

KNOWLEDGE ABOUT DRUG PRESCRIPTION AMONG URBAN MENOPAUSAL WOMEN IN MUANG DISTRICT, UBON RATCHATHANI, THAILAND

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Abstract:

In 1990, there were 467 million menopausal women in the world. Each year 25 million of them would enter menopause. By the year 2030 the amount would increase to 1.2 billion, with 47 million new entrants each year. In Thailand, the number of menopausal women had increased to the equivalent of 26 percent of whole country population in 2009. These would appear to have the following symptoms, whole body deterioration and sexual fluctuation occurrence. As the result of hormone imbalance, these women may have risks from potentially making purchases on unnecessary medications without seeing physician. The objective of this study was to evaluate the knowledge of menopausal population about drug prescription use. A cross-sectional survey was conducted on drug misuse among menopausal population in Muang district, UbonRatchathani, Thailand. Data were collected by questionnaires interview in various areas by using simple random sampling. By using the inclusion criteria and the menopausal screening form, 411 suitable women as the remaining subjects. We have evaluated their level of knowledge on how well they understand about medication use both medications that was already taken and would be taken in the future. The number of women who answered that they have both taken some medications and were likely to take other type in the future was 292. The result showed that 50% of them had a lack of knowledge and poor understanding on how to take medication correctly and cautiously. They were not aware that some specific medications should not be taken at the same time, or when to avoid food and beverage while taking certain type of medication. The study also indicated that 21% of them had misused medication of at least 1 type. Knowledge about drug prescription was significantly associated with drug misuse ($p < 0.05$). Socio-demographics, health status (BMI), health seeking (personal disease), were significantly associated with the level of knowledge about drug prescription use ($p < 0.05$). Results suggested that health behaviors and health seeking should be studied further, in hopes of helping menopausal women better understand the risks of medication abuse.

Keywords: Menopause, Drug prescription, Thailand

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INTRODUCTION

In 1990, there were 467 million menopausal 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. 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 the increasing susceptibility from diseases or illnesses such as obesity, diabetes, hormone deficiency, decrease in bone mass density, hypertension, heart disease, cancer, stress, insomnia, sexuality, occupational and genetic

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health behaviors problem [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. Most common symptom and problem were hot flashes, insomnia 51.4 and 45.7 percent, respectively and 42.2 percent for irritability [2]. The study of menopause and andropause's health behaviors of populations from seven provinces in north-eastern, Thailand had found that the most symptom occur in hormone levels changes period were muscle-joint pain (25.7 percent), hot flash (16.5 percent) and insomnia (15.1 percent) and 63.6 percent of people who suffer insomnia were using sleeping pills [3]. In addition, it had been found that the population aged between 15-60 years took medication without prescription to relieve symptoms for various illnesses, by purchasing from pharmacies or drug stores. There are numbers of medication users who were not aware of the restrictions and risk of medication abuse [4]. According to the study on prescribed medication use behaviors and the services of pharmacy in Thailand, it had been found that people would rather go to the local pharmacy for minor illness than having to visit the local physician, especially in rural areas when there is no restriction [5]. In 2006 the Ministry of Public Health had received reports the number of people who got sick by consuming medication from illegitimate pharmacies. The Ministry of Public Health have been monitoring the effects of medications reported from 1,760 people who has drug intolerance, overdose on sleeping pills, antibiotics, narcotics, analgesic drugs and anti-allergy medicines that was typically found in the patients [6]. The researchers are interested in studying on knowledge about drug prescription use in menopause population. Most of the studies solely focused on the disease and only few studies regarding to knowledge about drug prescription use, which has not been found reported in this group before.

