DRUG MISUSE AMONG URBAN MENOPAUSE POPULATION IN MUANG DISTRICT UBON RATCHATHANI PROVINCE THAILAND

Miss Ratchadaporn Chanthabutr

A Thesis Submitted in Partial Fulfillment of the Requirements

for the Degree of Master of Public Health Program in Public Health

College of Public Health Sciences

Chulalongkorn University

Academic Year 2013

การใช้ยาในทางที่ผิดในกลุ่มหญิงวัยหมดประจำเดือนในเขตเมือง อำเภอเมือง จังหวัดอุบลราชธานี ประเทศไทย

นางสาวรัชดาพร จันทบุตร

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาสาธารณสุขศาสตรมหาบัณฑิต
สาขาวิชาสาธารณสุขศาสตร์
วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย
ปีการศึกษา 2556

Thesis Title	DRUG MISUSE AMONG URBAN MENOPAUSE POPULATION IN MUANG DISTRICT UBON RATCHATHANI PROVINCE THAILAND
By	Miss Ratchadaporn Chanthabutr
Field of Study	Public Health
Thesis Advisor	Chitlada Areesantichai, Ph.D.

Accepted by the Faculty of College of Public Health Sciences, Chulalongkorn University in Partial Fulfillment of the Requirements for the Master's Degree

.....Dean of the College of Public Health Sciences

(Professor Surasak Taneepanichskul, M.D.)

THESIS COMMITTEE

.....Chairman

(Associate Professor Sathirakorn Pongpanich, Ph.D.)

.....Thesis Advisor

(Chitlada Areesantichai, Ph.D.)

.....External Examiner

(Nanta Auamkul, M.D., M.P.H.)

รัชดาพร จันทบุตร : การใช้ยาในทางที่ผิดในกลุ่มหญิงวัยหมดประจำเดือนในเขตเมือง อำเภอเมือง จังหวัดอุบลราชธานี ประเทศไทย. (DRUG MISUSE AMONG URBAN MENOPAUSE POPULATION IN MUANG DISTRICT UBON RATCHATHANI PROVINCE THAILAND) อ.ที่ปรึกษาวิทยานิพนธ์หลัก: ดร. จิตรลดา อารีย์สันติชัย, 136 หน้า.

ประชากรวัยหมดประจำเดือนเป็นวัยที่เริ่มมีความเสื่อมถอยของสภาพร่างกาย จิตใจ และการเปลี่ยนแปลงของฮอร์โมนเพศที่ลดระดับลง นำไปสู่ปัญหาด้านสุขภาพ โรคประจำตัว อาการของภาวะหมดประจำเดือนและการเจ็บป่วยได้ง่าย ซึ่งอาการเจ็บป่วยและภาวะฮอร์โมนเพศเปลี่ยนแปลงนั้นอาจเป็นความเสี่ยงให้ประชากรกลุ่มนี้มีการใช้ยาโดยไม่จำเป็น หรือใช้ยาเพื่อบรรเทาอาการที่เกิดขึ้นไม่ถูกต้องตามใบสั่งแพทย์ ซึ่งหากมีการใช้ไม่ถูกต้องอย่างต่อเนื่องอาจส่งผลอันตรายต่อร่างกาย จิตใจ และสังคมในอนาคตได้ ผู้วิจัยจึงสนใจที่จะศึกษาในหัวข้อ การใช้ยาในทางที่ผิดของประชากรวัยหมดประจำเดือน ซึ่งการศึกษาวิจัยที่ผ่านมาส่วนใหญ่มุ่งประเด็นไปที่โรคประจำตัวและมีการศึกษาเกี่ยวกับประเด็นการใช้ยาในทางที่ผิดโดยเฉพาะในกลุ่มนี้เพียงส่วนน้อย การวิจัยนี้เป็นการศึกษาวิจัยในช่วงเวลาใดช่วงเวลาหนึ่งแบบภาคตัดขวาง ศึกษาในกลุ่มประชากรวัยหมดประจำเดือนที่อาศัยในเขตอำเภอเมือง จังหวัดอุบลราชธานี ประเทศไทย มีการดำเนินการสุ่มสัมภาษณ์กลุ่มตัวอย่างโดยใช้แบบคัดกรองภาวะหมดประจำเดือนและสอบถามการวิจัย กลุ่มตัวอย่างทั้งหมด 411 ราย ผลการวิจัย พบว่า กลุ่มตัวอย่างมีการใช้ยาอย่างน้อย 1 ชนิด จำนวน 234 คน ร้อยละ 5.0ของกลุ่มตัวอย่างมีการใช้ยาในทางที่ผิด และร้อยละ 51.8มีการใช้ยาตามใบสั่งยา จากผลการวิจัยยังพบว่า กลุ่มตัวอย่างมีการใช้ยาทั้งหมด342 ตัวยา 21ตัวยามีการใช้ในทางที่ผิด คิดเป็นร้อยละ 6.1 ซึ่งมีกลุ่มยาที่ใช้ในทางที่ผิดอยู่ 3 กลุ่มคือ กลุ่มยาลดความดันโลหิต กลุ่มยาลดน้ำตาลในเลือด และยานอนหลับ ตามลำดับ จากผลการวิจัยยังพบว่า ข้อมูลส่วนบุคคล (ได้แก่ อายุ การศึกษา อาชีพ รายได้ต่อเดือน และสิทธิประกันสุขภาพ)สถานะสุขภาพ พฤติกรรมสุขภาพ (ได้แก่ การเคลื่อนไหวร่างกาย การออกกำลังกาย การรับประทานอาหารที่มีรสหวาน การรับประทานผักและผลไม้ การดื่มกาแฟ การสูบบุหรี่)แบบแผนการนอนหลับ การรับรู้สภาวะสุขภาพ (การมีโรคประจำตัว)และความรู้เกี่ยวกับการใช้ยาตามใบสั่งยาของกลุ่มตัวอย่างนั้น มีความสัมพันธ์กับการใช้ยาในทางที่ผิดอย่างมีนัยสำคัญ (p< 0.05) จากสรุปผลการวิจัยดังกล่าวพบว่าข้อมูลส่วนบุคคล พฤติกรรมสุขภาพ การรับรู้สภาวะสุขภาพ รวมถึงความรู้ในการใช้ยาตามใบสั่งยานั้นมีอิทธิพลต่อปัจจัยที่ทำให้เกิดการใช้ยาในทางที่ผิด ดังนั้นจึงควรมีการนำผลการวิจัยดังกล่าวไปเป็นประเด็นในการให้สุขศึกษาเพื่อสร้างความตระหนักในการใช้ยาของประชาชนทุกกลุ่มวัยในอนาคตต่อไป

สาขาวิชา สาธารณสุขศาสตร์ ลายมือชื่อนิสิต .....

ปีการศึกษา 2556 ลายมือชื่อ อ.ที่ปรึกษาวิทยานิพนธ์หลัก .....

5578955153 : MAJOR PUBLIC HEALTH
KEYWORDS: DRUG MISUSE / MENOPAUSE / THAILAND

RATCHADAPORN CHANTHABUTR: DRUG MISUSE AMONG URBAN MENOPAUSE POPULATION IN MUANG DISTRICT UBON RATCHATHANI PROVINCE THAILAND. ADVISOR: CHITLADA AREESANTICHAI, Ph.D., 136 pp.

The menopause population is the deterioration of physical, mental and sexual hormones changes due to health problems. In addition, body function can affect health status by increasing susceptibility of getting diseases/illnesses. Thus symptoms of illness and hormones changes will be have risk in the unnecessarily prescription use. Most of the previous studies focused on the disease and there was a few studies regarding to drug misuse. A Cross-sectional survey method was conducted on drug misuse among menopause population in Muang district, UbonRatchathani, Thailand. The data was collected by questionnaires interview in the multiple areas by simple random sampling, screening by the inclusion criteria before sampling and remaining subjects were 411 women in total. The study revealed the menopause woman had chance to obtained more than one type of drug/medicine and noticeable that the high number was in the end of menopause group, in 411 menopause women had who used drug/medicine at least 1 type was 234 menopause, 5.0% of them were drug misuse and 51.8% were prescription use. There were 342 drugs/medicines used totally, 21 drugs/medicines used (6.1%) were drug misuse, 3 types of drugs that had misuse were antihypertensive drug, hypoglycemic agent drug and sleeping pill. The socio-demographic (age, education, occupational, monthly income, family income, health security scheme), health status (BMI), health behaviors (physical activity, eating behavior (sweet, vegetable/fruit and coffee drinking) smoking and sleeping pattern), health seeking (personal disease) and the knowledge about drug prescription were significant association with drug misuse ($p< 0.05$). In conclusion, the study was found that the socio-demographics, health status, health behaviors, health seeking and knowledge about drug prescription were influencing factors for drug prescription use. Thus improvement of socio-demographics, health behaviors, health seeking are required to be the topic for health education plan to improve more awareness of people in terms of drug use practices in the future.

Field of Study: Public Health Student's Signature .....

Academic Year: 2013 Advisor's Signature .....

ACKNOWLEDGEMENTS

I would like to express my sincere appreciate to my thesis adviser, Dr.Chitlada Areesantichai for her invaluable help and constant encouragement throughout the course of this research. I am most grateful for her teaching and advice. I would not have achieved this far and this thesis would not have been completed without all the support that I have always received from her.

I am grateful for Associate Professor Sathirakorn Pongpanich, Ph.D as my thesis chairman and Ajarn Nanta Auamkul, M.D., M.P.H. the thesis examiner for their suggestions and all their help.

The thesis fund was supported by The 90th Anniversary of Chulalongkorn University Fund (Ratchadaphiseksomphot Endownment Fund) and Integrated Innovation Academic Center: IIAC Chulalongkorn University Centenary Academic Development Project (CU56-AS06).

In addition, I would like to express my thanks to Dr.Prapaporn Petchmak, Dr.Prawee Khamsrisuk and Mrs.Kanokrat Sutthiprapa for suggestions and all help. I also would like to take this opportunity to express my gratitude to the staff of provincial public health office Ubon Ratchathani, the 7th Regional Health Promoting Center, Ubon Ratchathani for their support and cooperation.

My thanks are extended to all my family, colleagues, my friends, MPH program in CPHS for their great friendship, helpful, love and encouragement throughout the period of this study.

CONTENTS

Page

THAI ABSTRACT iv
ENGLISH ABSTRACT v
ACKNOWLEDGEMENTS vi
CONTENTS vii
LIST OF TABLES ix
LIST OF FIGURES xii
LIST OF ABBREVIATIONS xiii
CHAPTER I 1
INTRODUCTION 1
1.1. Background and Rationale 1
1.2. Research Questions 3
1.3. Research Objective 4
1.4. Conceptual Framework 4
1.5. Operational Definitions 5
CHAPTER II 7
LITERATURE REVIEW 7
2.1. The concept of drug misuse 7
2.2. The definition of menopause 10
2.3. Theories concept 15
2.4. Measurement tools 22
2.5. Related researches 25
CHAPTER III 29
RESEARCH METHODOLOGY 29
3.1. Research design 29
3.2. Study area 29
3.3. Study population 29
3.4. Sample size calculation 29

Page

3.5. Sampling technique 30
3.6. Measurement Tools 31
3.7. Validity and Reliability test 35
3.8. Data Collection 36
3.9. Data Analysis 37
3.10. Ethical Consideration 37
CHAPTER IV 38
RESULT 38
4.1 Socio-demographic characteristics 38
4.2 Health status, health behaviors and health seeking 41
4.3 Drug/medicine using 53
4.4 Knowledge about drug prescription 57
4.5 Drug/medicine use pattern 58
CHAPTER V 74
DISCUSSION, CONCLUSION AND RECCOMENDATION 74
5.1 Discussion 74
5.2 Benefits of the Study 83
5.3 Limitation of the study 83
5.4 Recommendation 83
REFERENCES 85
APPENDICES 90
APPENDIC A Questionnaire (English Version) 90
APPENDIC B Questionnaire (Thai Version) 105
VITA 119

LIST OF TABLES

Page

Table 1 Theory at a Glance: A Guide for Health Promotion Practice 17
Table 2 The number of population in age 45-59 years 30
Table 3 Socio-demographic characteristics (n=411) 39
Table 4 Average of health status 42
Table 5 Health status classify by age group 42
Table 6 Health behavior classify by age group (Physical activity) 43
Table 7 Health behavior classify by age group (Sleep pattern) 44
Table 8 Health behavior classify by age group (Eating behavior) 45
Table 9 Alcohol drinking classify by age group (n=411) 47
Table 10 Alcohol drinking classify by the drinking time 48
Table 11 Type of alcohol drinking last month 48
Table 12 Frequency of alcohol drinking last month 49
Table 13 Amount of alcohol drinking last month (Gram of ethanol) 49
Table 14 Type of alcohol drinking last week 50
Table 15 Frequency of alcohol drinking last week 50
Table 16 Amount of alcohol drinking last week (Gram of ethanol) 51
Table 17 Overview of the level on health behavior promotion of the menopause 51
Table 18 Health seeking classify by age group 52
Table 19 Drug using resource and information receiving 53
Table 20 Drug use practices 55
Table 21 The level of knowledge about drug prescription (n=292) 58
Table 22 Overview of type of drug use 59

Table 23 Number of menopause women that were drug misuse and prescription use (n=411) 60
Table 24 Number of type of drug/medicine using per person classify by age group (n=411) 60
Table 25 Number of type of drug/medicine that were misuse and prescription use classify by age group (n=342) 61
Table 26 Drug misuse in each type of drug/medicine (n=21) 62
Table 27 Prescription use in each type of drug/medicine (n=321) 63
Table 28 The health behavior promotion level among drug misuse group (n=21) 63
Table 29 The number of the symptoms and diseases among drug misuse group (n=21) 64
Table 30 The sleeping pattern among drug misuse group and sleeping pill using (n=15) 64
Table 31 The number of menopause who had hypertension and anti-hypertensive drug using (n=5) 65
Table 32 The number of menopause who had diabetes mellitus and hypoglycemic drug using (n=16) 65
Table 33 Association of drug misuse with socio-demographic characteristics (n=234) 66
Table 34 Association of drug misuse with health status (n=234) 68
Table 35 Association of drug misuse with health behavior (n=234) 69
Table 36 Association of drug misuse with health seeking (n=234) 71
Table 37 Association of 21 menopauses that were drug misuse and had disease with the types of drug misuse 71
Table 38 Association of health behavior level with the types of drug misuse 72

Table 39 Association of drug misuse with knowledge about drug prescription (n=170) 73

LIST OF FIGURES

Page

Figure 1: Conceptual Framework of the present study 4

Figure 2 : Conceptual Model of Health believe model 18

Figure 3 : Three-way relationships in social learning theory 22

LIST OF ABBREVIATIONS

WHO	World Health Organization
BMI	Body Mass Index
DOH	Department of Health
HRT	Hormone Replacement Therapy
FSH	Follicle-stimulating Hormone
PMS	Premenstrual Syndrome
ERT	Estrogen Replacement Therapy
HBM	Health Belief Model
SLT	Social Learning Theory

CHAPTER I

INTRODUCTION

1.1. Background and Rationale

In 1990, there were 467 million menopause women in the world, 25 million women pass menopause each years and estimate that by 2030 world population of menopause women will increase to 1.2 billion, with 47 million new entrants each year. The number of menopause population in Thailand increase to 16 million in 2009 or about 26 percent of total population (1). The menopause population is the deterioration of physical, mental and sexual hormones changes due to health problems (1). In addition, bodily function can effect health status by increasing susceptibility of getting diseases/illnesses such as obesity, diabetes, hormone deficiency, decrease in bone mass density, hypertension, heart disease, cancer, stress, insomnia, sexuality, occupational health and genetic health behaviors problem(Nutrition, Physical inactivity, Mental health), also included are environmental problems (1).The majority of common risks are physical inactivity and obesity 53.6 and 44.3 percent, hypertension and high cholesterol 36.6 and 31.4 percent, low calcium intake 30.1 percent and smoking 28.7 percent. The most common symptom and problem were hot flashes, insomnia 51.4, 45.7 percent respectively and irritability 42.2 percent (2). The study of epidemiological of risk factors and symptoms related with menopause in 10,514 Spanish women aged 45-65 years found that women in menopause at risk for menopausal symptoms were osteoporosis 67.6 percent and cardiovascular 74.8 percent, respectively. The study of

menopause and andropause's health behavior in seven provinces of north-eastern, Thailand found that most symptoms occur in hormone levels changes period were muscle-joint pain 25.7 percent, hot flash 16.5 percent and insomnia 15.1 percent and health care behavior found that 63.6 percent of insomnia used sleep pill (3).

In study of the relationship of the factors that influence health behaviors in menopausal people in Thailand with congenital disease, necessary drug used, current illness, sexual hormone deficiency and stress are associated with menopause health behavior (1). In addition, it was found that the populations between the ages of 15-60 years took medication without prescriptions to relieve symptoms for various illnesses by purchasing from pharmacies/drug stores and other sources. There was a number of medication users who were not aware of the restrictions and risk of medication used without prescription (4). According to the finding of a study on prescription used behaviors in Thailand and the services of pharmacy, people would go to the local pharmacy for minor illness without having a prescription from their physician especially in rural areas where they were no restrictions (5). Medication advertisement was done via radio, television and it was easy to sell medicine in the rural area and communities. These factors made people to have chances of taking unnecessary or overdose medicine (6). There were 8,371 victims taking poor quality and expired medicine due to the unlicensed health products and pharmacies, expired and low quality medicine based on consumer complaints to Consumer Protection Board and The Food and Drug Administration in 2006 (7). In 2006, the Ministry of Public Health received reports on the number of illness people due to the use of drugs without prescription and illegal pharmacies. The ministry had been monitoring the effects of drug on1,760 people from the report of drug intolerance,

overdose of sleeping pills, antibiotics, narcotics, analgesic drugs and anti-allergy drugs in the patient (8).

The researcher chosen area for this study was done in Ubon Ratchathani Province that's located in the North-east of Thailand which has a population of over 1.8million, a population in age 45-59 years were 318,787 people, population in aged 45-59 years old that inhabitants live in Muang district were 43,049people and 45-59 years old women were 14,492 people live in the study area representing a percentage of 12.11(9).

Without guidance and advices from the doctor or pharmacist, inappropriate drug using may occur especially in elderly who have a physical deterioration, symptoms of illness and hormones changes and possibly affect the physical, mental of the users as well introduce the social problem in the future. As there were limited research among menopause population, the researcher were interested to study on drug misuse in menopause population and focused on the personal diseases. The objective of this study was to evaluate the drug misuse pattern among menopause population. According to the data mentioned above, menopause population is likely to be increased. The researcher hope that the result of this study could be a based line information for local health professionals to assess the current situation and able to improve services and support to these population especially menopause clinic in the study area as well as build the awareness on drug/medicine used and prevent consequences regarding drug /medicine misuse.

1.2. Research Questions

What are the drug misuses among menopause population?

1.3. Research Objective

To evaluate the drug misuse pattern among menopause population.

