



Original Articles/นิพนธ์ต้นฉบับ

Factors Associated with Contraceptive Practice among Hmong Hill Tribe Women in Nan Province

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Abstract

Background: Hill tribe women in Thailand still have high crude birth rate with low rate of contraceptive use. This leads to poor quality of life and poor societal development.

Objective: To study the rate and factors associated with contraceptive practice among Hmong hill tribe women in Nan Province, Thailand.

Methods: This research is a cross sectional survey study. Data was collected by self-administered questionnaire from 284 married Hmong hill tribe women aged 15-44 years old.

Results: We noted 56% of the Hmong hill tribe women of reproductive age used contraceptives; 41.6% used modern methods, while 14.4% used traditional methods. By univariate analysis, the factors significantly associated with contraceptive practice included age, income, easy accessibility to the contraceptive services, cheap contraceptive service, receiving advice from health personnel, satisfaction of contraceptive services, ever attended education class of contraception and ability to advice other people about contraception. When multiple logistic regression analysis was applied, age, easy accessibility to the contraceptive services and satisfaction with contraceptive services were independently associated with contraceptive use.

Conclusions: Rate of contraceptive practice among Hmong hill tribe women of reproductive age in Nan Province was still low and significantly associated with accessibility, understanding and attitude toward contraception and satisfaction with service which enable them to advise others people about contraception. Thus, contraceptive service should be actively improved and developed which included education and promotion of knowledge of contraception to the Hmong Hill tribe women.

Keywords: Contraceptive practice, contraception, modern method, traditional method

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Background

Recent demographic studies in Thailand have revealed the growing success of the national family planning program and subsequent fertility that declines over the past decade. However, such high rate of contraceptive use and a decline in fertility have not reached all segments of the population^(1,2). People of some peripheral area and minorities have not yet experienced a significant change in their reproductive behavior. These groups include Thai Muslim population in the four southern-most provinces and several ethnic minorities scattering in the hill area of the North⁽³⁾.

Recent studies show that the Hmongs in Northern Thailand have very high fertility. When Hmong women reach the end of reproductive age, they usually have about 7 live births, out of whom about 6 children survived. With a total marital fertility rate (TMFR) of 6.6, Hmong fertility rate is close to natural fertility rate⁽⁴⁾.

This research was a survey on the Hmong hill tribe in Nan Province who is an unique ethnic and cultural group that accounts for 5.3% of total population in Nan Province⁽⁵⁾. The Hmong have high fertility and low contraceptive rate. The low contraceptive rate of Hmong hill tribe is best understood within the context of the socioeconomic condition. They also have desired for big families and expected of many children because, in the future, family members are the main persons to get household income. The impact of high fertility and low contraceptive rate on socioeconomic development is very important of the society and community⁽³⁾.

Research on fertility and contraception among Hmong hill tribe population has been done and published about 15 years ago. The previous survey was done on Hmong hill tribe population in Chiang Mai and revealed high fertility rate (TMFR = 6.6%) and

low contraceptive rate (29.8%)⁽³⁾. The purpose of this research was to evaluate the recent rate of contraceptive practice and associated factors of its use among Hmong hill tribe women in Nan Province, Thailand.

Material and Methods

This research was a cross sectional survey research. That was approved for ethical clearance by Ramathibodi Committee on Human Right Related to Research Involving Human Subject. Data was collected by self administered questionnaire. Among Hmong hill tribe women who lived in the area of Paklang subdistrict, Pua district, Nan Province during 16th December 2014 to 31st January 2015. In case of Hmong women who were unable to read Thai, translators were recruited to communicate with the women. Population were Hmong hill tribe women, aged 15-44 years old, who lived in Paklang Subdistrict, Pua District, Nan Province and agreed to participate in this study. The required sample size was calculated by using Daniel's formula⁽⁷⁾. Systematic random sampling method⁽⁸⁾ was applied into three villages of Nampern, Kanghor and Sansai as shown in Table 1. In randomization, the identification number of Hmong hill tribe women of reproductive age (15-44 years old) was collected from Paklang primary health care unit and arranged from minimum to maximum. The interval of rank of random sampling (I) was calculated. The first sample was randomly selected at the first interval as R_1 , then next cases were R_1+I , R_1+2I , R_1+3I and so on until the required sample size was obtained. Data analysis included descriptive statistics, Chi-square test, and logistic regression analysis with statistical significant level at $P < 0.05$.

Results

Only 56% of Hmong hill tribe women used con-

**Table 1** Systematic random sampling of cases in 3 villages

Village	No.	
	Women of reproduction age*	Cases recruited
Nampern	226	74
Kanghor	306	99
Sansai	352	113
Total	884	286

* Age 15-44 years old

Table 2 Contraceptive practice among Hmong hill tribe women

Contraceptive practice	No. (%)
Modern methods	118 (41.6)
Oral contraceptive pills	57 (20.1)
Injectables	37 (13.0)
Implants	4 (1.4)
Intrauterine contraceptive device	3 (1.1)
Male condoms	9 (3.1)
Male sterilization	3 (1.1)
Female sterilization	5 (1.8)
Traditional methods	41 (14.4)
Coitus interruptus	16 (5.6)
Fertility awareness method	25 (8.8)

traception and only 41.6% used modern methods which included oral contraceptive pills (OCPs), injectables, intrauterine device (IUD), implants, male condoms and sterilization of both males or females. About 14.4% of women used traditional methods including coitus interruptus and fertility awareness. OCPs was the most common contraception use (20.1%), followed by injectable (13.0%) (Table 2).

