such as having dry skin, slower response to stimulus, degenerative eyesight, poor nervous system, delicate bones, poor muscle strength, and having degenerating organs. (2) From the nationwide elderly health survey (3), the result showed that many of the elderly have suffered from high blood pressure, insomnia, muscle and joint pain, frozen shoulder, dizziness, limb muscle weakness, and other diseases. Therefore, health promotion in the elderly is necessary. Exercise is one way to promote good

health in the elderly. Exercise can be done every day and it promotes physical fitness. If the elderly do proper exercise, their physical fitness will be better especially in moving and balancing ability which can prevent the elderly from falling (2). Exercising in the elderly can be classified into two types which are 1) Specific part of body exercise such as shoulder exercise in frozen shoulder person, back muscle exercise in person who have pain in back, and muscle around knees joint exercise in case of knee osteoarthritis. 2) General exercise which can promote good physical and mental health and have indirect result improving balancing skill that can prevent the elderly from falling and having broken bones. Exercise in the elderly should be an exercise that use gross motor such as jogging in case of not having knee Osteoarthritis, walking, aerobics, Tai chi (Chinese boxing dance), and exercising with long plastic stick. Exercise should be done constantly 20-30 minutes, at least three days per week and should be taken as a part of daily life. Ministry of public health has a health development plan for the elderly which its purpose is to make the elderly live their lives properly.(4) Promotion of exercise for the elderly is one of the activities that help improve elderly's health. Researcher was interested in studying data of research about exercise promotion in the elderly to accumulate knowledge and use it as basic knowledge for applying in further exercise promotion in the elderly in future.

RESEARCH PURPOSES

To study the research about promotion of exercise for the elderly in these following aspects;

1. Research method, types and period of exercise for promoting good health in elderly people
2. The result that the elderly have gained from promotion of exercise

LITERATURE & THEORY

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

1. Situation of the elderly in Thailand

Nowadays, Thailand is an ageing society which its population has increased rapidly since 2000 when the proportion of the elderly (60 years or older) reaches 10 percent of country population and the country will become "completed ageing society" when percentage of the elderly population reaches 20 in 2021. Moreover, the country is expected to be a super ageing society in less than 20 years when percentage of the elderly population is 28 percent of all country population. (5) Now that the elderly have some changes in both physiological and mental health resulting from degenerating systems in their bodies, promotion of exercise is necessary. One of the proper activities is exercise promotion for good health in the elderly.

2. Exercising is necessary to help strengthen good health and improve organ systems in the elderly. Exercising for good health is neither competitive nor stressful. In addition, exercising benefits the elderly. It helps strengthen muscles, improve endurance and balancing skill, slow down the deteriorating of organs and improve body systems which will improve sleeping condition in the elderly. There are several types of exercise that suit the elderly such as walking, Tai chi (Chinese boxing dance), and physical exercises.(6)

3. This research collected and analysed data from 18 researches about exercise promotion for elderly.(7-24)

METHODS

1. Research Method

This research is a documentary research which analysed the related work about promotion of exercise for the elderly publishing online and was searched between September 1-5, 2016. The samples were research reports and research articles which researcher searched from online system in 18 topics about "promotion of exercise for the elderly research"

2. Research Instrument

Instrument used in this research is record form which was created in accordance with research purposes. The research instruments include note taking issues as follows; 1) Research method, types and period of promotion of exercise for the elderly and 2) The result that the elderly have gained from exercise .

3. Construction of the instrument

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

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

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

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

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

4. Data collection

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

4.2 Read and analyse each topic carefully

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

5. Assessment and data analysis

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

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

RESULTS

1. Research method, types and period of exercise promoting for elderly people

1.1 Research method - There was 72.22 percent experimental research which compares the result of promotion of exercise for elderly in a variety of exercise types between experimental group and control group in 13 topics. Others 5 topics is 27.78 percent survey research. There were 1,691 elderly people participating in the research. Their ages are 55-84 years old. The places in which the data was collected were a public park where the elderly have exercised and their community

1.2 Types and period of exercise promoting for elderly people

1.2.1 From experimental research, there was the comparison between experimental group and control group before and after the experiment

A. *Types of exercise* - there were 15 types of promotion of exercise for the elderly (repeatedly counted in case that one research has several exercise types) as follows; 3 topics in exercising with elastic band, 3 topics in walking, and 2 topics each in arm swinging, ballroom dance and exercising with loincloth. In addition, there was 1 topic each for Tai Chi (Chinese boxing dance), exercising with table, and aerobics.

B. *Period of exercise promotion* - in 4-12 weeks, the elderly in sample group exercise 3 days a week, 30-55 minutes each day.