1.4. Conceptual Framework

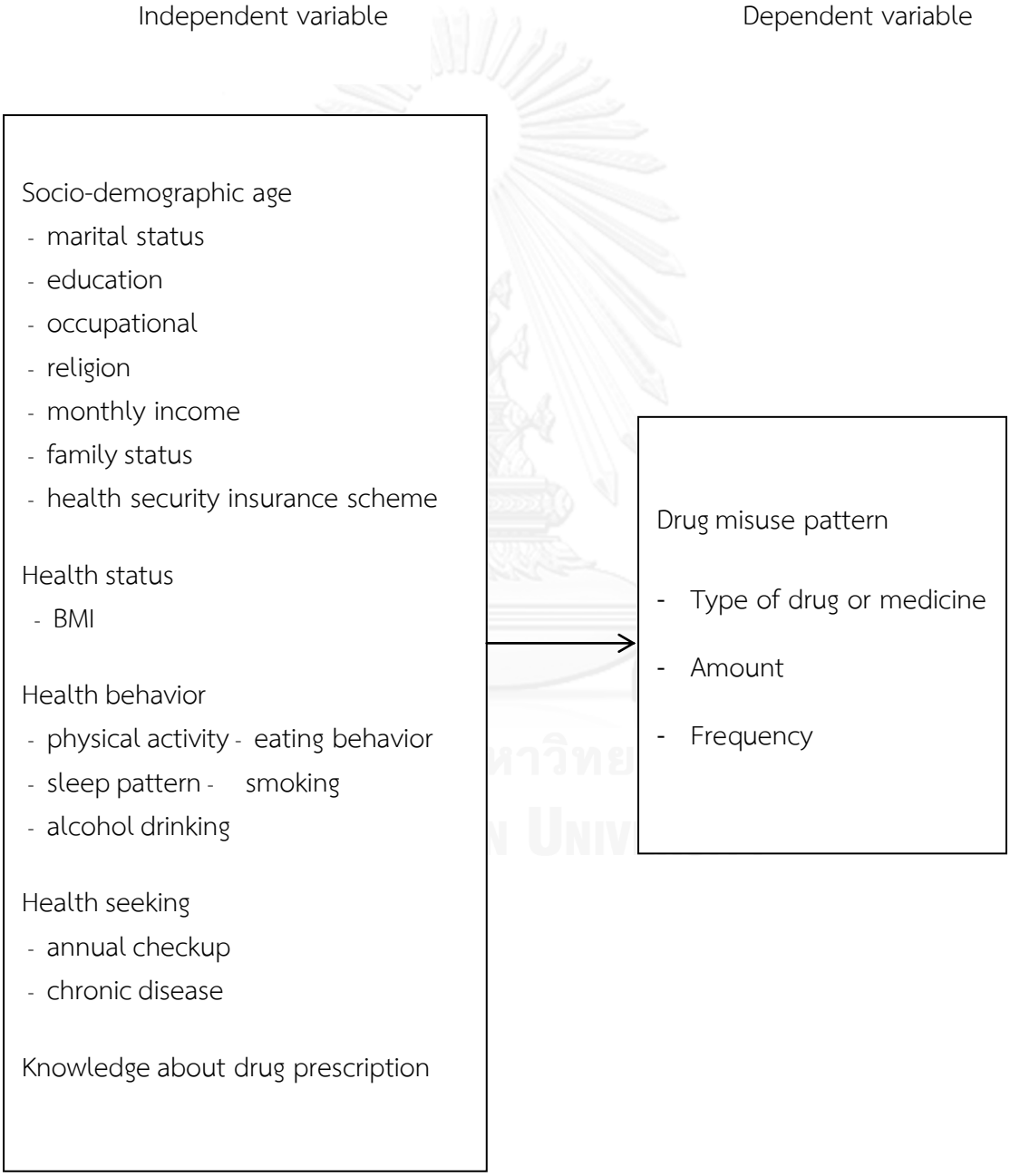

Figure 1: Conceptual Framework of the present study

1.5. Operational Definitions

Menopause: the women in 45-59 years who are natural amenorrhea more than 12 months and assessment by menopause screening form which is early detect of menopause symptoms and the screening form are usually administered to the women who are in the age of 45-59 years that may have a risk for certain diseases or conditions at least 1 score.

Drug misuse: is a prescription pattern use of a drug or medicine included Thai-traditional medicine in which the consumers use the drug in type, amounts and frequency with method neither approves nor supervises by medical professional for treatment included drug use overdose, under dose, use drug/medicine without the prescription, drug use without medical professional consultation, drug use not on time or continue drug use without instruction.

Drug/medicine use practices: is the type of drug used, and how to practice during drug using that is show by behavior that can be observed and measured in menopause population.

Knowledge of drug use: is the fact, information, regulation, detail, type, properties, benefits and the importance of the drug to body and mental health with treatment of disease, and the dangers of drug use included how to use the medicine properly.

BMI (Body mass index): is the factors that are standard to assess the obesity-thin in adult by formula calculate from weight (kg) and height (m) as follow

$$BMI = \frac{\text{Weight (kg)}}{(\text{Height (m)})^2}$$

Assessment criteria (1).

BMI less than18.5 kg/m^2	Thin
BMIbetween18.5 – 22.9 kg/m^2	Normal
BMIbetween23– 24.9 kg/m^2	Overweight level 1
BMI between 25-29.9 kg/m^2	Overweight level 2
BMI more than 30 kg/m^2	Overweight level 3

Physical activity: is the physical movement of the body organs to ensure better health and physical fitness. In this study included the daily work force and the exercise until heart beating and sweating, the frequency at least 3 times per week and 30 minutes per time.

Eating behavior: is the practice that shows in food consumption for healthy food choices, how to eat and hygiene of food. In this study specific to the nutrient needed that appropriated with the menopause such as calcium.

CHAPTER II

LITERATURE REVIEW

This research studied was about drug misuse among urban menopause population in Ubon Ratchathani province, Thailand. Theories and related researches were reviewed and presented as follows.

2.1 The concept of drug misuse

2.1.1 Definition of drug misuse

2.1.2 Prescription pattern

2.2 The definition of menopause

2.3 Theories concept

2.3.1 Health believe model theory

2.3.2 Self-care theory

2.3.2 Social learning theory

2.4 Measurement tools

2.4.1 Screening form

2.4.2 Tools

2.5 Related researches

2.1. The concept of drug misuse

2.1.1 Definition of drug misuse

Drug misuse is a prescription pattern use of a drug or medicine included Thai-traditional medicine in which the consumers use the drug in type, amounts and frequency or with method neither approves nor supervises by medical professional

for treatment included drug use overdose, buy and use drug/medicine without the prescription, drug use according to their symptoms without medical professional consultation, drug use not on time or continuous drug use without instruction. There is a term used commonly for prescription medications with clinical efficacy but abuse potential and known adverse effects linked to improper use, such as psychiatric medications with sedative, anxiolytic, analgesic, or stimulant properties (10). Prescription misuse has not been consistent and incoherently defined based on drug prescription significance, the uses that occur without a prescription, deliberate use to achieve inebriation effects, route of administration, co-ingestion with alcohol, and the presence or absence of abuse or dependence symptoms. Lenience relates to the pharmacological property of constituent in which prolong use leads to a difference in the central nervous system, meaning that more of the constituent is needed in order to produce yearning effects. Ending or lessening the use of this substance would cause withdrawal symptoms to occur (10).

2.1.2 Prescription pattern

Prescription pattern is an instruction written by a medical practitioner that authorizes a patient to be issued with a medicine or treatment. Prescription patterns have been studied in a variety of settings. The experience accumulated over time has originated a standard assessment methodology, well-known and applied worldwide (11). Prescription patterns depend on the professional qualifications of the prescribers, the quality of their training, in-service training and supervision activities, ingrained traditions, market incentives, patient preferences, regulatory provisions, drug supply constraints, the availability of treatment guidelines. These factors evolve during a protracted crisis, not all in the same direction, nor uniformly. A patchwork of

findings is common. The contraction of commercial outlets outside large towns may reduce the availability of unneeded drugs. Their replacement by standard kits induces a measure of rationing. An ensuing drop in the misuse of antibiotics and injections, although negatively perceived by prescribers and patients alike, represents a tangible improvement. On the other hand, the commoditization of health care encourages the prescription of unneeded, even harmful drugs. Against the general decline of standards, health services supported or directly provided by some capable NGOs may receive a boost in terms of in-service training, supply and supervision, which translates into improved prescription practice. Such as improvements, if due only to external resources, capacity and pressure may be short-lived. Standard treatment guidelines may have been formulated and taken roots in daily practice before the crisis. When this is the case, collaborative NGOs may adopt them. Other health service providers, bound to their own international standards, prefer to ignore national guidelines. Over time, health care fragments. Not many battered health sectors have invested in formulating standard treatment guidelines, or in updating old ones, during a crisis. Precious opportunities to disseminate sound professional practice are wasted. Disease-control programs and international agencies are left in charge of filling this gap. As they are unlikely to reach a measure of consensus, guidelines multiply (11).

Drug/medicine use practices is the type of drug used, and how to behave during drug using that is show by behavior that can be observed and measured in menopause population. Knowledge of drug use is the fact, information, regulation, detail, type, properties, benefits and the importance of the drug to body and mental health with treatment of disease, and the dangers of drug use included how to use

the medicine properly. Drug or medicine can be use to relieve the symptoms, treatment, prevention health from illness. Mostly of people decided by themselves to use drug or medicine in time and need to get instruction to know about the types, name of drugs, how to read the label, production date, expiration date, limitations and side effects of drug misuse and understanding to be careful in the selection of suitable drugs for the illness. In menopause population, should create awareness in the prescription drugs using only due to the potential for drug misuse by the ignorant and cause harm to the body.

2.2. The definition of menopause

Menopause is the women in 45-59 years who are natural amenorrhea more than 12 months and assessment by menopause screening form which is early detection of menopause symptoms and the screening form are usually administered to the women who are in age 45-59 years that may have a risk for certain diseases or conditions at least 1 score (1), by WHO definition (1999) is the perpetual ending of menstruation resulting from loss of ovarian follicular activity, occurred after 12 successive months of amenorrhea. While technically it refers to the final period, it is not a sudden event, but a steady process. Menopause is not a disease that can be cured, but a natural life-stage transition. However, women have to make important decisions about "treatment," including the use of hormone replacement therapy (HRT). Many women have irregular periods and other problems of "pre-menopause" for years. It is not easy to predict when menopause begins, although doctors agree it is complete when a woman has not had a period for a year. Eight out of every 100 women stop menstruating before the age of 40. At the other end of the spectrum, five out of every 100 continue to have periods until they are almost 60. The average

age of menopause is 51.There is no mathematical formula to figure out when the ovaries will begin to scale back either, but a woman can get a general idea based on her family history, body type, and lifestyle. Women who began menstruating early will not necessarily stop having periods early as well. It is true that a woman will likely enter menopause at about the same age as her mother. Menopause may occur later than average among smokers.

Causes and symptoms

Once a woman enter young adult hood, each month her body releases one of the more than 400,000 eggs that are stored in her ovaries, and the lining of the womb (uterus) thickens in anticipation of receiving a fertilized egg. If the egg is not fertilized, progesterone levels drop and the uterine lining sheds and bleeds. By the time a woman reaches her late 30s or 40s, her ovaries begin to shut down, producing less estrogen and progesterone and releasing eggs less often. The steady decline of estrogen causes a wide variety of changes in tissues that respond to estrogen including the vagina, vulva, uterus, bladder, urethra, breasts, bones, heart, blood vessels, brain, skin, hair, and mucous membranes. Over a period of time, the lack of estrogen can make a woman more susceptible to osteoporosis (which can begin as early as 40 for some women) and heart disease. As the level of hormones varies, the menstrual cycle begins to alter. Some women may have longer periods with heavy flow followed by shorter cycles and barely any bleeding. Others will begin to miss periods completely. During this time, a woman also becomes less able to get pregnant. The most common symptom of menopause is a change in the menstrual cycle, but there are a variety of other signs as well, including:

- Hot flashes

- Sweat at night time
- Short memory, uninterested surrounding
- Poor sleep, insomnia
- Fatigue
- Mood swings, stress, anxiety
- Gum or tooth problems
- Muscle/joint pain
- Dry skin/hair, brittle nails
- Urinary problem
- Sexual problem
- Low self-confidence and afraid to stay in the public

Diagnosis

The clearest indication of menopause is the absence of a period for one year. It is also possible to diagnose menopause by testing hormone levels. One important test measures the levels of follicle-stimulating hormone (FSH), which steadily increases as a woman ages. However, as a woman first enters menopause, her hormones often fluctuate wildly from day to day. For example, if a woman's estrogen levels are high and progesterone is low, she may have mood swings, irritability, and other symptoms similar to premenstrual syndrome (PMS). As hormone levels shift and estrogen level falls, hot flashes occur. Because of these fluctuations, a normal hormone level when the blood is tested may not necessarily mean the levels were normal the day before or will be the day after. If it has been at least three months since a woman's last period, an FSH test might be more helpful in determining whether menopause has occurred. Most doctors believe that the FSH

test alone cannot be used as proof that a woman has entered early menopause. A better measure of menopause is a test that checks the levels of estrogen, progesterone, testosterone and other hormones at mid-cycle, in addition to FSH.

Treatment

When a woman enters menopause, her levels of estrogen drop and symptoms (such as hot flashes and vaginal dryness) begin. Hormone replacement therapy can treat these symptoms by boosting the estrogen levels enough to suppress symptoms while also providing protection against heart disease and osteoporosis, which causes the bones to weaken. Experts disagree on whether HRT increases or decreases the risk of developing breast cancer. A Harvard study concluded that short-term use of hormones carries little risk, while HRT used for more than five years among women 55 and over seems to increase the risk of breast cancer.

There are two types of hormone treatments: hormone replacement therapy (HRT) and estrogen replacement therapy (ERT). HRT is the administration of estrogen and progesterone; ERT is the administration of estrogen alone. Only women who have had a hysterectomy (removal of the uterus) can take estrogen alone, since taking this "unopposed" estrogen can cause uterine cancer. The combination of progesterone and estrogen in HRT eliminates the risk of uterine cancer. Most physicians do not recommend HRT until a woman's periods have stopped completely for one year. This is because women in early menopause who still have an occasional period are still producing estrogen; HRT would then provide far too much estrogen. Most doctors believe that every woman (except those with certain cancers) should take hormones as they approach menopause because of the

protection against heart disease, osteoporosis, and uterine cancer and the relatively low risk of breast cancer. Heart disease and osteoporosis are two of the leading causes of disability and death among post-menopausal women. Critics say the benefit of taking hormonal drugs to ease symptoms is not worth the risk of breast cancer. Since menopause is not a disease, many argue that women should not take hormones to cure what is actually a natural process of aging. Advocates of HRT contend that the purpose of taking hormones is not to "treat" menopause but to prevent the development of other diseases.

There are risks with HRT and there are risks without it. In order to decide whether to take HRT, a woman should balance her risk of getting breast cancer against her risk of getting heart disease, and decide how bad her menopause symptoms are. Most doctors agree that short-term use of estrogen for those women with symptoms of hot flashes or night sweats is a sensible choice as long as they do not have a history of breast cancer. For a woman who has no family history of cancer and a high risk of dying from heart disease, for example, the low risk of cancer might be worth the protective benefit of avoiding heart disease. Certainly, for Caucasian women aged 50 to 94, the risk of dying from heart disease is far greater than the risk of dying of breast cancer. Women are poor candidates for hormone replacement therapy if they have:

- had breast or endometrial cancer
- a close relative (mother, sister, grandmother) who died of breast cancer or have two relatives who developed breast cancer before age 40
- had endometrial cancer
- had gallbladder or liver disease

- blood clots or phlebitis

Some women with liver or gallbladder disease, or who have clotting problems, may be able to go on HRT if they use a patch to administer the hormones through the skin, bypassing the liver.

Women would make a good candidate for HRT if they:

- prevent osteoporosis
- have had their ovaries removed
- prevent heart disease
- have significant symptoms

Taking hormones can almost immediately eliminate hot flashes, vaginal dryness, urinary incontinence (depending on the cause), insomnia, moodiness, memory problems, heavy irregular periods, and concentration problems. Side effects of treatment include bloating, breakthrough bleeding, headaches, vaginal discharge, fluid retention, swollen breasts, or nausea. Up to 20% of women who try hormone replacement stop within nine months because of these side effects. However, some side effects can be lessened or prevented by changing the HRT regimen.

2.3. Theories concept

2.3.1 Health believe model theory

Rosenstoch, Strecher and Baker explain that “The health belief model (HBM) is a psychological model that attempts to explain and predict health behaviors by focusing on the attitudes and beliefs of individuals. The HBM was developed in the 1950s as part of an effort by social psychologists in the United States Public Health Service to explain the lack of public participation in health screening and prevention programs (e.g., a free and conveniently located tuberculosis screening project). Since

then, the HBM has been adapted to explore a variety of long- and short-term health behaviors, including sexual risk behaviors and the transmission of HIV/AIDS." The key factors of the health believe models are as below (12):

Perceived Threat: Consists of two parts are the perceive severity and perceive susceptibility of health conditions.

Perceived Susceptibility: One's personal are acceptance and awareness the health risks of the problems.

Perceived Severity: Feelings about the seriousness and concern of contracting an illness or in leaving it untreated. Including an evaluation of the impact of medical and clinical, and social impact that is possible.

Perceived Benefits: The believable effectiveness of strategies was designed to decrease the illness treatment.

Perceived Barriers: The negative impact that may be caused by the particular health care included physical, mental and financial needs.

Cues to Action: One of the events (Such as physical health symptoms) or the environment (E.g., media publicity) that motivate people to take action. Disciplinary action as the HBM has not been studied systematically.

Other Variables: Demographic and psychosocial variables and structural diversity that affected an individual's acceptance which obliquely influence health-associated behaviors.

Self-Efficacy: The belief in the ability to successfully perform the behavior demanded to originate the desired results.

The health believes model is spelled out in terms of creating a perceived threat and net benefits the weak recognition of the perceived severity, perceived benefits and

perceived barriers. These concepts have been proposed to account for the public “Ready To Act”. Concept refers to a process to enable and encourage the behavior and blatant HBM is the most recent addition in self-efficacy or the confidence in their ability to succeed in the action. This concept was added by Rosenstoch and others in 1988 to help the HBM better fit the challenges of behavior change unhealthy habits such as sedentary, smoking or over eating (12).

Table 1 Theory at a Glance: A Guide for Health Promotion Practice

Concept	Definition	Application
Perceived Susceptibility	One's personal are acceptance and awareness the health risks of the problems.	The population (s) that has level of risk; the risk characteristics depend on persons or behavior; acceptance responsiveness if too low.
Perceived Severity	Feelings about the seriousness and concern of contracting an illness or in leaving it untreated.	Specify consequence of the risk and the conditions
Perceived Benefits	The believable of effectiveness of strategies that designed to decrease the	Describe action to take; how, where, when; clarify the positive effect to be expect.

	illness treatment.	
Perceived Barriers	The negative impact that may be caused by the particular health care included physical, mental and financial needs.	Identify and reduce barriers to approved incentives and helpful.
Cues to Action	One of the events, the environment that motivate people to take action.	Provide how-to information, promoting awareness, and reminder.
Self-Efficacy	Confidence in one's ability to take action	Provide training, guidance in performing action.

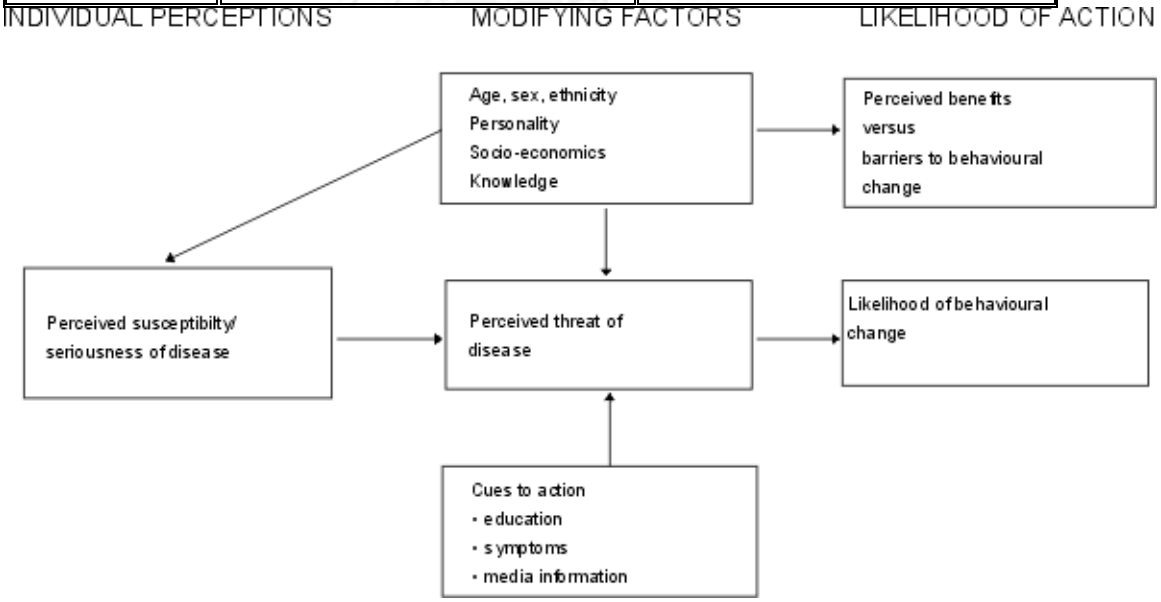

Figure 2 : Conceptual Model of Health believe model

Source: Glanz et al, 2002 (13), p. 52 Favorite Methods Surveys

The impact of health research HBM has been used to explore a variety of health behaviors in diverse populations. The Health Belief Model has been applied

to a wide range of health and population issues. Three broad areas can be identified. Conner & Norman, 1996 (14): 1) behavioral health prevention includes health promotion (E.g., exercise), health risks (such as smoking), health behavior as well as vaccines and contraceptives. 2) Illness role behavior, which refers to the following formula doctors recommend routine diagnostic professional illness. 3) The clinic which includes the doctor visit for a variety of reason.