MATERIALS AND METHODS

Subjects and procedure

A cross-sectional survey method was used for this study. The data was collected by administered questionnaires interview face to face in multiple communities by proportion and simple random sampling which is the list of the name of the studied group were from health care center. Their data was gathered by using inclusion criteria before sampling through 411 samples. Inclusion criteria were the women are 45-59 years old who were

living in areas at least 6 months, had natural amenorrhea more than 12 months and had at least 1 score assessment by menopause screening form. The exclusion criteria were the sample that no symptom by menopause screening form had a problem of physical disables and psychotic disorder. After the studied group had got menopause screening assessment, the total remainders were 411 women. We have evaluated the level of knowledge about drug prescription, refer to medication that was already taken and would be taken in the future, using cut-off points were classified. There were 292 women voluntarily admitted they have both already taken some medications and would be taking other type of medications. The drug misuse in the study was assessed by the standard of medication use guideline and a prescription pattern use which was acknowledged in Thailand by Dr. Kampol Sriwatanakul. The study was approved by the Chulalongkorn University Human Ethical Committee (COA No. 062/2013).

Measurement tool

The study was used structure questionnaires for the interview which comprises of questions in relation to dependent variables (The knowledge about drug prescription) and independent variables (socio-demographic, health status (BMI), health behaviors, eating behavior, health seeking). Study instruments assessed demographic characteristics, the health status, health behaviors and health seeking, knowledge about drug prescription and drug misuse.

The content validity of the questionnaires in medication use part has IOC = 0.66, knowledge about prescription use has IOC = 1 and drug/medicine use practices has IOC = 1. We use Cronbach's alpha coefficient formula to find content of reliability. The content reliability of the questionnaire Menopause screening (α) was 0.86. We use the Kuder-Richardson Formula 20 (KR-20) to estimate content reliability of the knowledge about drug prescription the result was 0.83 and lastly 0.85 for medicine use pattern.

Statistics analysis

Chi-Square test was used to analyze outcome in term of knowledge about drug prescription and drug misuse.

RESULTS

Socio-demographic characteristic

The study had shown that among 411 women, more than 50% of them were aged between 55-59 years old, 70% of them were married, 40% of them

Table 1 Socio-demographic characteristics (n=411)