1.2.2 From survey research, there were 2 topics studying in exercising behavior in the elderly which were attitude toward exercise in the elderly, education and awareness about exercise in the elderly.

2. The result of exercise promotion for the elderly

2.1 Most of the activities were some kinds of stretching exercises such as arm swinging, stepping, exercising with elastic band. In addition, It was found that the elderly would rather exercise by doing chores, grandchild raising, short-distance walking than sitting in a car.

2.2 The elderly were aware of their health condition after having an exercise that they had better physiology, body movement and stronger muscles.

2.3 The elderly who have good attitude toward the exercise tend to do Tai Chi (Chinese boxing dance) more accurately than those who have lower attitude score.

2.4 The result that the elderly have acquired from promotion of exercise

2.4.1 The elderly who have good support from members of family to have an exercise such as arm swinging are more likely to swing their arms better than those who don't have support.

2.4.2 The elderly who have an exercise by swinging their arms have stronger and more endurable muscle, more elastic body and better balancing act than those who have an exercise by walking.

2.4.3 The elderly who have an exercise by stepping with table have better result in balancing skill, muscle and joint flexibility, moving ability and lung endurance than those in control group.

2.4.4 The elderly who have an exercise by aerobics with music have stronger limb muscle, better body flexibility, agility and balancing act than those in control group.

2.4.5 The elderly who have an exercise by ballroom dancing in several styles such as begin and waltz have better balancing skill than former times and than those in control group

2.4.6 The elderly who have an exercise by using elastic and ballroom dance have better agility, flexibility, muscular endurance and balancing act than those in control group while there was very little difference in body moving aspect between having an exercise with elastic band and with balancing rubber sheet. However, elastic band is cheaper than balancing rubber sheet.

2.4.7 The elderly who have an exercise by sitting and walking in 8-foot distance have stronger core muscle and better balancing act than those in control group.

2.4.8 The elderly who have an exercise with loincloth have stronger and better flexibility of limb muscle, back muscle and upper body muscle than former times.

2.4.9 The elderly who have an exercise by walking in public park have better moving and balancing skill than those who have an exercise by doing Tai Chi.

CONCLUSION AND FUTURE WORK

1. The result of research showed that the promotion of exercise for the elderly have mostly done in the elderly club. The elderly who are the members of the elderly club are often interested in activities and have better attitude toward exercise and personal health care than those who are not the members of the club. Therefore, there should be the promotion of exercise for the elderly who live in their house and have their cousins as a social supporter to encourage the elderly to exercise constantly. As Natedao J (25) had studied the factors which relate to health promotion behavior, it was found that social support is associated with health promotion behavior.

2. The result showed that the elderly who have an exercise by walking and arm swinging have good result in strength, muscular flexibility, moving skill and balancing skill which prevents them from falling that usually happens. The promotion of exercise for the elderly by proper walking is a good way to prevent falling incident in the elderly (26). There should be an easy way of exercise promotion which the elderly can do both indoor and outdoor such as walking, arm swinging which are non-equipment exercise and result in good outcome to the elderly's physical health.

3. The result showed that promotion of exercise for the elderly took 4-12 weeks for an experiment, spending 3 days a week and 30-55 minutes each day which conforms to exercise principle. If the elderly have an exercise constantly, in addition to acquiring limb muscle strength and better balancing skill, there is the

amelioration in the elderly who have hypertension (27, 28). Therefore, several types of exercise promotion for the elderly should be done constantly in both elderly people who don't have health problems and those who have health problems.