In 1974, Becker describe that "The Health Belief Model is one of the most widely used conceptual frameworks for understanding health behavior. The HBM is based on the understanding that a person will take a health-related action (i.e., use condoms). The Health Belief Model is a framework for motivating people to take positive health actions that uses the desire to avoid a negative health consequence as the prime motivation." For example, HIV negative is effects on health and the desire to avoid HIV infection can be used to encourage people to have sex is to practice safe sex. In addition, the threat of a heart attack can be used to encourage people with high blood pressure, exercise more often. It is important to note that to avoid a negative health is a key component of the HBM, for example, a person may increase exercise to looking good and feel better. That the sample does not fit the model because people are not inspired by the results negative of health even the health of the exercise is the same as the people who want to avoid heart attacks. The HBM is a powerful framework that will use when developing health education strategies. There were 46 major research studies of HBM protection programs published between 1974 and 1984. The HBM focuses on a variety of health effects from the meta-analysis to provide empirical support for the effectiveness of the HBM (15).

2.3.2 Self-care theory

The self-care concept is an idea that many theorists and researchers have addressed the Self-care's definition as follows

Levin (1976) (11)defined the self-care as a process in which an individual can do different active ities to encourage his/her good health, health prevention and diagnostic including selecting its basic care by himself/herself.

Norris (1979) addressed that the self-care means a process in which an individual and his/her family initiates responsibilities to take care their health effectively.

Pender (1987), addressed that the self-care is varieties of activities that an individual initiate and practices for the different advantages in order to maintain or improve their good health and life conditions.

Orem (1991), defined the self-care as several activities that an individual initiates by himself to maintain his life, good health and well-being. The self-care is natural way of life and behaviors learned from the practices, traditions and cultures of different group of people.

The Orem's self-care concept believes that "Human being" is the person who has learning and making decision ability and capability in doing the self-care activities as the following goals.

1. Maintaining life process and supporting the regular function of life style.
2. Maintaining adequate development growth and majority.
3. Controlling, protecting and treating diseases of diverse danger.
4. Adjusting properly to health disability.

The self-care is a learning behavior that has developed from the birth until maturity. In the maturity period, individuals have self-care ability and in such

conditions. Individuals can have the full self-care ability on basis of 3 factors which consist of the knowledge, comprehension on self-care and the individual's perception on their ability, the self-care operation skill. However, these abilities will decrease if a certain human's organ function in appropriately or being destroyed, or there is a limit of knowledge, experience and/or a lack of stimulus.

Self-care theory behavior in menopause population the major health risk from deterioration of physical as seen in chronic disease, sexuality, mental health, behavioral and environmental due to health problems. Helping menopause and andropause population to take care of themselves for healthy, if indicated, can be accomplished on an individual or group basis.

Total health risks of middle-aged adult are composed of group risk such as age, sex, race and personality. Pre-critical secondary prevention includes periodic selective screening for early detection of disease before it becomes clinically apparent. Chronic conditions found in the middle-aged adult included heart conditions, arthritis, impairments of the back and spine, chronic obstructive lung disease, mental and nervous conditions and dental disease (16).

2.3.3 Social learning theory

Social Learning Theory (SLT) is a type of learning theory that is grounded in the belief that human behavior is determined by the relationship between cognitive factors, environmental influences, and behavior (17). It is framework of empirical evidence used to study and interpret social phenomena. There are some concepts of social theory as below. Learning theory attempts to explain how and what factors determine their behavior. In the words of the principal architects of Albert Bandura, "Social learning theory approaches the explanation of human behavior in terms of a

continuous reciprocal interaction between cognitive, behavioral, and environmental determinants"(17). There is three-way relationship which is presented in the figure below.

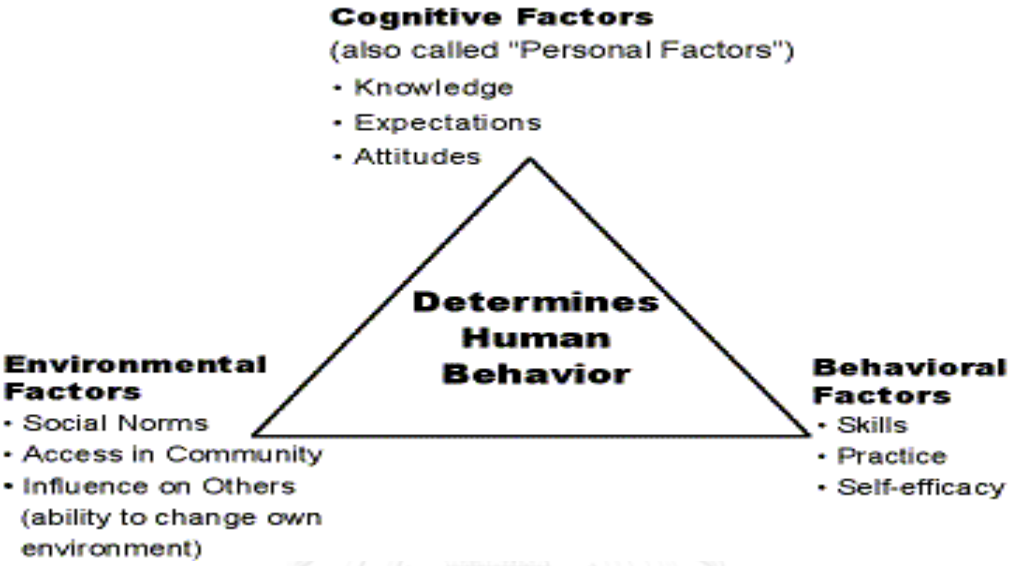

Figure 3 : Three-way relationships in social learning theory

From the theories definitions that mentioned above conclude that health believe model, self-care and social learning theories are the processes of the performance of human activities related to the health promotion, prevention, treatment and rehabilitation care to restore the good health of their potential. The self-health care of menopause population had different result behavior, in case who lack of interest in the self-health care will not recognize or do not concern the importance of their own health impact that make their health care behavior is not good. This may due to a decrease in their health care and affect behavior by drug misuse.

2.4. Measurement tools

The measurement tools that were used in this study constructed and developed by gathering from textbooks and related researches as follow.

2.4.1 Menopause screening form

Menopause screening form was used to assess the symptoms that occur during the transitional to menopause in the past 12 months at least one symptom (1).

There are physical, emotional, social and spiritual problems related to a decrease in sex hormone. The variables of the questionnaire are about symptoms of disorders of the autonomic nervous system, changes in the reproductive organs, urinary system and sexuality. In the questionnaire are 14 questions, which are characterized by symptoms that were experienced when they entering the menopausal status. Each question had the rating scale with four levels (0-3); no symptom get 0 score, mild symptoms get 1 score, moderate symptoms 2 score and severe symptoms for 3 score which using the following criteria.

None	no symptom occurred (0 score)
Mild	occurred infrequently average less than or equal 1 time per week or at least once a month (1 score)
Moderate	symptoms occurred frequently, but not every day average 2-3 days per week (2 score)
Severe	symptoms occurred almost every day, about an average of 4-7 days per week (3 score)

Rating scale of the screening form will be scoring as follows;

0 score	No menopause symptom in this samples group resulting in this part of the critical study excluded.
1-14 score	Low or mild menopause symptoms in this sample group, resulting in this part of the critical study in need of health care instructions but may not need the treatment.

15-28 score Mild symptoms of menopause and may require health care and treatment in some cases, such as muscle-joints pain and insomnia.

29-42 score Severe symptom of menopause that require physical diagnostic and or treatment by a physician.

The content of reliability was tested in 30 women who shared the similar characteristic with target respondents then analyzed by Cronbach's alpha coefficient formula (3).The reliability of the questionnaire was 0.86.

2.4.2 Drug use pattern tools

The researcher developed the tools from the previous studies. There were 3 main parts as follow;

1. Drug or medications that were used for personal disease or menopause symptoms. This part consists of questions regarding type, source and amount of drug and frequency drug using. Then the data of drug/medicine used will be compared to drug prescription on the medicine bags or the standard of medication use guideline (4) and the drug misuse definition in this study. If respondents used more than one type of drug/medicine and had at least one or more of drug/medicine misuses, they will be included in the drug misuse category (Questionnaire 3.1 and 3.2).
2. The awareness of using medicine part had 1.0 of IOC (18)and consists of the 20 questions regarding drug/medicine practices during the past 12 months.

Reliability was tested in 30 people and analyzed by using Cronbach's alpha coefficient formula. Reliability of the questionnaire was 0.85.

3. Knowledge about prescription part (19) aimed to evaluate the level of knowledge regarding prescription consist by 12 questions.

2.5. Related researches

The Department of Health reported that the menopause population is the deterioration of physical, mental and sexual hormones changes due to health problems. In addition, bodily function can effect health status by increasing susceptibility of getting diseases/illnesses such as obesity, diabetes, hormone deficiency, decrease in bone mass density, hypertension, heart disease, cancer, stress, insomnia, sexuality, occupational health and genetic health behaviors problem(Nutrition, Physical inactivity, Mental health), also included environmental problems (1).

Jose Antonio Martinez Perez, Felipe Chavida Garcia, Santiago Palacios and Maite Perez (2008) (2) studied on epidemiological of risk factors and symptoms related to menopause in 10,514 Spanish women aged 45-65 years found that, 67.6 percent were at risk of osteoporosis and 74.8 percent of cardiovascular, respectively. The majority common risks were physical inactivity 53.6 percent, obesity 44.3 percent, hypertension 36.6 percent, high cholesterol 31.4 percent, low calcium intake 30.1 percent and 28.7 percent of smoking. The most common symptom and problem were hot flashes, insomnia 51.4, 45.7 percent respectively and irritability 42.2 percent.

Piyanoot Phansiri (2011) (3)studied on menopause and andropause's health behavior of seven provinces in north-eastern, Thailand found that the symptom with

highest occurrence in hormone levels changes period were muscle-joint pain 25.7 percent, hot flash 16.5 percent and insomnia 15.1percent and health care behavior found that 63.6 percent of insomnia using sleep pill.

Department of health (2011) (1) reported the relationship of the factors that influence health behaviors among menopause and andropause people in Thailand that congenital disease, necessary drug used, current illness, testosterone hormone deficiency and stress are associated with menopause and andropause health behavior.

In addition, Kampol Sriwatanakul (2001) (4) found that the populations aged between 15-60 years took medication without prescriptions to relieve symptoms for various illnesses by purchasing from pharmacies/drug stores and other methods. There are a number of medication users who were not aware of the restrictions and the risk of medication use without prescription.

Regarding Bureau of Epidemiology in 2006(8), Ministry of Public Health received reports of illness regarding the use of prescription drugs behavior and illegal pharmacies. The ministry had been monitoring the effects of drug on 1,760 people from the report of drug intolerance, overdose of sleeping pills, antibiotics, narcotics, analgesic drugs and anti-allergy drugs in the patient.

Leonard J. Paulozzi (2012) (20) reported that the epidemics of prescription drug overdoses were a host of factors which were low income, middle aged and mental problem.

Katrina T. (2006) (21) reported that the inappropriate medication use in elderly patients who receipt home health cares was associated with polypharmacy.

Wonpen Kaewpan (2007) (22) studied on factors associated to health promoting behaviors among Thai middle-age men reported that most of the middle-age men who received health promotion information via materials, media and family members will increase accessibility to health service and promote effective health behavior.

Patcharaporn Panyawuttikrai (2004) (5) studied on prescription use behaviors in Thailand and the services of pharmacy result found that people would go to their local pharmacy for minor illness without having a prescription from the physician especially in rural areas.

Niran Tiasuwan (2008)(4) reported that medication advertising via radio and television in Thailand especially in the rural made people have chance to take unnecessary medicine or overdose.

Witaya Kulsomboon and Wanna Sriwiriyanupap (2007)(7) found that there were 8,371 victims taking poor quality and expired medicine due to the unlicensed health products and pharmacies, expired and low quality medicine based on consumer complaints to Consumer Protection Board and The Food and Drug Administration in 2006.

Lin Li et al.(2012) (23)studied on factor related with the natural menopause symptoms in Chinese women found that overall median age was 50 years had symptoms of sexual problems 57.05 percent, muscle-joint pain 53.29 percent and insomnia 51.02 percent. Factors contributing to earlier onset of menopause and severity of menopause symptoms were lower education level, poor economic status and smoking.

Linjakumpu, T. et al.(2002) (24) study on the use of medications and polypharmacy among elderly found that drug use and polypharmacy among people living in the community or municipality aged 64 years was increased. There were 88 percent used prescription drugs during 7 days before the interview, the most frequently used medicine was cardiovascular and central nervous systems drug. The increasing number of drugs and polypharmacy (use concominant than five doses) were also increased. These changes mostly found among elderly aged 85 years or over.

Hsiu-Yun Lai et al. (2009) (25) research about the prevalence of the prescribing of potentially inappropriate medications at ambulatory care visits by elderly patients covered by the Taiwanese National Health Insurance program found that 62.5% of elderly patients were exposed to potentially inappropriate medication prescribing. Patient's characteristic associated with increasing of potentially inappropriate medications was female sex. There were significant associations of potentially inappropriate medications and visits to a primary care clinic and the number of drugs prescribed (4–6 drugs). The most common prescribed types of potentially inappropriate medications were antihistamines (4.8% of all prescriptions in 48.3% of elderly patients), muscle relaxants/antispasmodics (4.0% and 40.3%, respectively), and long-acting benzodiazepines (2.4% and 21.4%). There was a high prevalence of the prescribing of potentially inappropriate medications at ambulatory care visits by elderly patients in Taiwan in 2001–2004.

CHAPTER III

RESEARCH METHODOLOGY

3.1. Research design

A cross-sectional study method was used for this study on drug misuse among urban menopause population in Muang district, Ubon Ratchathani, Thailand.

3.2. Study area

Muang district, Ubon Ratchathani, Thailand.

3.3. Study population

The total women aged 45-59 living in urban area in Muang district, Ubon Ratchathani province were 23,078 and 14,492 (62.8%) of them living in 4 proposed municipalities responsible areas (1).

3.4. Sample size calculation

Total population of women aged 45-59 living in 4 proposed municipalities responsible areas were 14,492 and based on Krejcie and Morgan (27) formula, sample size was calculated as follow

$$n = \frac{\chi^2 Np(1 - p)}{e^2 (N - 1) + \chi^2 p (1 - p)}$$

n = Sample size

N = Total population

e = Error probability

χ^2= Chi-square value at df = 1, 95% CI. (χ^2=3.841)

p = proportion of population (p = 0.5)

$$n = \frac{3.841 \times 14{,}492 \times 0.5 \times 0.5}{(.05)^2 \times (14{,}492 - 1) + 3.841 \times 0.5 \times 0.5}$$

$$n = 374.207716 \approx 374$$

From the calculation, total required sample size was 374.

3.5. Sampling technique

Purposive and proportion and simple random sampling techniques were used in this study.

Step 1 listed all areas under Muang district which has 4 municipalities, 12 sub districts and 9 Local-Administration Organizations.

Step 2 selected 4 municipalities; City, KhamYai, Patum and Ubon which presented high density (14,492) of population aged 45-59.

Step 3 proportionately sample size wascalculated according to the population in each municipality (Table 2) and simple random dampling was used to gain targeted sample size.

Table 2 The number of population in age 45-59 years

Municipalities	Menopause population	The number of sample by proportion
City	8,996	250
KhamYai	3,575	100
Patum	1,104	31
Ubon	817	30
Total	14,492	411

Source: Department of Provincial Administration, 2011 (28)

The name list of women aged 45-59 living in study area was gathered by community health center and simple random sampling technique was used for subject selection and the data was collected by using a structured questionnaires.

3.5.1 Inclusion criteria of the subjects

- 45-59 years old women
- has been living in targeted areas at least 6 months
- had natural amenorrhea more than 12 months and had at least 1 score of menopause symptom by standard menopause screening form

3.5.2 Exclusion criteria of the subjects

- had no menopause symptom by using standard menopause screening form
- had physical disables
- had psychotic disorders

3.6. Measurement Tools

The menopause screening question was used to determine the presented of respondent's menopause symptoms. If there were one or more menopause symptoms presented, further interviewing related to dependent variables (age, marital status, education, occupational, living arrangement and financial status) and independent variables would be continued for data collection. The structure questionnaire divided in to 4 parts as follow;

Part 1 Menopause screening

Menopause screening form was used to assess the symptoms that occur during the transitional to menopause during the past 12 months (1).

Each question had four rating scale (0-3); “0” for no symptom, “1” for mild symptom, “2” for moderate symptom and “3” for severe symptom then following criteria will be used for menopause symptoms assessment.

None	No symptom occur
Mild	Infrequently occurred (average less than or equal to 1 time per week or at least once a month)
Moderate	Symptoms frequently occurred but not every day (average 2-3 days per week)
Severe	Symptoms occurs almost every day (average of 4-7 days per week)

Rating scale of the menopause screening form would be divided in to following range.

0 score	No menopause symptom presented in sample and need to exclude from the study
1-14 score	Low or mild menopause symptoms presented in this sample group but may not need the treatment
15-28 score	Mild symptoms of menopause and may require healthcare and treatment in some cases, such as muscle-joints pain or insomnia
29-42 score	Severe symptom of menopause that require physical diagnostic and/or treatment by a physician.

The measurement tool of this study was gathered and developed from textbooks and related researches. Reliability was tested by interviewing 30 women who shared the similar characteristic with targeted population then analyzed by using Cronbach's alpha coefficient formula (3). Reliability of this questionnaire was 0.86.

Part 2 Socio-demographic characteristics

This part consisted of questions asking about age, marital status, religion, education, occupation, monthly income, family status, health security insurance scheme.

Part 3 Health status, Health behaviors and Health seeking

This part consisted of the question aimed to approach sample's health status, health behaviors and health seeking which asking about BMI, eating behaviors, physical activity, smoking, alcohol drinking, annual checkup and disease.

The health behaviors part in each question had 3 rating scale as follow;

Health behaviors	Positive items score)2.5.1-2,2.5.6-8,2.5.10(	Negative items score (2.5.3-5,2.5.9,2.5.11-14)
Everyday	3	1
Someday (3-5days/week)	2	2
Never	1	3

Classify by mean ($\bar{x}$) (Department of health, 2011);

1.00 – 1.49 Low level of awareness on health promotion

1.50 – 2.49 Moderate level of awareness on health promotion

2.50 – 3.00 Good level of awareness on health promotion

These characteristics were indicated the health behavior that associated with drug misuse.

Part 4 Drug/medicine using

The measurement tool was constructed and developed by gathering from textbooks, related research and previous studies divided in 3 parts as follows.

1. Drug or medication used with chronic disease or menopause symptoms. This part consists of the questions asking about type, source, amount and frequency of drug using. (questionnaire 3.1 and 3.2)
2. Awareness of using medicine instrument part with IOC score at at “1.0” (18). There were 20questionnairesasking about information related to drug/medicine use during the past 12 months. The drug use behavior refers to the type, amount and frequency of the drug. Each question had 3 rating scale as follow;

Drug use practices	Positive items score (1-5,9,11-13,15,17)	Negative items score (6-8,10,14,16,18-20)
Regularly	3	1
Sometime	2	2
Never	1	3

Classify by mean ($\bar{x}$);

1.00 – 1.66 Low level of awareness on drug use

1.67 – 2.33 Moderate level of awareness on drug use

2.34 – 3.00 Good level of awareness on drug use

Reliability test was done by interviewing 30 respondents who share the characteristics with targeted population then analyzed gathering by using Cronbach's alpha coefficient formula .The reliability of this questionnaire was 0.85.

3. Knowledge about prescription (19) part aimed to evaluate the level of knowledge about prescription by 12 questions asking about medications. Cut-off points were classified in to one of followings situations:

- Less than 8 : Insufficient level (user does not have conditions to use drug safely)
- From 8-10 : Average level (user has conditions to use the drug safely, when there are no incidents)
- 11 points or more: good level (user has conditions to use the drug safely, under any circumstances)

3.7. Validity and Reliability test

3.7.1 The instruments have been reviewed by three experts on health behavior, menopause and pharmacology content. The Index of item-Objective Congruence (IOC) formula was as follow.

$$\text{IOC} = \sum \frac{R}{N}$$

$\sum R$ = Sum scores of all experts

N = Numbers of experts

Accepted IOC score was 0.5 -1 .0. The IOC of menopause screening form of this study was“0.93”, drug or medication use was “0.66”,drug/medicine practice was“1” and knowledge about prescription was“1”.

3.7.2 Reliability test was conducted by pilot interviewing to 30 samples of menopause women in Ubon Ratchathani, Thailand then calculated reliability test by Cronbach's alpha coefficient formula. Reliability result was in each part presented as follow.

- Menopause screening part reliability = 0.86
- Drug/medicine use pattern reliability = 0.85
- Knowledge about drug prescription = 0.83

3.8. Data Collection

The data was collected by structured questionnaires with following procedures.

3.8.1 Developed measurement tools by gathering information from textbooks, articles reviewed and related researches.

3.8.2 Instrument validated by three experts and requested for the ethical approval.

3.8.3 Conducted pilot study in 30 samples of menopause population in Ubon Ratchathani, Thailand for reliability test and adjusted the tools according to the reliability test result.