Characteristic	Age group n (%)			n(%) (n=411)
	45-49 (n=58)	50-54 (n=121)	55-59 (n=232)	
Age (years)				
45-49	58(100.0)	0(0.0)	0(0.0)	58(14.1)
50-54	0(0.0)	121(100.0)	0(0.0)	121(29.4)
55-59	0(0.0)	0(0.0)	232(100.0)	232(56.4)
Marital status				
Single	6(10.3)	8(6.6)	6(2.6)	20(4.9)
Married	37(63.8)	78(64.5)	173(74.6)	288(70.1)
Separated	4(6.9)	7(5.8)	6(2.6)	17(4.1)
Divorced	7(12.1)	8(6.6)	4(1.7)	19(4.6)
Widowed	4(6.9)	20(16.5)	43(18.5)	67(16.3)
Education				
Never goes to school	3(5.2)	2(1.7)	4(1.7)	9(2.2)
Primary school	15(25.9)	44(36.4)	117(50.4)	176(42.8)
Secondary school	13(22.4)	8(6.6)	20(8.6)	41(10.0)
High school level	11(19.0)	25(20.7)	30(12.9)	66(16.1)
Associated degree	11(19.0)	11(9.1)	25(10.8)	47(11.4)
Bachelor degree	2(3.4)	29(24.0)	29(12.5)	60(14.6)
Others (Grad 4, Master degree)	3(5.2)	2(1.7)	7(3.0)	12(2.9)
Occupational				
Unemployed	12(20.7)	40(33.1)	103(44.4)	160(38.9)
Farmer/agriculture	1(1.7)	10(8.3)	11(4.7)	22(5.4)
Labor	13(22.4)	7(5.8)	11(4.7)	31(7.5)
Employer	4(6.9)	5(4.1)	12(5.2)	21(5.1)
Government officer	12(20.7)	33(27.3)	40(17.2)	85(20.7)
Business	16(27.6)	25(20.7)	51(22.0)	92(22.4)
Family status				
Leader	12(20.7)	38(31.4)	78(33.6)	128(31.1)
Member	46(79.3)	83(68.6)	154(66.4)	283(68.9)
Social status				
No social status	49(84.5)	85(70.2)	177(76.3)	311(75.7)
Leader of village	0(0.0)	4(3.3)	12(5.2)	16(3.9)
Health volunteer	5(8.6)	25(20.7)	33(14.2)	63(15.3)
Government administrator	4(6.9)	7(5.8)	10(4.3)	21(5.1)
Religion				
Buddhist	56(96.6)	116(95.9)	223(96.1)	395(96.1)
Christian	2(3.4)	4(3.3)	9(3.9)	15(3.6)
Muslim	0(0.0)	1(0.8)	0(0.0)	1(0.2)
Monthly income				
Less than 5,000	22(37.9)	47(38.8)	107(46.1)	176(42.8)
5,001 – 10,000	14(24.1)	36(29.8)	47(20.3)	97(23.6)
10,001 – 20,000	10(17.2)	9(7.4)	30(12.9)	49(11.9)
20,001 – 30,000	7(12.1)	9(7.4)	24(10.3)	40(9.7)
More than 30,000	5(8.6)	20(16.5)	24(10.3)	49(11.9)
Family income per month				
Less than 5,000	10(17.2)	14(11.6)	34(14.7)	58(14.1)
5,001 – 10,000	9(15.5)	32(26.4)	35(15.1)	76(18.5)
10,001 – 20,000	13(22.4)	29(24.0)	61(26.3)	103(25.1)
20,001 – 30,000	10(17.2)	12(9.9)	30(12.9)	52(12.7)
More than 30,000	16(27.6)	34(28.1)	72(31.0)	122(29.7)
Health security insurance scheme				
Universal coverage scheme	30(51.7)	63(52.1)	119(51.3)	212(51.6)
Social security scheme	4(6.9)	9(7.4)	16(6.9)	29(7.1)
Civil service welfare system	23(39.7)	49(40.5)	92(39.7)	164(39.9)
Other (Payment)	1(1.7)	0(0.0)	5(2.2)	6(1.5)

Table 2 The level of knowledge about drug prescription (n=292)

Level of knowledge about drug prescription	Age group (%)			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)

Table 3 Overview of 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)

were at primary school level, 16% of them were at high school level, more than 30% were unemployed, 20% of them owned business and 20% of them were government official. The aspect of their family status which almost 70% of them were family member, 75% have no social status and 15% of them were health volunteer. Religion wise 90% of them were Buddhist. Financial status 40% of them had monthly income less than 5,000 baht, almost 30% of them had family monthly income more than 30,000 baht. Their 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 1).

Level of knowledge of drug prescription

We have evaluated their level of knowledge on how well they understand about medication use both medications that was already taken and would be taken in the future which was cut-off points were classified. The number of women who voluntarily answered that they have both taken some medications and were likely to take other type in the future was 292 women. The result has shown that 50% of them had a lack of knowledge and poor understanding on how to take medication correctly and cautiously. And they were not aware that same specific medications were unable to be taken at the same time or when to avoid food and beverage while taking certain type of medication. According to the result, it is worth to be put in health educational plan to improve the medication use advice concerning the health personnel in the future (Table 2).

Drug misuse and prescription use

The result also revealed that 234 women among those 411 have regularly been taking at

least 1 type of medication, among this group also was found that 1.4% or 6 women were drug misuse only, 3.6% or 15 women also admitted they had both misused and prescription use and 213 women or 51.8% they would take prescription use only (Table 3).

Factors association of knowledge about drug prescription

These following factors (the socio-demographic were education, occupational, monthly income, family income, social status, health security scheme, health status was body mass index (BMI) and health seeking) were personal disease and drug misuse had significant association with the knowledge about drug prescription ($p < 0.05$) (Table 4).