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REFERENCES

1. Ministry of social development and human security (2014), "Thailand elderly population: present and future", URL: https://www.m-society.go.th/article_attach/13225/17347.pdf.
2. Department of Health (2014), "Exercise in the elderly", URL: <http://library.thaihealth.or.th/>.
3. Ministry of Public Health (2006), "Research project to explore and study the health status of the elderly four regions of Thailand", Bangkok: Agricultural Cooperative of Thailand Printing.
4. Ministry of Public Health (2015), "Strategic targets and indicators 2015", URL: http://nonthaburi.moph.go.th/nont/file_upload/downloads/aging/strategic_aging2558.pdf
5. The Foundation of Thai Gerontology Research and Development Institute (2014), "Situation of The Thai Elderly", URL: <http://thaitgri.org>.
6. "The exercise for Seniors" (2016), URL: <http://sports.swu.ac.th>.
7. Chintana T, Maneerat T & Nirat I (2008), "Factors Associated to exercise behavior of elderly, elderly club, Charoenkrunk Pracharak hospital Bangkok", Journal of Health Education, Vol. 31, No. 110, Pp. 109-123.
8. Yupa J, Ubolwanna R & Thitirir T (2012), "The Effect of the Arm Swing Exercise with Family Participation Program on Exercise Behavior in Elderly with Essential Hypertension", J Nurs Sci. Vol. 30, No. 2 Pp. 46-57.
9. Puntip S, Rojane C & Khanokporn S (2016), "Impact of Square-Stepping Exercise on Elderly People's Physical Fitness", Thai Journal of Nursing Council, Vol. 31, No. 1, Pp. 5-18.
10. Anongnat S & others (2016), "Effect of Steady Walking Steps and Increasing Steps on Body Composition in Overweight Participants", Journal of Health Science, Vol. 25 No. 5, Pp. 831-839.
11. Amornrat N, Nongnuch O & Somboon T (2012), "Effects of Ponglang Music Aerobic Exercise on Physical Fitness and Blood Pressure among The Elderly with Hypertension", Journal of Nursing and Health Sciences, Vol. 6, No. 2, Pp. 62-74.
12. Kesinee S & Vijit K (2012), "Effect Of Arm Swing Exercise, Walking and Walking Exercise combined with Arm Swing Exercise on Health Related Physical Fitness of the Elderly Women", Journal of Sports Science and Health, Vol. 13, No. 1, Pp. 92 - 103.
13. Sakulrat A, Jaruwan S & Waraporn R (2011), "Effects of Health Promotion with Elastic Band Exercise on Static Balance and Functional Mobility in Elderly People" J Prapokklao Hosp Clin Med Educat Center, Vol. 28, No. 110-124, Pp. 66-75.
14. Somruthai P & Sasima P (2012), "Effects of elastic exercise program on balance in the elderly", The 9th National Conference Kasetsart University Kamphaeng Saen Campus, Pp. 2385-2393.
15. Mayuree T & others (2015), "Designing the Exercise Model for the Elderly in Kamphaeng Saen District", Kasetsart University Kamphaeng Saen Campus.
16. Vipaporn S & Suchada S (2007), "Health Promotion Behaviors of Elderly in the Community of Watprix Tumbon Phitsanuloke Province", Boromarajonani College of Nursing Buddhachinaraj, Url: http://www.smnc.ac.th/ucontent3/_fulltext20120508034929_4682/20120508034942_3957.pdf.

17. Tharin S & others (2014), "Factors Affecting Exercise Behaviors of the Elderly People in Bansuan Municipality, ChonBuri. The Public Health Journal of Burapha University", Vol.9, No.2, Pp.66-75.
18. Kamolporn J (2008), "Development of Exercise Promotion Model for Elderly in Katarawichai District Mahasarakham Province", Master of Health Science Thesis, Mahasarakham University.
19. Sarinya B (2012), "Effect of Core Muscles Training on Strenght and Balance of the Elderly", Master of Science Thesis, Srinakharin wirot University.
20. Natthachal A, Wipawee K & Sasithorn P (2005), "Perceived Health Status of the Elderly Practicing Tai Chi." Journal of Gerontology and Geriatric Medicine, Vol. 6, No. 3, Pp. 2-10.
21. Kornanong Y& others (2005), "Comparison Balance between the Tai Chi group and Walking group among Elderly", Journal of Gerontology and Geriatric Medicine. Vol. 6, No. 3, Pp. 11-16.
22. Patita W, Apiwan O & Rattikarn P (2015), "The Effectiveness of the Applied Folk Art Loincloth of the Elderly Exercise Program in Amphur Muang Sukhothai Province", Academic Journal Institute of Physical Education, Vol. 7, No. 3, Pp. 1-22.
23. Pruksasri P, Kongin W & Jittanoon P (2008), "The effects of social-dance exercise program on balance among the fall-risk elderly, Songkla Med J, Vol. 26, No. 4, Pp. 324-337.
24. Samai T, (2015), "The results of the exercise program with cloths. on health and physical fitness of the elderly, Maha Sarakham Province", Url: www.nachuakhospital.com.
25. Natedao J, (2014) . " Factors associated with health promoting behaviors among the elderly".Pathumthanee University, Vol. 6, No.3, Pp. 171-178.
26. Boyd R & Stevens J. A. (2009). "Falls and fear of falling: Burden, beliefs and behaviours", Age and Ageing, Vol. 38, No. 4, Pp.423-428.
27. Luckwirun C & others (2016) "Physical Activity and Dietary Self-Control on Blood Pressure and Serum Lipid Profile among Hypertensive Patients in Communitybased Care, Pathumthani, Thailand", J Health Res, Vol. 30, No. 4, Pp. 241-248.
28. Luckwirun C, Ponpun V & Khemika Y (2015), "Physical Activity and Dietary Self-Control on Blood Pressure and Serum Lipid Profile among Women with Hypertensive Patients in Communitybased Care, Pathumthani", Proceeding of 6th IASTAM International Conference, Berlin. German.