3.8.4Informed for cooperation in the study to the director of Ubon Ratchathani Provincial Public Health Office for permission and arrangement for data collection at health centers in the study areas.

3.8.5 Trained 5 co-research personnel's from the health care center and hospital in the study area before collecting data to understand the study-questionnaires in the same query.

3.8.6 Coordinated with the responsible health officers in the study areas to for permission and assistance for data collection at the health centers.

3.8.7Provide information to respondents in order to obtain to respondent's consent then collected data by structured questionnaires.

3.8.8 Rechecked questionnaires completeness before data entry and analysis.

3.9. Data Analysis

SPSS software version 16.0 was used for quantitative data analysis.

3.9.1 Descriptive statistic was used to describe subject general characteristics and presented as frequency, percentage, mean and standard deviation.

3.9.2 Chi-Square test was used to for studying the association between socio-demography characteristics, health status, health behavior, health seeking, knowledge about prescription and drug misuse.

3.10. Ethical Consideration

This research was reviewed and approved by Ethics Review Committee of Chulalongkorn University (COA No. 062/2556 March14, 2013). Informed written consent must obtain from the study participants.

CHAPTER IV

RESULT

A cross-sectional study was conducted among menopause population in Muang district, Ubon Ratchathani, Thailand. The aim of the study was to evaluate the drug misuse pattern among 436 women by menopause screening form which was used to assess the symptoms occurring the transitional to menopause during the past 12 months with at least one symptom. There were 411 women having menopause symptoms and natural amenorrhea which were included in the present study. 25 women have no any menopause symptom and unnatural amenorrhea; therefore these women were excluded from the present study. The present study used the questionnaires interview to collect data. The result was found as follow;

4.1 Socio-demographic characteristics

4.2 Health status, health behaviors and health seeking

4.3 Drug/medicine using

4.4 Knowledge about drugs prescription

4.5 Drug misuse pattern

4.1 Socio-demographic characteristics

The present study showed that more than 50% of the samples were age 55-59 years old and most of them were married (70%). About 40% had education on primary school, 16% on high school. More than 30% were unemployed, 20% had their own business and 20% were government officer. About the family status, almost 70% were household member. About 15% were health volunteer. Almost all

of them (more than 90%) were Buddhist, around 40% had monthly income less than 5,000 Baht and almost 30% had family income for more than 30,000 Baht. About the health security insurance scheme, half of them were getting Thailand health insurance scheme from the government and almost 40% were getting from the civil service welfare system (Table 3).

Table 3 Socio-demographic characteristics (n=411)

Characteristic	n (%) (n=411)
Age	
45-49	58(14.1)
50-54	121(29.4)
55-59	232(56.4)
Marital status	
Single	20(4.9)
Married	288(70.1)
Separated	17(4.1)
Divorced	19(4.6)
Widowed	67(16.3)
Education	
Never goes to school	9(2.2)
Primary school	176(42.8)
Secondary school	41(10.0)
High school level	66(16.1)

Associated degree	47(11.4)
Bachelor degree	60(14.6)
Others(Grad 4, Master degree)	12(2.9)
Occupational	
Unemployed	160(38.9)
Farmer/agriculture	22(5.4)
Labor	31(7.5)
Employer	21(5.1)
Government officer	85(20.7)
Business	92(22.4)
Family status	
Household leader	128(31.1)
Household member	283(68.9)
Social status	
No social status	311(75.7)
Leader of village	16(3.9)
Health volunteer	63(15.3)
Government administrator	21(5.1)
Religion	
Buddhist	395(96.1)
Christian	15(3.6)
Muslim	1(0.2)
Monthly income	
Less than 5,000	176(42.8)

5,001 – 10,000	97(23.6)
10,001 – 20,000	49(11.9)
20,001 – 30,000	40(9.7)
More than 30,000	49(11.9)
Family income per month	
Less than 5,000	58(14.1)
5,001 – 10,000	76(18.5)
10,001 – 20,000	103(25.1)
20,001 – 30,000	52(12.7)
More than 30,001	122(29.7)
Health security insurance scheme	
Universal coverage scheme	212(51.6)
Social security scheme	29(7.1)
Civil service welfare system	164(39.9)
Other(Payment)	6(1.5)

4.2 Health status, health behaviors and health seeking

4.2.1 Health status

In the study, we have assessed the health status followed by assessment criteria the result showed that the menopause had average BMI(Body Mass Index) of 24.5 kg/m2 which were in the group of overweight level 1 between 23-24.9 kg/m2. More than 60% of them were overweight and in age 55-59 years old were overweight more than the other age groups (Table 4 and 5).

Table 4 Average of health status

Characteristic	X	S.D.
Body weight (kg.)	59.8	8.88
Height (cm.)	156.3	5.85
Body Mass Index (BMI)	24.5	3.60

Table 5 Health status classify by age group

Health status	Age group n(%)			Total (n=411)
	45-49 (n=58)	50-54 (n=121)	55-59 (n=232)	
Body Mass Index(BMI)				
BMI less than18.5 kg/m	2(3.4)	13(10.7)	4(1.7)	19(4.6)
BMI between18.5 – 22.9 kg/m2	29(50.0)	40(33.1)	67(28.9)	136(33.2)
BMI between23– 24.9 kg/m2	7(12.1)	28(23.1)	58(14.1)	93(22.6)
BMI between 25-29.9 kg/m2	19(32.8)	33(27.3)	85(36.6)	137(33.3)
BMI more than 30 kg/m2	1(1.7)	7(5.8)	18(7.8)	26(6.3)

4.2.2 Health behavior

About the health behavior, we mentioned about physical activities, eating behavior, sleep pattern, smoking and alcohol drinking. About physical activity, the result showed that almost all of the participants in age group of 45-49 years old had physical activity in high work force level more than the other age groups. The age group of 55-59 years old had the lowest work force level. More than 50% of participants exercised until heart beating and sweating at least 3 times per week and

30 minutes per time irregularly and only 18% of them exercised 1-3 times per week regularly (Table 6).

Table 6 Health behavior classify by age group (Physical activity)

Health Behavior	Age group n(%)			Total (n=411)
	45-49 (n=58)	50-54 (n=121)	55-59 (n=232)	
Physical activity				
Work force				
Low work force (housework, office work etc.)	40(69.0)	86(71.1)	184(79.3)	310(75.4)
High work force (labor work etc.)	18(31.0)	35(28.9)	48(20.7)	101(24.6)
Exercise until heart beating and sweating at least 3 times per week and 30 minutes per time				
Never	10(17.3)	14(11.6)	39(16.8)	63(15.3)
Irregularly	41(70.7)	62(51.2)	133(57.3)	236(57.4)
Exercise 1-3 time per week	6(10.3)	29(24.0)	39(16.8)	74(18.1)
Exercise greater than, or equal 4 time per week	1(1.7)	16(13.2)	21(9.1)	38(9.2)

The result of sleeping pattern showed that 70% had enough sleep, 20% were sleepless and only 9% needed sleeping pill. The higher sleepless (less than 6 hours) were found in age group of 45-49 years old of two groups thus may cause from they

still got menopause symptom at the first of menopause and in age group 50-55 was the most group that needed to take sleeping pill (Table 7).

Table 7 Health behavior classify by age group (Sleep pattern)

Health Behavior	Age group n(%)			Total (n=411)
	45-49 (n=58)	50-54 (n=121)	55-59 (n=232)	
Sleep pattern				
Sleep well (6-8 hrs.)	39(67.2)	92(76.0)	165(71.1)	296(72.0)
Sleepless (less than 6 hrs.)	16(27.6)	21(17.3)	57(24.5)	94(22.9)
Take sleeping pill	8(13.8)	12(9.9)	18(7.7)	38(9.2)
Every night	0(0.0)	2(1.6)	5(2.1)	7(1.7)
Sometime	8(13.8)	10(8.2)	13(5.6)	31(7.5)

The data analysis of eating behaviors showed that more than 80% ate sprats or can fish and drink milk 3-5 days per week, 50% ate vegetable and/or fruit every day, more than 80% ate meat, coconut milk curry or fried food 3-5 days per week, almost 80% ate sweet food, dessert, fruit or sweet drinking 3-5 days per week, 50% ate salty food 3-5 days per week, more than 50% of them not drink tea, more than 80% of them not drink energy drink but more than 60% drank coffee and almost half of them drank everyday average 1 cup per day. About smoking behavior, most of them no smoking only 2% that smoking everyday and most of them smoked 5 cigarettes per day (Table 8).

Table 8 Health behavior classify by age group (Eating behavior)

Health Behavior	Age group n (%)			Total (n=411)
	45-49 (n=58)	50-54 (n=121)	55-59 (n=232)	
Eating behavior				
Milk, sprats or canned fish				
3-5 days/week	45(77.6)	103(85.1)	192(82.8)	340(82.7)
Everyday	6(10.3)	11(9.1)	17(7.3)	34(8.3)
Vegetables and/or fruits				
3-5 days/week	27(46.6)	66(54.5)	111(47.8)	204(49.6)
Everyday	31(53.4)	55(45.5)	121(52.2)	207(50.4)
Meats, coconut milk curry, fried foods				
3-5 days/week	51(87.9)	100(82.6)	187(80.6)	62(15.1)
Everyday	1(1.7)	7(5.8)	3(1.3)	338(82.2)
Sweet foods, dessert, fruits or drinking				
3-5 days/week	43(74.1)	95(78.5)	183(78.9)	321(78.1)
Everyday	4(6.9)	5(4.1)	9(3.9)	18(4.4)
Salty foods				
3-5 days/week	29(50.0)	58(47.9)	105(45.3)	192(46.7)
Everyday	1(1.7)	0(0.0)	11(4.7)	12(2.9)
Drink tea	27(46.6)	67(55.4)	83(35.8)	177(43.1)
1-3 times/week	23(39.6)	52(42.9)	59(25.4)	134(32.6)

Everyday	4(6.9)	15(12.4)	24(10.3)	43(10.5)
1 cup/day	4(6.9)	15(12.4)	24(10.3)	43(10.5)
Drink coffee	40(69.0)	87(71.9)	142(61.2)	269(65.5)
1-3 times/week	10(17.2)	25(20.6)	37(9.0)	72(17.5)
Everyday	30(51.7)	62(51.2)	105(45.25)	197(47.9)
1 Cup/day	29(50.0)	62(51.2)	102(43.9)	193(47.0)
2 Cups/day	1(1.7)	0(0.0)	3(1.3)	4(1.0)
Energy drink	8(13.8)	13(10.7)	27(11.6)	48(11.7)
1-3 times/week	7(12.0)	10(8.2)	25(10.7)	42(10.2)
Everyday	1(1.7)	3(2.4)	2(0.86)	6(1.5)
1 cup/day	1(1.7)	3(2.4)	2(0.86)	6(1.5)
Smoking	1(1.7)	0(0.0)	10(4.3)	11(2.7)
1-3 days/week	1(1.7)	0(0.0)	0(0.0)	1(0.2)
Amount of cigarettes				
2cigarettes	1(1.7)	0(0.0)	0(0.0)	1(0.2)
Everyday	0(0.0)	0(0.0)	10(4.3)	10(2.0)
Amount of cigarettes				
3 cigarettes	0(0.0)	0(0.0)	1(0.4)	1(0.4)
4 cigarettes	0(0.0)	0(0.0)	2(0.8)	2(0.8)
5 cigarettes	0(0.0)	0(0.0)	4(1.7)	4(1.7)
10 cigarettes	0(0.0)	0(0.0)	2(0.8)	2(0.8)
20 cigarettes	0(0.0)	0(0.0)	1(0.4)	1(0.4)

Considering alcohol drinking, the result showed that almost 30% of participants drank alcohol; the overall average age that had started to drink alcohol was 27 years old. The highest was found in the age group of 50-54 years old and 40% of them had first alcohol drinking at age 20-29 years old (Table 9 and 10).

Table 9 Alcohol drinking classify by age group (n=411)

Health Behavior	Age group n (%)			Total (411)
	45-49 (n=58)	50-54 (n=121)	55-59 (n=232)	
Alcohol drinking				
No	46(79.3)	75(62.0)	170(73.3)	291(70.8)
Yes	12(20.7)	46(38.0)	62(26.7)	120(29.1)
Age at first alcohol drink (n=120†)				
10-19 years old	1(8.3)	8(17.4)	18(29.0)	27(22.5)
20-29 years old	8(66.7)	19(41.3)	22(35.5)	49(40.8)
30-39 years old	2(16.7)	14(30.4)	16(25.8)	32(26.7)
40-49 years old	1(8.3)	5(10.9)	3(4.8)	9(7.5)
50-59 years old	0(0.0)	0(0.0)	3(4.8)	3(2.5)

†Only those who drink alcohol

Table 10 Alcohol drinking classify by the drinking time

Alcohol drinking (multiple answer)	Lifetime n (%)	Last year n (%)	Last month n (%)	Last week n (%)
Beer	120(29.2)	99(24.1)	75(18.2)	41(10.0)
Whisky	48(11.7)	19(4.6)	4(1.0)	3(0.7)
Sato	1(0.2)	1(0.2)	1(0.2)	1(0.2)

Considering the group type of alcohol drinking in last month, the most was beer with frequency of drinking about 1-2 times per month, 80% of them had amount of drinking 10 grams of ethanol per day and 15% of age group 55-59 years old were drinking more than 20 grams of ethanol per day (Table 11-13).

Table 11 Type of alcohol drinking last month

Type of alcohol drinking last month	Age group n (%)			Total (n=411)
	45-49 (n=58)	50-54 (n=121)	55-59 (n=232)	
Beer	5(8.6)	33(27.3)	37(15.9)	75(18.2)
Whisky	0(0.0)	2(1.7)	2(0.9)	4(1.0)
Sato	0(0.0)	1(0.8)	0(0.0)	1(0.2)
None	53(91.4)	85(70.2)	193(83.2)	331(80.5)

Table 12 Frequency of alcohol drinking last month

Frequency of alcohol drinking last month (Time)	Age group n(%)			Total (n=80)
	45-49 (n=5)	50-54 (n=36)	55-59 (n=39)	
1	2(40.0)	15(41.7)	10(25.6)	27(33.8)
2	1(20.0)	8(22.2)	8(20.5)	17(21.2)
3	0(0.0)	8(22.2)	5(12.8)	13(16.2)
4	1(20.0)	2(5.6)	2(5.10)	5(6.2)
5	0(0.0)	0(0.0)	1(2.6)	1(1.2)
8	0(0.0)	0(0.0)	7(17.9)	7(8.8)
10	0(0.0)	0(0.0)	4(10.3)	4(5.0)
12	0(0.0)	3(8.3)	2(5.1)	5(6.2)
30	1(20.0)	0(0.0)	0(0.0)	1(1.2)

Table 13 Amount of alcohol drinking last month (Gram of ethanol)

Gram of ethanol per day	Age group n (%)			Total (n=80)
	45-49 (n=5)	50-54 (n=36)	55-59 (n=39)	
10	4(80.0)	33(91.6)	28(71.8)	65(81.3)
20	0(0.0)	3(8.4)	5(12.8)	8(10.0)
40	1(20.0)	0(0.0)	4(10.3)	5(6.2)
50	0(0.0)	0(0.0)	2(5.1)	2(2.5)

Type of alcohol drinking in last week in the most was beer, majority was age group 50-54 years old, frequency of drinking 1 time per week and most of them had amount of drinking 10grams of ethanol per day and more than 50% of age group 55-59 years old had drinking more than 20-30grams of ethanol per day (Table 14-16).

Table 14 Type of alcohol drinking last week

Type of alcohol drinking last week	Age group n (%)			Total (n=411)
	45-49 (n=58)	50-54 (n=121)	55-59 (n=232)	
Beer	3(5.2)	19(17.3)	19(7.3)	41(10.0)
Whisky	0(0.0)	1(0.8)	2(0.9)	3(0.7)
Sato	0(0.0)	1(0.8)	0(0.0)	1(0.2)
None	55(94.8)	100(82.6)	211(90.9)	366(89.1)

Table 15 Frequency of alcohol drinking last week

Frequency of alcohol drinking last week (Time)	Age group n(%)			Total (n=45)
	45-49 (n=3)	50-54 (n=23)	55-59 (n=19)	
1	1(33.3)	20(87.0)	4(21.1)	25(55.6)
2	0(0.0)	3(13.0)	5(26.3)	8(17.8)
3	1(33.3)	0(0.0)	7(36.8)	8(17.8)
4	0(0.0)	0(0.0)	3(15.8)	3(6.7)
7	1(33.3)	0(0.0)	0(0.0)	1(2.2)

Table 16 Amount of alcohol drinking last week (Gram of ethanol)

Gram of ethanol per day	Age group n(%)			Total (n=45)
	45-49 (n=3)	50-54 (n=23)	55-59 (n=19)	
10	1(33.3)	20(87.0)	10(52.6)	32(71.1)
20	0(0.0)	3(13.0)	5(26.3)	8(17.8)
40	1(33.3)	0(0.0)	4(21.1)	5(11.1)

Overview of health behavior of the menopause was rated and classified by mean revealed that most of them had moderate level of awareness on health behaviors promotion(eating behavior, physical activities, sleep pattern, smoking and alcohol drinking) (Table 17).

Table 17 Overview of the level on health behavior promotion of the menopause

Health behavior level	Age group n(%)			Total (n=411)
	45-49 (n=58)	50-54 (n=121)	55-59 (n=232)	
Low level of awareness on health promotion	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Moderate level of awareness on health promotion	54(93.1)	98(81.0)	184(79.3)	336(81.8)
Good level of awareness on health promotion	4(6.9)	23(19.0)	48(20.7)	75(18.2)

4.2.3 Health seeking

The result of health seeking in this study showed that about 80% of them have got annual checkup, 13% of them got annual checkup more than one year, and almost 50% got annual checkup in 2012, about 30% got annual checkup in the last month (March, 2013). The result of data analysis showed that almost 60% had got the disease; most of them had get hypertension, diabetes mellitus and gastritis, respectively. The age group of 55-59 years old had the most disease (Table 18).

Table 18 Health seeking classify by age group

Health seeking	Age group n(%)			Total
	45-49 (n=58)	50-54 (n=121)	55-59 (n=232)	(n=411) n (%)
Annual checkup	43(74.1)	94(77.7)	195(84.1)	332(80.8)
More than 1 year	7(16.3)	15(16.0)	34(17.4)	56(13.6)
Check up last year	15(34.9)	39(41.5)	103(52.8)	157(47.3)
Check up last month	19(45.2)	19(21.3)	62(32.5)	100(31.1)
Disease	30(51.7)	65(53.7)	150(64.6)	245(59.6)
Diabetes Mellitus	8(26.6)	11(16.9)	26(17.3)	45(18.3)
Hypertension	4(13.3)	19(29.2)	72(48.0)	95(38.7)
Gastritis	8(26.6)	12(18.4)	19(12.6)	39(15.9)
Asthma	1(3.3)	2(3.0)	2(1.3)	5(2.0)
Arthritis	4(13.3)	6(9.2)	8(5.3)	18(7.3)
Gout	0(0.0)	0(0.0)	3(2.0)	3(1.2)
Renal Failure	1(3.3)	2(3.0)	2(1.3)	5(2.0)
Other (i.e. Thalassemia,	4(13.3)	13(20.0)	18(12.0)	35(14.3)

Hyperlipidemia, Thyroid)	Sinusitis,			

4.3 Drug/medicine using

4.3.1 Drug/medicine information receiving

In this study we assess the drug/medicine using the places that usually obtain drug/medicine, information receiving and type of drug/medicine which were used in the term of the menopause symptoms or chronic disease. The result found that more than 60% usually obtained drug/medicine from the hospital and 20% from pharmacy. About the drug/medicine using information receiving, the study found that almost 90% of them received the information and almost 80% of them received the drug information from the health personnel, 50% from TV and 40% from family members, respectively (Table 19).