DISCUSSION

The result has pointed out that almost 60% of participants had notified us that there was a list of medications they have been taking in lifetime which were the following anti-histamine, antihypertensive drug and muscle relaxant drug respectively. Type of medication that was used in their last 7 days were antihypertensive drug and hypoglycemic agent drug respectively. The number of medication use per person, the result was 37% of participants used only 1 type of medicine, 14% of them used 2 types, 5% used 3 types and 1% used 4 types and most of them were aged between 55-59 years old. Which these percentage result were identical to Linjakumpu et al. [7] study on the use of medications and polypharmacy are increasing among the elderly. The increasing number of drugs and polypharmacy (use concomitant than five doses) increased as well. These changes are most prominent among those aged 85 years or over, particularly among women polypharmacy is a

Table 4 Association of knowledge about drug prescription with socio-demographic characteristics, health status, health seeking (n=234)

Characteristic	χ^2 (df)	p-value
Socio-demographic		
Education	62.915(12)	0.000*
Occupational	26.769(12)	0.008*
Social status	16.228(6)	0.013*
Monthly income	36.978(8)	0.000*
Family income/month	50.670(8)	0.000*
Health security insurance scheme	32.802(8)	0.000*
Health status		
Body Mass Index (BMI)	21.394(8)	0.006*
Health seeking		
Diseases	41.724(2)	0.000*
Drug misuse		
	20.992(4)	0.000*

*p-value < 0.05 indicate significance

complex phenomenon and concerns that merit more research.

We have evaluated their level of knowledge on how well they understand about medication use both medications that was already taken and would be taken in the future which was cut-off points were classified. The number of women who voluntarily answered that they have both taken some medications and were likely to take other type in the future was 292 women. The result has shown that 50% of them had a lack of knowledge and poor understanding on how to take medication correctly and cautiously. And they were not aware that same specific medications were unable to be taken at the same time or when to avoid food and beverage while taking certain type of medication. These result conformed to the study of Panyawuttikrai [5] had studied on prescribed medication use behaviors and the services of pharmacies in Thailand revealed that people would rather visit local pharmacies for minor illness than having to get their medications prescribed from local physician especially in rural area where they was no any restrictions. And the study result also conformed to Hsiu-Yun Lai et al. [8] had done a research in 2009 on the prevalence of the prescribing of potentially inappropriate medications at ambulatory care visits by elderly patients covered by the Taiwanese National Health Insurance program. Their result was found that the frequency of potentially inappropriate medication prescribing had declined over the study period. In 2004, 62.5% of elderly patients were exposed to such medications. The result of this part can be the topic on health educational plan to improve the medication use advice concern for the health personnel in the future.

This study had also revealed the association

between the level knowledge about drug prescription with independent variables which was conducted by Chi-square test with the socio-demographic, health status, health behavior, health seeking, drug use practices and drug misuse. The result was found that education, occupational, monthly income, family income, health security scheme had significant association with the level knowledge about drug prescription ($p < 0.05$). The association between the level of knowledge about drug prescription with health status was found that health status was BMI (Body mass index) had significant association with the level knowledge about drug prescription ($p < 0.05$). The health seeking were personal disease had significant association with the level knowledge about drug prescription ($p < 0.05$) and drug misuse also had significant association with the knowledge about drug prescription ($p < 0.05$). In 2011 the Department of health of Thailand also had study report of the relationship between the factors that influence health behaviors of menopause and andropause people in Thailand. The report indicated that congenital disease, necessary drug use, current illness, testosterone hormone deficiency and stress were associated with menopause and andropause health behavior [1]. Which was identical to the study of Leonard J. Paulozzi in 2012 [9] reported the results of the epidemics of prescription drug overdoses are a host of fact ors, including low-income, middle-aged males and mental health issues.

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