Table 19 Drug using resource and information receiving

Information receiving	Age group n (%)			Total (n=411)
	45-49 (n=58)	50-54 (n=121)	55-59 (n=232)	
The places that usually obtain drug/medicine				
Stores/Supermarket	0(0.0)	1(0.8)	0(0.0)	1(0.2)
Pharmacy	8(13.8)	26(21.5)	49(21.1)	83(20.2)
Private health clinic	6(10.3)	13(10.7)	22(9.5)	41(10.0)
Hospital	38(65.5)	76(62.8)	159(68.5)	273(66.4)
Other (PCU)	6(10.3)	5(4.1)	2(0.9)	13(3.2)

Drug/medicine useinformation receiving	48(82.8)	110(90.9)	203(87.9)	361(87.8)
Resources drug use information(multiple choices)				
Family	17(32.7)	43(36.4)	103(47.5)	163(42.1)
Radio	24(46.2)	20(16.9)	45(20.7)	89(23.0)
Friends	10(19.2)	25(21.2)	58(26.7)	93(24.0)
TV	35(67.3)	60(50.8)	103(47.5)	198(51.2)
Health personnel	42(80.8)	89(75.4)	174(78.8)	305(78.8)
Posters/leaflets	9(17.3)	41(34.7)	53(24.4)	103(26.6)
News paper	15(28.8)	33(28.0)	67(30.9)	115(29.7)
Internet	7(13.5)	19(16.1)	13(6.0)	39(10.1)
Hotline 1556	0(0.0)	1(0.8)	9(4.1)	10(2.6)
Other (i.e.Health volunteer, Training, Hospital)	3(5.8)	8(6.8)	31(14.3)	42(10.9)

4.3.2 Drug/medicine use practices

In the study we assessed the awareness of drug use practices which were analyzed by mean ($\bar{x}$) and standard deviation (S.D.). The result found that the top five in good level of drug use practices were number 2 follow the medicine instruction on the label before use($\bar{x}$=2.90), number 1 read the drug label before use($\bar{x}$=2.86), number 13 keep the drug away from light and heat($\bar{x}$=2.75), number 20 stop use the syrup medicine if it has changed color or precipitated ($\bar{x}$=2.73) and number 18 not use eye drops, ear drops along with other($\bar{x}$=2.71) respectively. For

the drug use practices with the moderate level of awareness drug use practices were number 4 avoid use drug that may not be safe such as traditional medicine and steroids mixed, tonic supplement for treatment or prevention of disease ($\bar{x}$=2.08) , number 8 not take drug in a few doses and short duration for relieve the symptom ($\bar{x}$=2.09), number 17 keep eye drops after used in the refrigerator not more than one month for next using($\bar{x}$=2.10) and number 15 stop take drug immediately after got side effects such as itch, redness, swelled ($\bar{x}$=2.12) which the 4 items will be use to be the topic for health education plan to improve more awareness of people in terms of drug use practices in the future (Table 20).

Table 20 Drug use practices

Drug use practices	$\bar{x}$	S.D.	Level
Read the drug label before use.	2.86	0.36	Good
Follow the instructions on the medicine label before use.	2.90	0.31	Good
Chose to buy the drug from a pharmacy that shows the label "Best drugs quality" from the drugstore.	2.57	0.65	Good
Avoid using drugs that may not be safe such as traditional medicines and steroids mixed, tonic supplement for the treatment or prevention of disease.	2.08	0.89	Moderate
Take antibiotics correctly, complete with	2.55	0.67	Good

meal follow by prescription.			
Buy drugs at the drugs store and always observe the label.	2.48	0.71	Good
Tell the symptoms or health problems when you buy medicine.	2.62	0.65	Good
Not take the drug in a few doses and short duration for relieve the symptoms only.	2.09	0.75	Moderate
Inform the medical staff that you have a history of drug allergy.	2.49	0.77	Good
Advised friends to buy and take the drug before going to see the doctor every time.	2.38	0.66	Good
Always go to see the doctor when get sick and never take drug without prescription.	2.39	0.63	Good
Buy the drug with packaging and labeling intact.	2.62	0.67	Good
Keep the drug away from light and heat.	2.75	0.53	Good
Not take the drugs that left from other.	2.63	0.70	Good
Stop take drug immediately after got side effects such as itch, redness, swelled.	2.12	0.95	Moderate
Not take medicines and dietary supplements regularly, even you have diseases such as diabetes mellitus, hypertension.	2.60	0.72	Good
Keep eye drops used in the refrigerator not	2.10	0.92	Moderate

more than one month for next using.

Not use eye drops, ear drops, along with other regularly.	2.71	0.68	Good
Not use the antibiotic pill grind into a fine powder or use capsules powder to sprinkle in the wound directly.	2.67	0.70	Good
Not continued use the syrup medicine when it has changed color or precipitated.	2.73	0.67	Good
Total	2.51	0.67	Good

4.4 Knowledge about drug prescription

In the study we evaluated the level of knowledge about drug prescription refer to medication that will take or are already taking which was cut-off points were classified. The number of samples that taken, taking the drug prescription and voluntary answer was 292 women which the result was found that 50% of them had the insufficient level of knowledge about drug prescription in terms of the name of prescribed medication, another medication, food or beverage avoiding while using the medication and so on. The result of this part can be the topic for health education plan to improve the drug use advice concern for the health personnel in the future (Table 21).

Table 21 The level of knowledge about drug prescription (n=292)

Level of knowledge about drug prescription	Age group n (%)			Total (n=292)
	45-49 (n=50)	50-54 (n=88)	55-59 (n=154)	
Insufficient level(0– 7)	35(70.0)	46(52.3)	65(42.2)	146(50.0)
Average level (8-10)	6(12.0)	19(21.6)	49(31.8)	74(25.3)
Good level (11-14)	9(18.0)	23(26.1)	40(26.0)	72(24.7)

4.5 Drug/medicine use pattern

In this part we mentioned about the overview of type of drug/medicine use, drug misuse pattern and association of drug misuse with independent variables as follow.

4.5.1 Overview of type of drug/medicine use

The overview of type of drug use were concluded that almost 60% of 411 participants were used drug/medicine, most of drug which were used in life time were anti-histamine, antihypertensive drug and muscle relaxant drug, respectively. And most types of drug which were used in last 7 days were antihypertensive drug and hypoglycemic agent drug, respectively (Table 22).

Table 22 Overview of type of drug use

Type of drug use	Lifetime n (%)	Last year n (%)	Last month n (%)	Last 20 days n (%)	Last 7 days n (%)
Hormone replacement	38(9.3)	31(7.6)	14(3.4)	14(3.4)	14(3.4)
Sleeping pill	35(8.5)	35(8.5)	21(5.1)	17(4.1)	7(1.7)
Antihypertensive	95(23.1)	95(23.1)	95(23.1)	95(23.1)	95(23.1)
Hypoglycemic agent	45(10.9)	45(10.9)	45(10.9)	45(10.9)	45(10.9)
Muscle relaxant	85(20.6)	81(19.8)	48(11.7)	22(5.3)	11(2.7)
Gout	3(0.7)	3(0.7)	3(0.7)	3(0.7)	3(0.7)
Anti-histamine drug	122(29.8)	74(18.0)	58(16.9)	43(10.5)	27(6.6)
Thai-traditional medicine (Thai herbal drink, bio-organic drink, alovera product, herbal tea)	58(14.1)	43(10.5)	39(9.5)	36(8.8)	28(6.8)
Vitamin/supplementary (Multi vitamin, B complex, vitamin C, protein, ginseng, Calcium, fish oil)	62(15.1)	49(12.0)	35(8.5)	28(6.8)	28(6.8)
Other(Anti-hyperlipidermic drugs, Paracetamol, Gastritis, Renal failure, Thyroid)	44(10.7)	43(10.5)	36(8.8)	38(9.2)	30(7.3)

The result of drug using revealed that 234 menopause women used drug/medicine at least 1 type from the total of 411 menopause women. Among 234 menopause, 1.4% or 6 participants were drug misuse only, 3.6% or 15 participants were drug misuse and also prescription use, 51.8% or 213 participants were prescription use only and 177 menopause did not use drug/medicine in last 1 year as shown in the table 23.

Table 23 Number of menopause women that were drug misuse and prescription use (n=411)

Drug use pattern	Age group n (%)			Total (n=411)
	45-49 (n=58)	50-54 (n=121)	55-59 (n=232)	
Drug misuse	0(0.0)	1(0.8)	5(2.1)	6(1.4)
Drug misuse and Prescription use	8(13.8)	2(1.6)	5(2.1)	15(3.6)
Prescription use	30(51.7)	61(50.4)	122(52.6)	213(51.8)
None	20(34.5)	57(47.1)	100(43.1)	177(43.0)

From the result of drug use revealed that a menopause woman had chance to obtained more than one type of drug/medicine and more types of drug use had more chance to misuse as shown in the table 23 the number of drug/medicine using per person found that 37.0% was 1 type of drug/medicine per person, 14.4% was 2 types, 4.9% was 3 types and 0.7% was 4 types per person and noticeable that the high number was in the end of menopause group (55-59 years old) more than other 2 groups (Table 24).

Table 24 Number of type of drug/medicine using per person classify by age group (n=411)

Number of drug/medicine using	Age groupn (%)			Total (n=411)
	45-49 (n=58)	50-54 (n=121)	55-59 (n=232)	
1 type	27(46.6)	46(38.0)	79(34.1)	152(37.0)
2 types	9(15.5)	13(10.7)	37(15.9)	59(14.4)
3 types	2(3.4)	5(4.1)	13(5.6)	20(4.9)
4 types	0(0.0)	0(0.0)	3(1.3)	3(0.7)
None	20(34.5)	57(47.1)	100(43.1)	177(43.0)

4.5.2 Drug misuse pattern

From the result of drug/medicine use of menopause women which were assessed by drug using standard guideline, the drug prescription and drug misuse definition in the study revealed that there were 342 drug/medicine uses totally, there were 21 drug/medicine uses (6.1%)were drug misuse, most of them was in age group 45-49 years old or 17.8% with 8 drugs/medicines and 93.9% were prescription use, most of them was in the middle menopause and the end of menopause group (96.9%and 95.0%)respectively as showed in the table 25.

Table 25 Number of type of drug/medicine that were misuse and prescription use classify by age group (n=342)

Drug use pattern	Age group n (%)			Total (n=342)
	45-49 (n=51)	50-54 (n=87)	45-49 (n=204)	
Drug misuse	8(17.8)	3(3.1)	10(5.0)	21(6.1)
Prescription use	43(82.2)	84(96.9)	194(95.0)	321(93.9)

According to the drug misuse result, there were 9 types of drugs/medicines that the participants used; there were 3 types of drugs/medicines that had misuse which consisted of antihypertensive drug, hypoglycemic agent drug and sleeping pill, most of drug that had misuse was hypoglycemic agent in the first of menopause group 45-49 years old and the end of menopause group (Table 26).

Table 26 Drug misuse in each type of drug/medicine (n=21)

Type of drug/medicine	Age group n(%)			Total (n=21)
	45-49 (n=8)	50-54 (n=3)	55-59 (n=10)	
Hormone replacement	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Sleeping pill	1(12.5)	1(33.3)	3(30.0)	5(23.8)
Antihypertensive	1(12.5)	0(0.0)	2(20.0)	3(14.3)
Hypoglycemic	6(75.0)	2(66.6)	5(50.0)	13(61.9)
Muscle relaxant	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Gout	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Anti-histamine	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Thai-traditional	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Vitamin/supplementary	0(0.0)	0(0.0)	0(0.0)	0(0.0)

The drug prescription use in each type of drug/medicine was found that most of drug/medicine that the participants were use was antihypertensive, anti-histamine and sleeping pill respectively as showed in the table 27 below.

Table 27 Prescription use in each type of drug/medicine (n=321)

Type of drug/medicine	Age group n (%)			Total (n=321)
	45-49 (n=43)	50-54 (n=84)	55-59 (n=194)	
Hormone replacement	4(9.3)	7(8.3)	3(1.5)	14(4.3)
Sleeping pill	7(16.3)	11(13.0)	15(7.7)	33(10.3)
Antihypertensive	3(6.9)	19(22.6)	70(36.0)	92(28.6)
Hypoglycemic	2(4.6)	9(10.7)	21(10.8)	32(9.9)
Muscle relaxant	0(0.0)	2(2.4)	20(10.3)	22(6.8)
Gout	0(0.0)	0(0.0)	3(1.5)	3(0.9)
Anti-histamine	11(25.6)	19(22.6)	28(14.4)	58(18.0)
Thai-traditional	8(18.6)	9(10.7)	22(11.3)	39(12.1)
Vitamin/supplementary	8(18.6)	8(9.5)	12(6.1)	28(8.7)

Considering the health behavior promotion among drug misuse group revealed that most of them had moderate level of awareness on health promotion (Table 28).

Table 28 The health behavior promotion level among drug misuse group (n=21)

Health behavior level	Age group n(%)			Total (n=21)
	45-49 (n=8)	50-54 (n=3)	55-59 (n=10)	
Low level of awareness on health promotion	0(0.0)	0(0.0)	0(0.0)	0(0.0)

Moderate level of awareness on health promotion	8(100.0)	3(100.0)	9(90.0)	20(95.2)
Good level of awareness on health promotion	0(0.0)	0(0.0)	1(10.0)	1(4.8)

According to the drug misuse data was found that in 21 menopauses that were drug misuse most of them had diabetes mellitus, not enough sleep and hypertension respectively as shown in the table 29.

Table 29 The number of the symptoms and diseases among drug misuse group (n=21)

Symptoms/diseases	n(%)
Not enough sleep	15(71.4)
Hypertension	5(23.8)
Diabetes Mellitus	16(76.1)

According to the data of health behavior on sleeping pattern was found that in 5 menopause that were drug misuse in sleeping pill, had 3 menopause were use sleeping pill unnecessary (without any symptoms) as shown in table 30.

Table 30 The sleeping pattern among drug misuse group and sleeping pill using (n=15)

Symptoms/diseases	Sleeping pill using n(%)	
	Misuse	Prescription
Not enough sleep	2(13.3)	9(60.0)
Sleep well	3(20.0)	0(0.0)

In drug misuse group had 5 menopauses that got hypertension and use anti-hypertensive drug, 3 menopauses were anti-hypertensive drug misuse as shown in table 31.

Table 31 The number of menopause who had hypertension and anti-hypertensive drug using (n=5)

Symptoms/diseases	Anti-hypertensive drug using n(%)	
	Misuse	Prescription
Hypertension	3(60.0)	2(40.0)

In drug misuse group had 16 menopauses that got diabetes mellitus and use hypoglycemic drug, 13 menopauses were hypoglycemic drug misuse as shown in table 32.

Table 32 The number of menopause who had diabetes mellitus and hypoglycemic drug using (n=16)

Symptoms/diseases	Hypoglycemic drug using n(%)	
	Misuse	Prescription
Diabetes Mellitus	13(81.5)	3(18.5)

4.5.3 Association of drug misuse with independent variables

The association of drug misuse with independent variables conducted by Chi-square test with the socio-demographic, health status, health behavior, health seeking, drug use practices and knowledge of prescription use. The socio-demographic were composed of age, education, occupational, monthly income, family income, health security scheme. The socio-demographic factors had significant association with drug misuse ($p< 0.05$) as shown in the table 33.

Table 33 Association of drug misuse with socio-demographic characteristics (n=234)

Characteristic	Drug use pattern n (%)		χ2 (df)	p- value
	Misuse (n=21)	Prescription (n=213)		
Age				
45-49	8(38.1)	30(14.1)	12.012(4)	0.017*
50-54	3(14.3)	61(28.6)		
55-59	10(47.6)	122(57.3)		
Marital status				
Single	0(0.0)	12(5.6)	12.377(8)	0.135
Married	17(81.0)	135(63.4)		
Separated	0(0.0)	12(5.6)		
Divorced	0(0.0)	13(6.1)		
Widowed	4(19.0)	41(19.2)		
Education				
Never went to school	0(0.0)	4(1.9)	32.295(12)	0.001*
Primary school	13(61.9)	72(33.8)		
Secondary school	1(4.8)	28(13.1)		
High school level	5(23.8)	29(13.6)		
Associated degree	0(0.0)	31(14.6)		
Bachelor degree	2(9.5)	38(17.8)		
Other (Grad 4, Master degree etc.)	0(0.0)	11(5.2)		

Occupational				
Unemployed	12(57.1)	64(30.0)	39.362(12)	0.000*
Farmer/agriculture	0(0.0)	10(4.7)		
Labor	1(4.8)	23(4.8)		
Employer	4(19.0)	9(4.2)		
Government officer	0(0.0)	60(28.2)		
Business	4(19.0)	45(21.1)		
Family status				
Leader	5(23.8)	70(32.9)	0.940(2)	0.625
Member	16(76.2)	143(67.1)		
Social status				
No social status	20(95.2)	146(68.5)	15.749(6)	0.015*
Leader of village	0(0.0)	13(6.1)		
Health volunteer	1(4.8)	41(19.2)		
Government admin.	0(0.0)	13(6.1)		
Religion				
Buddhist	20(95.2)	206(96.7)	1.532(4)	0.821
Christian	1(4.8)	7(3.3)		
Muslim	0(0.0)	0(0.0)		
Monthly income				
Less than 5,000	12(57.1)	77(36.2)	22.782(8)	0.004*
5,001 – 10,000	1(4.8)	51(23.9)		
10,001 – 20,000	4(19.0)	25(11.7)		
20,001 – 30,000	4(19.0)	25(11.7)		

More than 30,000	0(0.0)	35(16.4)		
Family income/month				
Less than 5,000	1(4.8)	21(9.9)	39.185(8)	0.000*
5,001 – 10,000	0(0.0)	33(15.5)		
10,001 – 20,000	11(52.4)	51(23.9)		
20,001 – 30,000	3(14.3)	24(11.3)		
More than 30,000	6(28.6)	84(39.4)		
Health security insurance scheme				
Universal coverage	5(23.8)	99(46.5)	24.620(8)	0.002*
Social security	4(19.0)	15(7.0)		
Civil service welfare system	11(52.4)	94(44.1)		
Other (Payment)	1(4.8)	3(1.4)		

*Significance at p-value < 0.05

The association of drug misuse with health status revealed that there was significant association between drug misuse and BMI (Body mass index) (p< 0.05) as shown in the table 34.

Table 34 Association of drug misuse with health status (n=234)

Health status	Drug use pattern (%)		χ2 (df)	p- value
	Misuse (n=21)	Prescription (n=213)		
Body Mass Index(BMI)				
BMI less than18.5 kg/m	0(0.0)	8(3.8)	20.058(8)	0.010*
BMI between18.5 – 22.9 kg/m2	5(23.8)	62(29.1)		
BMI between23– 24.9 kg/m2	2(9.5)	52(20.4)		
BMI between 25-29.9 kg/m2	13(61.9)	71(33.3)		

BMI more than 30 kg/m2	1(4.8)	20(9.4)		

*Significance at p-value < 0.05

There were significant association between drug misuse (p< 0.05) and health behavior consisted of physical activity, eating behavior (sweet, vegetable/fruit and coffee drinking) smoking and sleeping pattern as shown in table 35.

Table 35 Association of drug misuse with health behavior (n=234)

Health Behavior	Drug use pattern n (%)		χ2 (df)	p – value
	Misuse (n=21)	Prescription (n=213)		
Overview of health behavior promotion level				
Moderate level	20(95.2)	173(81.2)	2.710(2)	0.246
Good level	1(4.8)	40(18.8)		
Physical activity				
Work force				
Low work force(house, office work)	21(100.0)	157(73.7)	7.250(2)	0.027*
High work force(labor work)	0(0.0)	56(26.3)		
Exercise until heart beating and sweating at least 3 times per week and 30 minutes per time				
Never	1(4.8)	25(21.7)	18.071(6)	0.006*
Irregularly	18(85.7)	131(61.5)		
Exercise 1-3 time per week	0(0.0)	41(19.2)		
Exercise greater than, or equal 4 time per week	2(9.5)	16(7.5)		

Enough sleep				
Yes	6(28.6)	148(69.5)	19.350(2)	0.000*
No	15(71.4)	65(30.5)		
Eating behavior				
Milk, sprats or canned fish				
Someday(3-5days/week)	18(85.7)	176(82.6)	0.362(4)	0.985
Everyday	1(4.8)	18(8.5)		
Vegetables and/or fruits				
Someday(3-5days/week)	6(28.6)	100(46.9)	6.669(2)	0.036*
Everyday	15(71.4)	113(53.1)		
Meats, coconut milk curry, fried foods				
Someday(3-5days/week)	18(85.7)	165(77.5)	8.390(4)	0.078
Everyday	0(0.0)	6(2.8)		
Sweet foods, dessert, fruits or drinking				
Someday(3-5days/week)	8(38.1)	166(77.9)	34.221(4)	0.000*
Everyday	0(0.0)	8(3.8)		
Salty foods				
Someday(3-5days/week)	5(23.8)	106(49.8)	7.715(4)	0.103
Everyday	0(.0)	8(3.8)		
Tea	5(23.8)	100(46.9)	4.897(2)	0.086
Coffee	5(23.8)	141(66.2)	17.434(2)	0.000*
Energy drink	2(9.5)	21(9.9)	1.805(2)	0.406
Smoking	1(4.8)	0(0.0)	12.216(2)	0.002*
Alcohol drinking	3(14.3)	61(28.6)	2.801(2)	0.246

*Significance at p-value < 0.05

The associations between drug misuses with health seeking were found that the health seeking i.e. personal disease had significant association with drug misuse ($p< 0.05$) as shown in table 36.

Table 36 Association of drug misuse with health seeking (n=234)

Health seeking	Drug use pattern n (%)		$\chi 2$ (df)	p- value
	Misuse (n=21)	Prescription (n=213)		
Annual checkup	18(85.7)	179(84.0)	4.103(2)	0.129
Personal disease	18(85.7)	143(67.1)	93.048(2)	0.000*

*Significance at p-value < 0.05

The association between 21 menopauses that were drug misuse and had disease and the types of drug misuse were found that the diseases had no significant association as shown in the table 37.

Table 37 Association of 21 menopauses that were drug misuse and had disease with the types of drug misuse

Disease	Types of drug misuse n (%)		$\chi 2$ (df)	p- value
	Misuse	Prescription		
Association between disease and sleeping pill				
No	2(40.0)	0(0.0)	4.200(1)	0.110
Yes	3(60.0)	9(100.0)		
Association between disease and anti-				

hypertensive drug				
No	0(0.0)	0(0.0)	1.442(2)	0.486
Yes	3(100.0)	2(100.0)		
Association between disease and hypoglycemic drug				
No	0(0.0)	1(33.3)	4.622(1)	0.188
Yes	13(100.0)	2(66.7)		

*Significance at p-value < 0.05

The level of health behavior promotion had significant association with anti-hypertensive drug and hypoglycemic agent drug misuse (p< 0.05) as shown in the table 38.

Table 38 Association of health behavior level with the types of drug misuse

Health behavior	Types of drug misuse n (%)		χ2 (df)	p- value
	Misuse	Prescription		
Health behavior level and sleeping pill				
Moderate level	4(80.0)	9(100.0)	1.938(1)	0.357
Good level	1(5)	0(0.0)		
Health behavior level and anti-hypertensive drug				
Moderate level	3(100.0)	1(50.0)	6.964(2)	0.031*

Good level	0(0.0)	1(50.0)		
Health behavior level and hypoglycemic				
Moderate level	13(100.0)	2(66.7)	4.622(1)	0.032*
Good level	0(0.0)	1(33.3)		

*Significance at p-value < 0.05

The association between knowledge about drug prescription and drug misuse were found that the knowledge about drug prescription had significant association with drug misuse (p< 0.05) as shown in the table 39.

Table 39 Association of drug misuse with knowledge about drug prescription (n=170)

Level of knowledge about drug prescription	Drug use pattern n (%)		χ^2 (df)	p- value
	Misuse (n=11)	Prescription (n=159)		
Insufficient level (0– 7)	5(45.5)	66(41.5)	20.992(4)	0.000*
Average level (8-10)	5(45.5)	59(37.1)		
Good level (11-14)	1(9.1)	34(21.4)		

*Significance at p-value < 0.05

CHAPTER V

DISCUSSION, CONCLUSION AND RECCOMENDATION

The aim of the present study was to evaluate the drug misuse pattern among menopause population in Muang district, Ubon Ratchathani, Thailand which was conducted among 436 women using the menopause screening form to assessed the symptoms that occur during the transitional to menopause in the last 12 months at least one symptom. There were 411 women having menopause symptoms and natural amenorrhea which were the inclusion criteria of this study. Data collection used interview questionnaires. This chapter was composed of the discussion, conclusions and recommendations regarding the research findings.

5.1 Discussion

The result of this study revealed that more than 50% of the samples were age 55-59 years old and most of them were married (70%). About 40% had education on primary school, 16% on high school which more than 30% the occupational were unemployed, 20% had their own business and another 20% were government officer. About the family status, almost 70% were family member. 75% had no social status; 15% were health volunteer. Almost all of them with 90% were Buddhist, 40% of them had monthly income less than 5,000 Baht and almost 30% of them had family income more than 30,000 Baht. About the health security insurance scheme, half of them were getting Thailand health insurance scheme from the government and almost 40% were getting from the civil service welfare system.

The health status of participants had average BMI = 24.5 kg/m^2 follow by assessment criteria BMI between 23-24.9 kg/m^2 mean they were overweight in level 1 and more than 60% of them were overweight conform to the report of the Department of Health, reported that the menopause population is the deterioration of physical, mental and bodily function can effect health status by increasing susceptibility of getting diseases/illnesses such as obesity, diabetes and behaviors problems (1). Similarly to the result of the study of Antonio et al., 2008, they studied on epidemiological of risk factors and symptoms related with menopause in Spanish women aged 45-65 years. There were 10,514 menopause women having the menopausal symptoms which were composed of osteoporosis (67.6%) and cardiovascular (74.8%). The majority of common risks are physical inactivity (53.6%) and obesity (44.3%), hypertension (36.6%) and high cholesterol (31.4%), low calcium intake (30.1%) and smoking (28.7%).

The health behaviors in this study mentioned about physical activity, eating behavior, sleeping pattern, smoking and alcohol drinking. Overview of health behavior of the menopause was rated and classified by mean revealed that most of them had moderate level of awareness on health behaviors promotion. Considering the age group of 45-49 years old had the highest work force level of other groups; inversely the age group of 55-59 years old had the lowest work force level. More than 50% of participants exercised until heart beating and sweating at least 3 times per week and 30 minutes per time irregularly and only 18% of them exercised 1-3 times per week regularly. The result of sleeping pattern showed that 20% of them were sleepless and 5% needed sleeping pill. The result of eating behaviors showed

that more than 80% of them ate sprats or can fish and drink milk 3-5 days per week, 50% of them ate vegetable and/or fruit every day, more than 80% ate meat, coconut milk curry or fried food 3-5 days per week, almost 80% ate sweet food, dessert, fruit or sweet drinking 3-5 days per week, 50% of them ate salty food 3-5 days per week, more than 50% of them not drink tea, more than 80% of them not drink energy drink but more than 60% drink coffee and almost half of them drink everyday average 1 cup per day. About smoking behavior, most of them no smoking; only 2% smoked every day and most of them smoked 5 cigarettes per day. Considering alcohol drinking, the result found that almost 30% of participants drink alcohol, the overall average age that had started to drink alcohol was 27 years old, majority was age group 50-54 years old which the type of alcohol drinking in last month in the most was beer, frequency of drinking about 1-2 times per month, 80% of them had amount of drinking 1 standard drink per day and 15% of age group 55-59 years old were drinking more than 2 standard drinks per day and type of alcohol drinking in last week in the most was beer, majority was age group 50-54 years old, frequency of drinking 1 time per week and most of them had amount of drinking 1 standard drink per day and more than 50% of age group 55-59 years old had drinking more than 2 standard drinks per day. Similarly to the study of Antonio et al., (2008), they studied on epidemiological of risk factors and symptoms related with menopause in Spanish women aged 45-65 years, 10,514 women had the risk for menopausal symptoms with osteoporosis (67.6%) and cardiovascular (74.8%). The majority of common risks are physical inactivity (53.6%) and obesity (44.3%), hypertension (36.6%) and high cholesterol (31.4%), low calcium intake (30.1 %) and smoking (28.7%). The most common symptoms were hot flashes (51.4%), insomnia

(45.7%), and irritability (42.2%), respectively. And also conform to the result of the study of Piyanoot Phansiri, 2011 (3) that studied on menopause and andropause's health behavior of seven province in north-eastern, Thailand found that the most symptom occur in hormone levels changes period were muscle-joint pain (25.7%), hot flash (16.5%) and insomnia (15.1%); 63.6% used sleeping pill.

The result of health seeking in this study was found that almost 50% of them have got the personal disease, most of them had got hypertension, diabetes mellitus and gastritis respectively which in age group 55-59 years old had most personal disease which the results conform to the report of the Department of Health, 2009 reported that the menopause population is the deterioration of physical, mental and sexual hormones changes due to health problems. In addition, bodily function can affect health status by increasing susceptibility of getting diseases/illnesses such as obesity, diabetes, hormone deficiency, decrease in bone mass density, hypertension, heart disease, cancer, stress, insomnia, sexuality, occupational health and genetic health behaviors problem. The result also identical to the result of the study of Antonio et al., (2008),they studied on epidemiological of risk factors and symptoms related with menopause in Spanish women aged 45-65 years, 10,514 women found that women in menopause are risk for menopausal symptoms were osteoporosis (67.6%) and cardiovascular (74.8%). The majority of common risks are physical inactivity (53.6%) and obesity (44.3%), hypertension (36.6%) and high cholesterol (31.4%), low calcium intake (30.1%) and smoking (28.7%). And also conform to the result of the study of Phansiri et al., (2011) (3), they studied on menopause and andropause's health behavior of seven province in north-eastern, Thailand; they found that the most symptom occur in hormone levels changes period were muscle-

joint pain (25.7%), hot flash (16.5%) and insomnia (15.1%); 63.6% of insomnia used sleeping pill.

In this study we assessed the drug/medicine using, the places that usually obtain drug/medicine, information receiving and type of drug/medicine that using in term of the menopause symptoms or chronic disease. The result was found that the places that they were usually obtain drug/medicine were more than 60% from the hospital and 20% from pharmacy. About the drug/medicine using information receiving was found that almost 90% of them received the information and almost 80% of them were received the drug information from the health personnel, 50% from TV and 40% from family members respectively. Niran Tiasuwan, 2008 (6) reported that advertising for medication is done via radio, television in Thailand and the dealers find it easy to sell medications in the rural area and communities. These factors may make people have chance to take unnecessary medicine or overdose.

The awareness of drug use practices showed mean ($\bar{x}$) and standard deviation (S.D.) of the result was found that the top five in good level of drug use practices were item number 2 follow the medicine instruction on the label before use($\bar{x}$=2.90), number 1 read the drug label before use($\bar{x}$=2.86), number 13 keep the drug away from light and heat($\bar{x}$=2.75), number 20 stop use the syrup medicine if it has changed color or precipitated ($\bar{x}$=2.73) and number 18 not use eye drops, ear drops along with other($\bar{x}$=2.71) respectively. For the drug use practices that had moderate level of awareness drug use practices were number 4 avoid use drug that may not be safe such as traditional medicine and steroids mixed, tonic supplement for treatment or prevention of disease ($\bar{x}$=2.08) , number 8 not take drug in a few doses and short duration for relieve the symptom ($\bar{x}$=2.09), number 17 keep eye drops after used in

the refrigerator not more than one month for next using($\bar{x}$=2.10) and number 15 stop take drug immediately after got side effects such as itch, redness, swelled ($\bar{x}$=2.12) which the 4 items will be use to be the topic for health education plan to improve more awareness of people in terms of drug use practices in the future.

In the study we evaluated the level of knowledge about drug prescription refer to medication that will take or are already taking which was cut-off points were classified. The number of samples that taken and taking the drug prescription was 292 women which the result was found that 50% of them had the insufficient level of knowledge about drug prescription in terms of the name of prescribed medication, another medication, food or beverage avoiding while using the medication and so on. The result of this part can be the topic for health education plan to improve the drug use advice concern for the health personnel in the future.

Drug misuse pattern

The study showed overview of type of drug use was found that almost 60% of participants were used drug/medicine, most of drug that there were used in life time were anti-histamine, antihypertensive drug and muscle relaxant drug respectively. And most type of drug that there were used in last 7 days are antihypertensive drug and hypoglycemic agent drug respectively. The number of drug/medicine using per person was found that 37% of participants used 1 type of drug/medicine, 14% used 2 types, 5% used 3 types and 1% used 4 types. Most of them were in age group 55-59 years old identical to Linjakumpu, T. et al., 2002 (24) study on the use of medications and polypharmacy are increasing among the elderly.

The increasing number of drugs and polypharmacy (use concominant than five doses) increased as well. These changes are most prominent among those aged 85 years or over, particularly among women polypharmacy is a complex phenomenon and concerns that merit more research.

Drug misuse result in the study revealed that in 411 menopause women had who used drug/medicine at least 1 type was 234 menopause, in this group was found that 1.4% or 6 participants were drug misuse only, 3.6% or 15 participants were drug misuse and also prescription use and 51.8% or 213 participants were prescription use only. The menopause woman had chance to obtained more than one type of drug/medicine, the number of drug/medicine using per person found that 44% was 1 type of drug/medicine per person, 17% was 2 types, 6% was 3 types and 1% was 4 types per person and noticeable that the high number was in the end of menopause group (55-59 years old) more than another 2 groups. From the result of drug/medicine use of menopause women assessed by drug using standard guideline and the drug prescription revealed that there were 342 drugs/medicines used totally, there were 21 drug/medicine used (6.1%) were drug misuse, most of them was in age group 45-49 years old or 17.8% with 8 drugs/medicines and 93.9% were prescription use, most of them was in the middle menopause and the end of menopause group (96.9%, 95.0%) respectively.

According to the drug misuse result was also found that had 9 types of drugs/medicines that the participants were use, there were 3 types of drugs that had misuse were antihypertensive drug, hypoglycemic agent drug and sleeping pill, most of drug that had misuse was hypoglycemic agent in age group 45-49 years old. About the amount and frequency of drug use in case that use antihypertensive and

hypoglycemic drug were take more than prescription when they forget to take in a day and sometime they need to buy drug without prescription as the drugs finished before appointment date, in case that misuse on sleeping pill were take more dose if they still not sleep, buy and use without prescription by the reason that they had sleepless and simplicity to buy at the drug store. The result conform to the report of Kampol Sriwatanakul,2 001 (4) was found that the populations between the ages 15-60 years take medication without prescriptions to relieve symptoms for various illnesses, by purchasing from pharmacies/drug stores and other methods. There are a number of medication users who are not aware of the restrictions and the risk of medication use without prescription, Patcharaporn Panyawuttikrai, 2004 (5) studied on prescription use behaviors in Thailand and the services of pharmacy it was found that people would go to their local pharmacy for minor illness without having a prescription from their physician people especially in rural areas where they are not concern any restrictions and Hsiu-Yun Lai et al., 2009(25) research about the prevalence of the prescribing of potentially inappropriate medications at ambulatory care visits by elderly patients covered by the Taiwanese National Health Insurance program found that the frequency of potentially inappropriate medication prescribing declined over the study period, 62.5% of elderly patients were exposed to such medications in 2004. The most commonly prescribed types of potentially inappropriate medications were antihistamines (4.8% of all prescriptions in 48.3% of elderly patients), muscle relaxants/antispasmodics (4.0% and 40.3%, respectively).

This study also revealed the association between drug misuse with independent variables conducted by Chi-square test with the socio-demographic, health status, health behavior, health seeking, drug use practices and knowledge of

prescription use. The result was found that the age, education, occupational, monthly income, family income, health security scheme had significant association with drug misuse ($p < 0.05$). The association of drug misuse with health status was found that health status was BMI (Body mass index) had significant association with drug misuse ($p<0.05$). The overview level of awareness of health behaviors had not significant association with drug misuse but in each items were physical activity, eating behavior (sweet, vegetable/fruit and coffee drinking) smoking and sleeping pattern had significant association with drug misuse ($p<0.05$). The health seeking were personal disease had significant association with drug misuse ($p< 0.05$) and the knowledge about drug prescription also had significant association with drug misuse ($p< 0.05$).

The result also revealed that in drug misuse group (21 menopauses) had 18 menopauses (85.7%) that got diseases and the level of awareness of health behavior had significant association with 2 types of drug misuse (anti-hypertensive and hypoglycemic agent drug). The Department of health, 2011 (1) also had study reported of the relationship of the factors that influence health behaviors of menopause and andropause people in Thailand found that congenital disease, necessary drug used, current illness, testosterone hormone deficiency and stress are associated with menopause and andropause health behavior identical to the study of Leonard J. Paulozzi, 2012 (20) reported the results of the epidemics of prescription drug overdoses are a host of factors, including low-income, middle-aged males and mental health issues. Incomplete understanding of overdoses of prescription drugs to prevention effort that were related with the objective of research topic to determine the uses for prescription pattern among menopausal which are middle-age group.

5.2 Benefits of the Study

The result of the study can be the baseline data of drug misuse may be used by local health personnel and they may tailor their services and support to menopause unmet needs. This study can implement for public health services improvement in the local areas and community. The result of this study can indicate the pattern of drug misuse which may be used for menopause health promoting intervention on people regarding to drug misuse problems. The results of this study can be applied in the further research that related to pattern of drug misuse among menopause. And advantages to this study are that we were collected information from a sample of the population, which is cost effective and less time consuming.

5.3 Limitation of the study

The study cannot be generalized to the large population. The sample of this study was specifically only the sample that had menopause symptom by screening form not include sample in age 45-59 years that had no any symptoms. One disadvantage is that if we do not get a representative sample of the larger population, this could make results invalid and cannot be generalized to the large population.

5.4 Recommendation

5.4.1 Recommendation for implementer

The result showed that in menopause group needs more knowledge about drug prescription use to capacity the awareness in drug/medicine using which the result of the study also can be the baseline data of drug misuse may be used by local health personnel and may tailor their services and support to menopause unmet needs such as improve awareness of health behavior that influencing with

health status and health seeking, improve knowledge and awareness of prescription use among the people who got disease, implement for public health services improvement in the local areas and community, used for menopause health promoting intervention on people regarding to drug misuse problems.

5.4.2 Recommendation for further research

1. Drug misuse among andropause populations or all age group should be conduct in the future to evaluate drug misuse in another age group and also another area such rural area.

2. Factors that related with drug misuse to determine the influencing factors with drug misuse.

3. A qualitative research is recommended such as in-depth interview or focus group discussion should be conduct among drug misuse group to study more for the reason or factor that influence with drug misuse.

REFERENCES

REFERENCES

1. Thailand, Ministry of Public Health. Department of Health (2011).**Annual Health Report 2011**.
2. Perez, J. A., Garcia, F. C., Palacios, S., & Perez, M. (2009).**Epidemiology of risk factors and symptoms associated with menopause in Spanish women**. Maturitas, 62(1): 30-36.
3. Piyanoot Phansiri. (2011). **Menopause and andropause's health behavior of seven provinces in north-eastern, Thailand**. Thailand Department of Health.
4. Kampol Sriwatanakul. (2001). **Medication use guideline.** Skyline Publishing, Bangkok. 3rd Published.
5. Patcharaporn Panyawuttikrai. (2004). **The pharmacy store evaluation to create public health insurance.** Pharma Time Journal, 2(14): 41-43.
6. Niran Tiasuwan. Editor. (2008). **FDA Journal relates.** FDA Thailand Ministry of Public Health Volume 28: 337.
7. Witaya Kulsomboon and Wanna Sriwiriyanupap. (2007). **The Office of the Consumer Protection Board and The Food and Drug Administration Annual Report 2006.** Thailand Ministry of Public Health.
8. Bureau of Epidemiology (2006).**Annual Epidemiology Report 2006.**Thailand Ministry of Public Health.
9. Thailand, Department of the Interior census (2011). **Population and housing census.** National statistical advanced report.

10. Hernandez, S. H., & Nelson, L. S. (2010). **Prescription drug abuse: insight into the epidemic.** [Review]. Clin Pharmacol Ther, 88(3): 307-317.
11. United Nations. (2007). **World Population Prospects**: The 2006 Revision.NewYork: Population Division, Department of Economic and Social Affairs, United Nations.
12. Rosenstoch, I. (1974). **Historical Origins of the Health Belief Model.** Health Education Monographs Vol. 2 No. 4.
13. Glanz, K., Rimer, B.K. & Lewis, F.M. (2002). **Health Behavior and Health Education. T heory, Research and Practice**. San Francisco: Wiley & Sons.
14. Conner, M. & Norman, P. (1996). **Predicting Health Behavior. Search and Practice with Social Cognition Models**. Appetite, 27(2): 135-150.
15. Becker, M.H. (1974). **The Health Belief Model and Personal Health Behavior**. Health Education Monographs. Vol. 2 No. 4.
16. Edelman, D. et al.(1999). **A comparison of three health status measures in primary care outpatients.**[Comparative Study]. J Gen Intern Med, 14(12): 759-762.
17. Henry P Sims Jr. and Charles C Manz (1982). **Modeling Influences on Employee Behavior**. Personnel Journal (January *1982*): 58-65.
18. SupornTermsap. (2009). **Enhancing the awareness in medicine using of people in Wang-Sammor district, UdonThani, Thailand**. Udon Thani Rajabhat University.
19. Frohlich, S.E., Dal PizzolTda, S., &Mengue, S.S. (2010). **Instrument to evaluate the level of knowledge about prescription in primary care.**[Evaluation Studies]. Rev SaudePublica, 44(6): 1046-1054.

20. Paulozzi, L.J. (2012). **Prescription drug overdoses: a review**. [Research Support, U.S. Gov't, P.H.S.]. J Safety Res, 43(4): 283-289.

21. Cannon, K. T., Choi, M. M., & Zuniga, M. A. (2006). **Potentially inappropriate medication use in elderly patients receiving home health care: a retrospective data analysis.** [Research Support, Non-U.S. Gov't]. Am J Geriatr Pharmacother, 4(2): 134-143.

22. Kaewpan, W., Kalampakorn, S., &Luksamijarulkul, P. (2007).**Factors related to health-promoting behaviors among Thai middle-aged men.**[Research Support, Non-U.S. Gov't]. J Med Assoc Thai, 90(9): 1916-1924.

23. Li, L., Wu, J., Pu, D., Zhao, Y., Wan, C., Sun, L., Zhang, M. (2012). **Factors associated with the age of natural menopause and menopausal symptoms in Chinese women**. Maturitas, 73(4): 354-360.

24. Linjakumpu, T., Hartikainen, S., Klaukka, T., Veijola, J., Kivela, S. L., &Isoaho, R. (2002). **Use of medications and polypharmacy are increasing among the elderly.**[Research Support, Non-U.S. Gov't]. J ClinEpidemiol, 55(8): 809-817.

25. Lai, H. Y., Hwang, S. J., Chen, Y. C., Chen, T. J., Lin, M. H., & Chen, L. K. (2009). **Prevalence of the prescribing of potentially inappropriate medications at ambulatory care visits by elderly patients covered by the Taiwanese National Health Insurance program.** [Research Support, Non-U.S. Gov't].ClinTher, 31(8): 1859-1870.

26. Krejcie, Robert V. and Daryle W. Morgan. (1970). **Determining Sample Size for Research Activities Education and Psychological Measurement**. (November): 607 – 609.

27. Department of Provincial Administration, 2011

28. Walker, S.N., Sechrist, K.R. and Pende, N.J. (1987) **The health–promoting lifestyle profile II: development and psychometric characteristics.** Nursing Research.36, 2 (Feb): 76-81.

APPENDICES

APPENDIC A Questionnaire (English Version)

Menopause screening form

Menopause screening form used to assess the symptoms that occur during the transitional to menopause during the past 12 months. Please fill ✓ in the box according to the samples answers. (Department of Health, Thailand)

1. Age _____ Years.
2. Natural amenorrhea at aged _____ Years.

No.	Menopause transitional symptoms	Severe 4-7 days/week	Moderate 2-3 days/week	Mild 1day/week/month	None
1	Hot flashes				
2	Sweat at night time				
3	Short memory, uninterested surrounding				
4	Poor sleep, insomnia				
5	Fatigue				
6	Mood swings, stress, anxiety				
7	Gum or tooth problems				
8	Muscle/joint pain				
9	Dry skin/hair, brittle nails				
10	Frequent urination				
11	Dyspareunia				
12	Urinary incontinence				
13	Sexual problem				
14	Low self-confidence and afraid to stay in the public				

(Department of Health, 2011)

Questionnaire

Topic: Drug Misuse among Menopause Population in Muang District, UbonRatchathani, Thailand.

Case number_____

Interviewer's name_____ Date _____

Part 1 Socio-demographic characteristics

1.1 Marital status

☐ Single ☐Married ☐ Separated

☐Divorced ☐ Widowed ☐ Other (specify) _____

1.2 Education

☐ Never goes to school ☐Primary school ☐Secondary school

☐High school level ☐Bachelor degree ☐Other (specify) _____

1.3 Occupation

☐ Unemployed ☐ Farmer/agriculture ☐ Labor

☐ Employer ☐ Government officer ☐ Business

☐Other (specify) _____

1.4 Family status

☐ Leader ☐ Member

1.5 Social status

☐ No social status ☐Leader of village ☐ Health volunteer

☐ Government administrator ☐ Local administration officer

1.6 Religion

☐ Buddhist ☐Christian ☐Muslim

☐ Other (specify) _____

1.7 Income per month _____baht/month

1.8 Family income per month (total family income per month) _____baht/month

1.9 Health security insurance scheme

☐ Universal coverage scheme ☐ Social security scheme

☐ Civil service welfare system ☐ Other (specify)_____

Part 2: Health status, Health seeking and Health behavior

Health status

2.1 Body weight _____ kgs.

2.2 Height _____ cms. (BMI = _____)

Health seeking

2.3 Annual checkup ☐ No ☐ Yes

☐more than one year, (specify year) _____

☐in 2012, __ time per year, (specify month) ____

☐last month, (specify month) _____

2.4 Personal disease (Doctor's diagnosis)

☐No

☐ Yes

☐ Diabetes mellitus Treatment at ☐ Hospital ☐Private clinic ☐Drug store

Follow up every ☐ 1 month ☐ 3 months ☐6 months ☐When necessary

☐ Hypertension Treatment at ☐ Hospital ☐Private clinic ☐Drug store

Follow up every ☐ 1 month ☐ 3 months ☐6 months ☐When necessary

☐ Gastritis Treatment at ☐ Hospital ☐Private clinic ☐Drug store

Follow up every ☐ 1 month ☐ 3 months ☐6 months ☐When necessary

☐ AsthmaTreatment at ☐ Hospital ☐Private clinic ☐Drug store

Follow up every ☐ 1 month ☐ 3 months ☐6 months ☐When necessary

☐ Arthritis Treatment at ☐ Hospital ☐Private clinic ☐Drug store

Follow up every ☐ 1 month ☐ 3 months ☐6 months ☐When necessary

☐ GoutTreatment at ☐ Hospital ☐Private clinic ☐Drug store

Follow up every ☐ 1 month ☐ 3 months ☐6 months ☐When necessary

☐ Renal failure Treatment at ☐ Hospital ☐Private clinic ☐Drug store

Follow up every ☐ 1 month ☐ 3 months ☐6 months ☐When necessary

☐ Other (specify) ___Treatment at☐ Hospital☐Private clinic☐Drug store

Follow up every ☐ 1 month ☐ 3 months ☐6 months ☐When necessary

Health behavior

2.5 Have you done these things during one month ago?

Eating behavior

2.5.1 Drink milk, sprats or canned fish

☐ No ☐ 1-3 days/week ☐ Everyday

2.5.2 Eat vegetables and/or fruits

☐ No ☐1-3 days/week ☐ Everyday

2.5.3 Eat some kind of food such as lean meats, coconut milk curry, fried foods

☐ No ☐1-3 days/week ☐ Everyday

2.5.4 Eat sweet foods, dessert, fruits or drinking

☐ No ☐1-3 days/week ☐ Everyday

2.5.5 Eat salty foods

☐ No ☐1-3 days/week ☐ Everyday

2.5.6 Do you drink tea or coffee?

☐ No ☐ Yes

☐1-3 days/week

☐ Everyday about ——— cup per day

2.5.7 Do you drink energy drink?

☐ No ☐ Yes

☐1-3 days/week

☐ Everyday about _____ cup per day

Physical activity

2.5.8 How much the level of work force that you have to work daily?

☐ Low work force (such as office, general affairs)

☐ High work force (such as agriculture, farmer, construction workers employed)

2.5.9 Physical activities or exercise until heart beating and sweating at least 3 times per week and 30 minutes per time

☐ Never ☐ Irregularly ☐ 1-3 days per week ☐≥ 4 days per week

Sleep pattern

2.5.10 Do you have enough sleep or not?

☐ No ☐ Yes

2.5.11 How was your sleep?

☐ Sleep well ☐ Sleepless ☐ Sleep but need to take sleeping pill

☐ Every night

☐ Sometime

Smoking

2.5.12 Smoking

☐ No ☐Yes

☐Someday, How many cigarettes per day? _____Cigarettes

☐Everyday, How many cigarettes per day? _____Cigarettes

Alcohol drinking

2.5.13 Alcohol drinking ☐ No

☐ Yes, age at first drink ____years

Alcohol drinking	Lifetime		Last year		Last month		Last week	
	No	Yes	No	Yes	No	Yes	No	Yes
1. Beer								
2. Whisky								
3. White Spirit								
4. Other(specify)								
5. Other(specify)								

2.5.14 Type of drinking last month_____amount_____ Frequency____per month

2.5.15 Type of drinking last week _____amount_____ Frequency____perweek

Part 3: Drug/medicine use

1. Where is the place that you were often to buy or get drug/medicine?

☐Stores /Supermarket ☐ Pharmacy ☐ Direct sales

☐Private health clinic ☐ Hospital ☐ Mobile market

☐Other (specify) _____

2. Have you ever receiving the drug/medicine use information?

☐ No(skip to next part)

☐ Yes (multiple choice)

☐ Family ☐ Radio ☐ Friends

☐ TV ☐Health personnel ☐ Poster/leaflets

☐ Newspaper/magazine ☐ Internet ☐ Hotline 1556

☐ Other(specify) _____

3.1 Drug or medicine use with chronic disease or symptoms. If yes please fill ✓ in the box according to the samples answer below, *if no go to the questions 3.3*

Type of drug	Lifetime		Last year		Last month		Last 20 days		Last 7 days	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
1. Hormone replacement										
2. Sleeping pill										
3. Hypertension										
4. Diabetes Mellitus										
5. Muscle relaxant										
6. Gout										
7. Anti-histamine drug										
8. Thai-traditional medicine										
9. Other(specify)										
10. Other(specify)										
11. Other(specify)										
12. Other(specify)										

3.2 Please fill the answers according to the samples' information above.

Drug's type	Prescription					Without prescription				
	Setting			Amount(pill) Per time	Frequency Per day	Setting		Amount (pill) Per time	Frequency Per day	Reason (Why need)
	Hospital	Drug store	Other (specify)			Drug store	Other (specify)			
1. Hormone replacement										
1.1 Angeliq										
1.2 Other										
2. Sleeping pill										
2.1 Diazepam 2 mg.										
2.2 Diazepam 5 mg.										
2.3 Other										
3. Hypertension										
3.1										
3.2										

Drug's type	Prescription					Without prescription				
	Setting			Amount(pill) Per time	Frequency Per day	Setting		Amount (pill) Per time	Frequency Per day	Reason (Why need)
	Hospital	Drug store	Other (specify)			Drug store	Other (specify)			
4. Diabetes Mellitus										
4.1 Metformin										
4.2 Glibenclamide										
4.3 Other										
5. Muscle relaxant										
5.1 Diclofenac										
5.2 Norgesic										
5.3 Other										
6. Gout										
6.1										
6.2										

Drug's type	Prescription					Without prescription				
	Setting			Amount(pill) Per time	Frequency Per day	Setting		Amount (pill) Per time	Frequency Per day	Reason (Why need)
	Hospital	Drug store	Other (specify)			Drug store	Other (specify)			
7. Anti-histamine drug										
7.1										
7.2										
8. Thai-traditional medicine										
8.1										
8.2										
9. Other(specify)										
10. Other(specify)										
11. Other(specify)										
12. Other(specify)										

3.3 Drug/medicine pattern

Instruction: The following questions concern information about your drug/medicine use practices during the past 12 months. Please fill ✓ in the box according to the samples' answers.

Drug use pattern	Frequency		
	Regularly	Sometimes	Never
1. You read the drug label before use.			
2. You follow the instructions on the medicine label before use.			
3. You chose to buy the drug from a pharmacy that shows the label "Best drugs quality" from the drugstore.			
4. You avoid using drugs that may not be safe such as traditional medicines and steroids mixed, tonic supplement for the treatment or prevention of disease.			
5. You take antibiotics correctly, complete with meal follow by prescription.			
6. You buy drugs at the drugs store without observing any label.			
7. You only tell the name of drug to pharmacy but did not tell symptoms or health problems when you buy medicine.			
8. You have taken the drug in a few doses and short duration for relieve the symptoms only.			
9. You inform the medical staff that you have a history of drug allergy.			
10. You had advised your friends to buy and take the drug before going to see the doctor every time.			

Drug use pattern	Frequency		
	Regularly	Sometimes	Never
11. You always go to see the doctor when get sick and never take drug without prescription.			
12. You buy the drug with packaging and labeling intact.			
13. You keep the drug away from light and heat.			
14. You take the drugs that left from other.			
15. You stop take drug immediately after got side effects such as itch, redness, swelled.			
16. You take medicines and dietary supplements regularly, even you have diseases such as diabetes mellitus, hypertension.			
17. You keep eye drops used in the refrigerator not more than one month for next using.			
18. You use eye drops, ear drops, along with other regularly.			
19. You grind the antibiotic pill into a fine powder or use capsules powder to sprinkle in the wound directly.			
20. Your continued use of the syrup medicine although it has changed color or precipitate.			

3.4 Knowledge about drug prescription

The following questions refer to medications that the samples will take or are already taking. If there is more than one prescribed medication, the first one in the medical prescription received will be considered for the following questions to be answered.

Question		Answer
1.	What is the name of prescribed medication?	1 - Does not know 2 - _____(specify)
2.	What did doctor prescribed this medication for?	1 - Does not know 2 - _____(specify)
3.	What is the dosage of medication that you should take?	1 - Does not know 2 - _____(specify)
4.	What are times that you should take the medication?	1 - Does not know 2 - _____(specify)
5.	For how long should you take the prescribed medication?	1 - Does not know 2 - _____(specify) 3 - Undefined
6.	How should you use the prescribed medication?	1 - Does not know 2 - _____(specify)
7.	What should you do if you miss one or more dosage?	1 - Does not know 2 - _____(specify)
8.	Is there another medication, food or beverage that you should avoid while using this medication?	1 - If yes, which? (specify) _____ 2 - No 3 - Does not know

Question		Answer
9.	Can this medication cause side effects?	1 - If yes, which? ———— (specify), go to question 10 2 - No, go to question 11 3 - Does not know, go to question 11
10.	Have you ever felt any these side effects?	1 – Yes 2 – No
11.	Do you need more information to take your medication?	1 - Yes, go to question 12 2 – No
12.	What information do you need?	
	12.1 How to take the medication?	1 – Yes 2 – No
	12.2 For how long you need to take the medication.	1 – Yes 2 – No
	12.3 If the medication could cause any side effects.	1 – Yes 2 - No

APPENDIC B Questionnaire (Thai Version)

แบบสัมภาษณ์เพื่อคัดกรองภาวะขาดฮอร์โมนเพศหญิง

คำชี้แจงแบบสัมภาษณ์เพื่อคัดกรองภาวะขาดฮอร์โมนเพศหญิงนี้ใช้เพื่อการประเมินอาการที่เกิดขึ้นในสตรีที่อยู่ในช่วงหมดประจำเดือนโดยธรรมชาติอย่างน้อย 1 ปี

1. อายุ _____ ปี(หรือปี พ.ศ.ที่เกิด_____)
2. หมดประจำเดือนโดยธรรมชาติเมื่ออายุ ปี

โปรดเติมข้อความ และทำเครื่องหมาย ✓ ลงในตารางสำหรับข้อความที่ตรงกับผู้ให้สัมภาษณ์โดยใช้คำถามว่า ในระยะเวลา 1เดือนที่ผ่านมานี้ ท่านมีอาการ พฤติกรรม หรือความรู้สึกต่อไปนี้มากน้อยเพียงใด

ไม่มี หมายถึง ไม่มีอาการดังกล่าวเกิดขึ้นเลย

เล็กน้อย หมายถึง 1) มีอาการเกิดขึ้นนานๆครั้งครั้งต่อสัปดาห์ หรืออย่างน้อยเดือนละครั้ง (

ปานกลาง หมายถึง (วันต่อสัปดาห์ 3-2 โดยเฉลี่ย) มีอาการเกิดขึ้นเกือบทุกวัน

มาก หมายถึง 7-4 โดยเฉลี่ย) มีอาการเกิดขึ้นเกือบทุกวันวันต่อสัปดาห์(

ลำดับ	อาการที่เกิดขึ้น ในช่วงระยะเวลาของการหมดประจำเดือน	มาก 4-7 วัน/สัปดาห์	ปานกลาง 2-3 วัน/สัปดาห์	เล็กน้อย 1 วัน/สัปดาห์	ไม่มี
1	อาการร้อนวูบวาบ				
2	เหงื่อออกมากตอนกลางคืน				
3	หลงลืมง่าย ขาดความสนใจต่อสิ่งต่างๆ				
4	นอนหลับยาก และหลับไม่สนิท				
5	อ่อนล้า เพลีย ไม่มีกำลัง				
6	เครียด หรือ หงุดหงิดง่าย				
7	มีปัญหาเรื่องเหงือก หรือ ฟัน				
8	ปวดตามกล้ามเนื้อและข้อ				
9	ผิวแห้ง ผมแห้ง เล็บเปราะบาง				
10	ปัสสาวะบ่อย				
11	กลั้นปัสสาวะไม่อยู่ ปัสสาวะเล็ด				
12	ช่องคลอดแห้ง แสบ คัน				
13	มีปัญหาเรื่องเพศ เช่น ความต้องการทางเพศลดลง หรือ รู้สึกเจ็บเวลามีเพศสัมพันธ์				
14	ขาดความเชื่อมั่นในตนเอง กลัวที่จะอยู่ในที่สาธารณะ				

แบบสอบถาม เรื่อง การใช้ยาในทางที่ผิดในกลุ่มหญิงวัยหมดประจำเดือนในอำเภอเมือง

จังหวัดอุบลราชธานี

รหัสกลุ่มตัวอย่าง_____

ชื่อผู้สัมภาษณ์_____ วันที่สัมภาษณ์ _____

ส่วนที่ 1 ข้อมูลส่วนบุคคล

คำชี้แจง โปรดเติมข้อความลงในช่องว่างหรือทำเครื่องหมาย ✓ ลงใน ☐ หน้าข้อความที่ตรงกับท่าน

1.1 สถานภาพสมรส

☐ 1. โสด ☐ 2. สมรส ☐ 3. แยกกันอยู่

☐ 4. หย่าร้าง ☐ 5. หม้าย ☐ 6. อื่นๆ)ระบุ(_____

1.2 การศึกษา

☐ 1. ไม่ได้เรียนหนังสือ ☐ 2. ประถมศึกษา ☐ 3. มัธยมศึกษาตอนต้น

☐ 4. มัธยมศึกษาตอนปลาย ☐ 5. อนุปริญญา ☐ 6. ปริญญาตรี

☐ 7. อื่นๆ)ระบุ(_____

1.3 อาชีพ

☐ 1. ไม่ได้ทำงาน /แม่บ้าน ☐ 2. เกษตรกร ☐ 3. แรงงานรับจ้าง

☐ 4. พนักงานจ้าง _____ ☐ 5.ข้าราชการ ☐ 6. ธุรกิจส่วนตัว/ค้าขาย

☐ 7.อื่นๆ)ระบุ (

1.4 สถานภาพในครอบครัว

☐ 1. หัวหน้าครอบครัว ☐ 2.สมาชิกครอบครัว

1.5 สถานภาพทางสังคม

☐ 1.ไม่มี ☐ 2.ผู้นำ/แกนนำชุมชน ☐ 3. อาสาสมัครสาธารณสุขหมู่บ้าน

☐ 4. ผู้บริหารส่วนราชการ ☐ 5. ผู้บริหารองค์กรปกครองท้องถิ่น/เทศบาล

1.6 ศาสนา

☐ 1.พุทธ ☐ 2.คริสต์ ☐ 3.อิสลาม

☐ 4.อื่นๆ)ระบุ(_____

1.7 รายได้ส่วนตัวเฉลี่ยต่อเดือน _____บาท

1.8 รายได้รวมของครอบครัวเฉลี่ยต่อเดือน _____บาท

1.9 สิทธิการประกันสุขภาพ

☐ 1. โครงการประกันสุขภาพถ้วนหน้า)บัตรทองรักษาฟรี(☐ 2.ประกันสังคม

☐ 3. สิทธิข้าราชการเบิกได้ ☐ 4. อื่นๆ)ระบุ (_____

ส่วนที่ 2สถานะสุขภาพ, การรับรู้สภาวะสุขภาพและพฤติกรรมสุขภาพ

สถานะสุขภาพ

2.1 น้ำหนัก _____กิโลกรัม

2.2 ส่วนสูง _____เซนติเมตร (BMI = _____)

การรับรู้สภาวะสุขภาพ

2.3 การตรวจสุขภาพประจำปี ☐ 1.ไม่เคยตรวจ (ข้ามไปข้อ 2.4)

☐ 2. ตรวจ

☐ 2.1 มากกว่า 1 ปี .ศ.ระบุปี พ)_____(

☐ 2.2 ในปี พ2555 .ศ.จำนวนกี่ครั้ง ___(ระบุเดือน)___

☐ 2.3 เดือนที่ผ่านมา (ระบุเดือน) _____

2.4 โรคประจำตัว (จากการวินิจฉัยของแพทย์)

☐ 1. ไม่มี ☐ 2. มี

☐ 2.1 เบาหวานรักษาที่ ☐ โรงพยาบาล ☐ คลินิก ☐ ร้านขายยา

ความถี่ทุกๆ ☐ 1 เดือน ☐ 3 เดือน ☐ 6 เดือน ☐ เมื่อมีอาการ

☐ 2.2 ความดันโลหิตสูง รักษาที่ ☐ โรงพยาบาล ☐ คลินิก ☐ ร้านขายยา

ความถี่ทุกๆ ☐ 1 เดือน ☐ 3 เดือน ☐ 6 เดือน ☐ เมื่อมีอาการ

☐ 2.3 กระเพาะอาหารรักษาที่ ☐ รงพยาบาล ☐ คลินิก ☐ ร้านขายยา

ความถี่ทุกๆ ☐ 1 เดือน ☐ 3 เดือน ☐ 6 เดือน ☐ เมื่อมีอาการ

☐ 2.4 หอบหืด รักษาที่ ☐ โรงพยาบาล ☐ คลินิก ☐ ร้านขายยา

ความถี่ทุกๆ ☐ 1 เดือน ☐ 3 เดือน ☐ 6 เดือน ☐ เมื่อมีอาการ

☐ 2.5 ข้ออักเสบรักษาที่ ☐โรงพยาบาล ☐คลินิก ☐ร้านขายยา

ความถี่ทุกๆ ☐1 เดือน ☐3 เดือน ☐6 เดือน ☐เมื่อมีอาการ

☐ 2.6 เกาท์ รักษาที่ ☐ โรงพยาบาล ☐คลินิก ☐ร้านขายยา

ความถี่ทุกๆ ☐ 1 เดือน ☐3 เดือน ☐6เดือน ☐เมื่อมีอาการ

☐ 2.7ไตวาย รักษาที่ ☐โรงพยาบาล ☐คลินิก ☐านขายยา

ความถี่ทุกๆ ☐1 เดือน ☐3 เดือน ☐6 เดือน ☐ เมื่อมีอาการ

พฤติกรรมสุขภาพ

2.5 ในรอบ 1 เดือนที่ผ่านมา ท่านได้กระทำสิ่งเหล่านี้หรือไม่ อย่างไร

2.5.1ท่านดื่มนมรับประทานปลาเล็กปลาน้อย(อย่างใดอย่างหนึ่งหรือทุกอย่าง) ปลากระป๋องหรือไม่/

☐ 1. ไม่รับประทาน ☐ 2. รับประทานบางวัน ☐ 3. รับประทานทุกวัน

2.5.2ท่านรับประทานผัก และ ผลไม้ หรือไม่

☐ 1. ไม่รับประทาน ☐ 2. รับประทานบางวัน ☐3. รับประทานทุกวัน

.2.5.3ท่านรับประทานอาหารประเภทเนื้อสัตว์ติดมัน, อาหารทอด,แกงกะทิหรือไม่(อย่างใดอย่างหนึ่งหรือทุกอย่าง)

☐ 1. ไม่รับประทาน ☐ 2. รับประทานบางวัน ☐ 3. รับประทานทุกวัน

2.5.4 ท่านรับประทานอาหาร /ขนม / ผลไม้ เครื่องดื่มที่หวานจัดหรือไม่ (อย่างใดอย่างหนึ่งหรือทุกอย่าง)

☐ 1. ไม่รับประทาน ☐ 2. รับประทานบางวัน ☐ 3. รับประทานทุกวัน

2.5.5 ท่านรับประทานอาหารเค็มจัดหรือไม่

☐1. ไม่รับประทาน ☐ 2. รับประทานบางวัน ☐3. รับประทานทุกวัน

2.5.6 ท่านดื่มชาหรือไม่

☐ 1. ไม่ดื่ม ☐ 2. ดื่ม

☐ 2.1 ไม่สม่ำเสมอ

☐ 2.2 ดื่มประจำ ประมาณ_____แก้ววัน/

2.5.7 ท่านดื่มกาแฟหรือไม่

☐ 1. ไม่ดื่ม ☐ 2. ดื่ม

☐ 2.1 ไม่สม่ำเสมอ

☐ 2.2 ดื่มประจำ ประมาณ____แก้ว/วัน

2.5.8 ท่านดื่มเครื่องดื่มชูกำลัง)ยกเว้นเครื่องดื่มเกลือแร่ (หรือไม่

☐ 1. ไม่ดื่ม ☐ 2. ดื่ม

☐ 2.1ไม่สม่ำเสมอ

☐ 2.2 ดื่มประจำ ประมาณ____ขวด/วัน

การเคลื่อนไหวร่างกายและการออกกำลังกาย

2.5.9 ท่านต้องออกแรงในการทำงานประกอบอาชีพมากน้อยเพียงใด

☐ 1. ออกแรงน้อย (นั่งทำงานที่โต๊ะ งานธุรการ)

☐ 2. ออกแรงมาก)เช่น ทำไร่ ทำนา ทำสวน กรรมกรรับจ้างก่อสร้าง/แบกหาม(

2.5.10 ท่านได้เคลื่อนไหว /ออกแรง หรือ ออกกำลังกายจนเหงื่อออกและหัวใจเต้นแรงสัปดาห์ละ 3 วัน ๆ ละอย่างน้อย 30 นาที หรือไม่

☐ 1.ไม่เคย ☐ 2.ไม่สม่ำเสมอ ☐ 3.ออกกำลังกายประจำ ประมาณ____วัน/สัปดาห์

แบบแผนการนอนหลับ

2.5.11 ท่านคิดว่าท่านนอนหลับเพียงพอหรือไม่

☐ 1. เพียงพอ ☐ 2. ไม่เพียงพอ

2.5.12 การนอนหลับของท่านเป็นอย่างไร

☐ 1. หลับสนิท ☐ 2. ไม่ค่อยหลับ ☐ 3. นอนหลับแต่ต้องใช้ยา

☐ 3.1 ทุกครั้ง

☐ 3.2 บางครั้ง

การสูบบุหรี่

2.5.13 ท่านสูบบุหรี่หรือไม่ ☐ 1.ไม่เคย ☐ 2. สูบ

☐ 2.1 ไม่สม่ำเสมอ ประมาณ_____มวนวัน/

☐ 2.2 สูบบุหรี่ประจำทุกวันประมาณ_____มวน/วัน

การดื่มเครื่องดื่มที่มีแอลกอฮอล์

2.5.14 ท่านดื่มเครื่องดื่มที่มีแอลกอฮอล์หรือไม่ ☐ 1.ไม่ดื่ม

☐ 2. ดื่มครั้งแรกเมื่ออายุ _____ปี

ชนิดเครื่องดื่มที่มีแอลกอฮอล์	เคยดื่มหรือไม่		ดื่มปีที่แล้ว		ดื่มเดือนที่แล้ว		ดื่มสัปดาห์ที่แล้ว	
	ไม่เคย	เคย	ไม่ได้ดื่ม	ดื่ม	ไม่ได้ดื่ม	ดื่ม	ไม่ได้ดื่ม	ดื่ม
.1เบียร์								
.2วิสกี้								
.3เหล้าขาว								
.4อื่นๆ)ระบุ(_____								
.5อื่นๆ)ระบุ(_____								

2.4.15 ชนิดเครื่องดื่มที่ดื่มเดือนที่แล้ว.....ปริมาณ.....แก้ว จำนวนครั้งที่ดื่มใน 1 เดือน.....

2.4.16 ชนิดเครื่องดื่มที่ดื่มสัปดาห์ที่แล้ว.....ปริมาณ.....แก้ว จำนวนครั้งที่ดื่มใน 1สัปดาห์.....

ส่วนที่ 3 การใช้ยา

1. ท่านซื้อหรือรับยาจากแหล่งใดบ่อยที่สุด

☐ 1.ห้างสรรพสินค้า/ซุปเปอร์มาเก็ต ☐ 2.ร้านขายยา ☐ 3.ผู้ขายตรง

☐ 4.คลินิก ☐ 5.โรงพยาบาล ☐ 6.รถเร่ ☐ 7.อื่นๆ

2. ท่านเคยได้รับข้อมูลข่าวสารเรื่องการใช้ยาหรือไม่?

☐ 1. ไม่เคย (ข้ามไปข้อ 3.1)

☐ 2. เคย ,ท่านได้ข้อมูลจากแหล่งใด (เลือกตอบได้มากกว่า 1 ข้อ)

☐ 1. บุคคลในครอบครัว ☐ 2. วิทยุ ☐ 3. เพื่อน

☐ 4. โทรทัศน์ ☐ 5. เจ้าหน้าที่สาธารณสุข ☐ 6. โปสเตอร์แผ่นพับ/

☐ 7. หนังสือพิมพ์นิตยสาร/ ☐ 8. อินเตอร์เนต ☐ 9. สายด่วน 1556

☐ 10. อื่นๆ)ระบุ(_____

3.1 ชนิดของยาที่ใช้เนื่องจากโรคประจำตัวหรือบรรเทาอาการภาวะขาดฮอร์โมนเพศหญิง กรุณาเติมเครื่องหมาย✓ลงในช่องว่างที่ตรงตามความเห็นของผู้ให้สัมภาษณ์, หากไม่มีกรุณาข้ามไปข้อคำถามที่ 3.3

ชนิดของยา	เคยใช้หรือไม่		ใช้ปีที่แล้ว		ใช้เดือนที่แล้ว		20วันที่ผ่านมา		7วันที่ผ่านมา	
	ไม่เคย	เคย	ไม่เคย	เคย	ไม่เคย	เคย	ไม่เคย	เคย	ไม่เคย	เคย
1. ฮอร์โมนทดแทน										
2. ยานอนหลับ										
3. ยารักษาโรคความดันโลหิตสูง										
4. ยารักษาโรคเบาหวาน										
5. ยาคลายกล้ามเนื้อ										
6. ยารักษาโรคเกาต์										
7. ยาแก้แพ้										
8. ยาสมุนไพร/ยาต้ม/ยาสตรี										
9. วิตามิน/อาหารเสริม)ระบุ(__ _____										
10. อื่นๆ)ระบุ(_____										
11. อื่นๆ)ระบุ(_____ ___										
12. อื่นๆ)ระบุ(_____ ___										

3.2 จากข้อมูลชนิดของยาในข้อ 3.1 กรุณาเติมเครื่องหมาย ✓ หรือข้อความในช่องว่างที่ตรงตามความเห็นของผู้ให้สัมภาษณ์

ชนิดของยา	การสั่งยาโดยแพทย์					การใช้ยาที่ไม่มีใบสั่งยาโดยแพทย์				
	สถานที่ที่รับยา			จำนวนเม็ดต่อการกิน/ครั้ง	จำนวนครั้งในการกินต่อวัน	สถานที่ที่ซื้อยา		จำนวนเม็ดต่อการกิน/ครั้ง	จำนวนครั้งในการกินต่อวัน	เหตุผลในการซื้อยากินเอง
	โรงพยาบาล	ร้านขายยา	อื่นๆ)ระบุ(			ร้านขายยา	อื่นๆ)ระบุ(			
1. ฮอร์โมนทดแทน										
1.1 Angeliq										
1.2 Other										
2. ยานอนหลับ										
2.1 Diazepam 2 mg.										
2.2 Diazepam 5 mg.										
2.3 Other										
3. ยารักษาโรคความดันโลหิตสูง										
3.1										
3.2										

ชนิดของยา	การสั่งยาโดยแพทย์					การใช้ยาที่ไม่มีใบสั่งยาโดยแพทย์				
	สถานที่ที่รับยา			จำนวนเม็ดต่อการกิน/ครั้ง	จำนวนครั้งในการกินต่อวัน	สถานที่ที่ซื้อยา		จำนวนเม็ดต่อการกิน/ครั้ง	จำนวนครั้งในการกินต่อวัน	เหตุผลในการซื้อยากินเอง
	โรงพยาบาล	ร้านขายยา	อื่นๆ)ระบุ(			ร้านขายยา	อื่นๆ)ระบุ(			
4. ยารักษาโรคเบาหวาน										
4.1 Metformin										
4.2 Glibenclamide										
4.3 Other										
5. ยาคลายกล้ามเนื้อ										
5.1 Diclofenac										
5.2 Norgesic										
5.3 Other										
6. ยารักษาโรคเก้าท์										
6.1										
6.2										

ชนิดของยา	การสั่งยาโดยแพทย์					การใช้ยาที่ไม่มีใบสั่งยาโดยแพทย์				
	สถานที่ที่รับยา			จำนวนเม็ดต่อการกิน/ครั้ง	จำนวนครั้งในการกินต่อวัน	สถานที่ที่ซื้อยา		จำนวนเม็ดต่อการกิน/ครั้ง	จำนวนครั้งในการกินต่อวัน	เหตุผลในการซื้อยากินเอง
	โรงพยาบาล	ร้านขายยา	อื่นๆ)ระบุ(			ร้านขายยา	อื่นๆ)ระบุ(			
7. ยาแก้แพ้										
7.1										
7.2										
8. ยาสมุนไพร/ยาต้ม/ยาสตรี										
8.1										
8.2										
9. วิตามิน/อาหารเสริม)ระบุ(_____										
10.อื่นๆ)ระบุ(_____										

3.3 รูปแบบและพฤติกรรมการใช้ยา

คำชี้แจงโปรดเติมเครื่องหมาย

✓ลงในช่องว่างที่ตรงตามความเป็นจริงของท่านในรูปแบบและพฤติกรรมการใช้ยาในช่วง 12 เดือนที่ผ่านมา

รูปแบบและพฤติกรรมการใช้ยา	พฤติกรรม		
	สม่ำเสมอ	บางครั้ง	ไม่เคยเลย
1. ท่านอ่านฉลากยาทุกครั้งก่อนการใช้ยา			
2. ท่านปฏิบัติตามคำแนะนำการใช้ยาที่ระบุบนฉลากยาทุกครั้งก่อนใช้ยา			
3. ท่านเลือกซื้อยาจากร้านขายยาที่มีป้ายแสดง “ร้านยาคุณภาพ ” ที่มีเภสัชกรอยู่ประจำร้าน			
4. ท่านหลีกเลี่ยงการใช้ยาที่อาจไม่ปลอดภัย เช่น ยาสมุนไพรแผนโบราณที่มีส่วนผสมของสเตียรอยด์ ,ยาชูกำลัง อาหารเสริม เพื่อการรักษาหรือป้องกันโรค			
5. ท่านรับประทานยาปฏิชีวนะได้อย่างถูกต้อง ครบถ้วน ตามปริมาณที่แพทย์สั่ง			
6. ท่านซื้อยาตามร้านขายยาทั่วไปโดยไม่มีการสังเกตป้ายใดๆ			
7. ท่านไปซื้อยาเมื่อเจ็บป่วยโดยแจ้งชื่อยาที่จำได้ โดยไม่บอกอาการเจ็บป่วย			
8. ท่านรับประทานยาในปริมาณน้อยและระยะเวลาสั้นเพียงให้หายจากอาการเท่านั้นเสมอ			
9. ท่านแจ้งบุคลากรทางการแพทย์ หรือผู้เกี่ยวข้องกับการจ่ายยาได้ทราบว่าเคยมีประวัติแพ้ยา			
10. ท่านจะแนะนำเพื่อนหรือญาติที่เจ็บป่วยให้ซื้อยามารับประทานก่อนไปพบแพทย์			

รูปแบบและพฤติกรรมการใช้ยา	พฤติกรรม		
	สม่ำเสมอ	บางครั้ง	ไม่เคยเลย
11. ท่านจะไปพบแพทย์ทุกครั้งและไม่ซื้อยามารับประทานเองเมื่อเจ็บป่วย			
12. ท่านซื้อยา ที่บรรจุในซองที่มีฉลากครบถ้วน			
13. ท่านเก็บยาให้พ้นแสง หลีกเลี่ยงความร้อน			
14. ท่านนำยาที่เหลือจากคนอื่นที่มีอาการเช่นเดียวกันมารับประทานเมื่อเจ็บป่วย			
15. ท่านหยุดใช้ยาทันที เมื่อมีอาการผื่นคัน บวม แดง หรือผิดปกติอื่นๆ			
16. ท่านเคยซื้อหรือซื้อยา และอาหารเสริมมาใช้เป็นประจำแม้มีโรคประจำตัว เช่น เบาหวาน ความดันโลหิตสูง			
17. ท่านเก็บยาหยอดตาที่เปิดใช้แล้วไว้ในตู้เย็นเสมอเพื่อใช้ต่ออีกไม่เกิน 1 เดือน			
18. ท่านใช้ยาหยอดตา ยาหยอดหูร่วมกับคนอื่นๆได้เป็นประจำ			
19. ท่านนำยาเม็ดทำเป็นผงละเอียดหรือผงยาแคปซูลฆ่าเชื้อมาโรยแผลแก้อักเสบโดยตรง			
20. ท่านยังใช้ยาอยู่ต่อไป เมื่อพบว่ายาน้ำมีการเปลี่ยนสีหรือตกตะกอน			

3.4 ความรู้ในการใช้ยาตามใบสั่งแพทย์

คำชี้แจง คำถามต่อไปนี้เป็นข้อคำถามเพื่อประเมินความรู้ในการใช้ยาตามใบสั่งแพทย์ที่เคยหรือกำลังได้รับ หากมีมากกว่า 1 ชนิด ขอให้ท่านใช้ข้อมูลจากยาที่ได้รับบ่อยที่สุดในการตอบตามข้อคำถาม

ข้อคำถาม	คำตอบ
1. ท่านทราบชื่อของยาที่ได้รับจากใบสั่งยาของแพทย์หรือไม่	1 –ไม่ทราบ 2 - _____ (ระบุชื่อยา)
2. ท่านทราบหรือไม่ว่าแพทย์สั่งยาชนิดนี้ให้ท่านเพื่ออะไร	1 –ไม่ทราบ 2 - _____ (ระบุอาการ)
3. ท่านทราบขนาด หรือปริมาณ ที่ควรใช้ของยานี้หรือไม่	1 –ไม่ทราบ 2 - _____(ระบุขนาด)
4. เวลาใดบ้างที่ท่านต้องรับประทานยาชนิดนี้	1 –ไม่ทราบ 2 - _____(ระบุเวลา)
5. ท่านต้องใช้ยาชนิดนี้ตามใบสั่งแพทย์นานเท่าใด	1 –ไม่ทราบ 2 - _____(ระบุเวลา) 3 –ไม่ตอบ
6. ท่านทราบว่าควรใช้ยาอย่างไรตามตามใบสั่งแพทย์	1 –ไม่ทราบ 2 - _____(ระบุวิธีการใช้)
7. ท่านทำอย่างไรหากท่านลืมกินยาหนึ่งครั้งหรือมากกว่า	1 –ไม่ทราบ 2 - _____(ระบุ)
8. ยาชนิดนี้มีข้อควรหลีกเลี่ยงในระหว่างการใช้ยาร่วมกับยาชนิดอื่นๆ อาหาร หรือเครื่องดื่ม หรือไม่	1 –ถ้ามีโปรดระบุ _____ 2 – ไม่มี 3 –ไม่ทราบ
9. ท่านทราบว่ายาชนิดนี้มีอาการข้างเคียงหรือไม่	1 – ถ้ามี)ระบุอาการ(_____ , ไปที่คำถามข้อ 10 2 –ไม่มี, ข้ามไปข้อ 11 3 –ไม่ทราบ, ข้ามไปข้อ 11

ข้อคำถาม	คำตอบ
10. ท่านเคยมีอาการข้างเคียงจากการใช้ยานี้หรือไม่	1 –มี ระบุ _____ 2 – ไม่มี
11. ท่านต้องการข้อมูลเพิ่มเติมเกี่ยวกับการใช้ยานี้หรือไม่	1 –ต้องการ, ไปที่ข้อ 12 2 – ไม่ต้องการ ข้ามไปส่วนที่ 4
12. ข้อมูลอะไรบ้างที่ท่านต้องการ 12.1 วิธีการใช้ยาชนิดนี้ 12.2 ระยะเวลาที่จำเป็นต้องใช้ยาชนิดนี้ 12.3 อาการข้างเคียงที่อาจเกิดขึ้นได้เมื่อใช้ยาชนิดนี้	 1 –ต้องการ 2 –ไม่ต้องการ 1 –ต้องการ 2 –ไม่ต้องการ 1 –ต้องการ 2 –ไม่ต้องการ

ส่วนที่ 4 ข้อเสนอแนะอื่นๆ

_____

_____

_____

_____

_____

ขอขอบคุณที่ให้ความร่วมมือในการตอบแบบสอบถาม

VITA

Full name:	Ratchadaporn Chanthabutr
Nationality:	Thai
Gender:	Female
Date of Birth:	May 20, 1980

Education:

February 2002	Diploma of Nursing Science, Nakhon Panom Nursing College
February 2006	Bachelor of Sciences (Nursing Sciences), Nakhon Panom Nursing College

Employment history

April 2001	Technical Nurse, Practitioner Level,
December 2006	Registered Nurse, Practitioner Level,
July 2012 - Present	Registered Nurse, Professional Level, The 7th Regional Health Promoting Center UbonRatchathani, Department of Health, Ministry of Public Health, Thailand