Table 3 shows factors associated with contraceptive practice. By univariate analysis, age, income, accessibility to the services, cost of contraception, receiving advice from health personnel, satisfaction with contraceptive services and ever attending edu-

cation class of contraception were associated with contraceptive use.

When multiple logistic regression analysis was applied, there were 3 factors significantly associated with contraceptive practice. They were satisfaction with the services (OR=2.42, 95%CI=1.28, 4.59), easy accessibility to the service (OR=1.97, 95% CI=1.12, 3.46) and age 35 years or more (OR=0.54, 95% CI=0.31, 0.925) (Table 4).

Discussion

The Hmongs in Thailand form only a fraction of the large Hmong population in southern China and northern Vietnam. Their presence in northern Thailand was first noted about 100 years ago⁽⁴⁾. Rapid natural increase coupled with continued immigration have made the number of Hmongs in Thailand rise constantly. Currently, the Hmong population in Thailand is the second largest hill tribe group following the Karen, accounting for 19 percent of the total hill tribe population. In Hmong society, although children of both sexes contribute to household economy at an early age, sons are strongly preferred because of their role in future economic support, and for continuation of the family line and their associated ancestral rituals⁽³⁾.

In 1990, the study of Podhista et al, found that the rate of contraceptive practice of Hmong hill tribe population in Chiang Mai was only 29.8% and the most common method used was female sterilization (25.0%)⁽³⁾.

In 2004, Suwanganit et al, who tried to develop a practice guideline of birth control services for Hmong hill tribe women in Samoeng District, Chiang Mai Province and found that rate of contraception among adult women was 53.5% and hormonal contraceptive injectables was most commonly used (13.0%)⁽⁶⁾.

Table 3 Personal characteristics of Hmong Hill Tribe Women

Characteristics	No. (%)		Total (n = 284)	P
	Contraceptive use (n = 159)	No contraceptive use (n = 125)		
Age (years)				
15-19	30 (18.9)	15 (12.0)	45 (15.8)	0.005*
20-24	28 (17.6)	24 (19.2)	52 (18.3)	
25-29	36 (22.6)	18 (14.4)	54 (19.0)	
30-34	24 (15.1)	15 (12.0)	39 (13.7)	
35-39	24 (15.1)	18 (14.4)	42 (14.8)	
40-44	17 (10.7)	35 (28.0)	52 (18.3)	
Education				
Illiterate	31 (19.5)	22 (17.6)	53 (18.7)	0.975
Primary school	54 (34.0)	44 (35.2)	98 (34.5)	
Secondary & high school	63 (39.6)	51 (40.8)	114 (40.1)	
≥ Bachelor Degree	11 (6.9)	8 (6.4)	19 (6.7)	
Occupation				
Housewife	11 (6.9)	11 (8.8)	22 (7.7)	0.128
Farmer	62 (39.0)	58 (46.4)	120 (42.3)	
Laborer	50 (31.4)	41 (32.8)	91 (32.0)	
Government officer	36 (22.6)	15 (12.0)	51 (18.0)	
Religion				
Buddhism	125 (78.6)	89 (71.2)	214 (75.4)	0.15
Other	34 (21.4)	36 (28.8)	70 (24.6)	
Income (bahts per year)				
< 70,000	137 (86.2)	96 (76.8)	233 (82.0)	0.041*
70,001 - 150,000	13 (8.2)	24 (19.2)	37 (13.0)	
> 150,000	9 (5.7)	5 (4.0)	14 (4.9)	
Spouse's age (year)				
< 20	18 (11.3)	13 (10.4)	31 (10.9)	0.074
21-30	55 (34.6)	31 (24.8)	86 (30.3)	
31-40	42 (26.4)	27 (21.6)	69 (24.3)	
41-50	31 (19.5)	42 (33.6)	73 (25.7)	
> 50	13 (8.2)	12 (9.6)	25 (8.8)	
Marital status				
Married	151 (95.0)	112 (42.6)	263 (92.6)	0.086
Separated/ divorced/ widow	8 (5.0)	13 (10.4)	21 (7.4)	
Number of marriage				
1	146 (91.8)	108 (89.6)	254 (89.4)	0.140
≥ 2	13 (8.2)	17 (10.4)	30 (10.6)	
Age at first marriage				
< 15	30 (18.9)	24 (19.2)	54 (19.0)	0.944
≥ 15	129 (81.1)	101 (80.8)	230 (81.0)	
Score of sexual knowledge				
Poor (0- 7)	38 (23.9)	17 (13.6)	55 (19.4)	0.08
Fair (8-11)	109 (68.6)	96 (76.8)	205 (72.2)	
Good (12-15)	12 (7.5)	12 (9.6)	24 (8.5)	
Attitude toward contraceptive practice				
Inappropriate (1.0-3.90)	152 (95.6)	120 (96.0)	170 (95.8)	0.86
Appropriate (4.0-5.0)	7 (4.4)	5 (4.0)	114 (4.2)	

* $P < 0.05$



Table 4. Multiple logistic regression analysis of factors associated with contraceptive practice among Hmong hill tribe women

Factors	β	SE	Wald	P	Exp (β) (95% CI)
Age (≥ 35 years)	-0.550	0.268	4.222	0.04*	0.577 (0.341, 0.975)
Accessibility to the services	0.733	0.283	6.710	0.01*	2.081 (1.862, 5.759)
Satisfaction with contraceptive services	0.886	0.325	7.413	0.006*	2.424 (1.282, 4.586)

* $P < 0.05$

β , beta - coefficient; SE, standard error; Exp, exponential

In this study, although different population of Hmong hill tribe was studied, the rate of contraceptive practice was comparable to the study of Suwanganit et al⁽⁶⁾. In this study, the two most common methods were oral contraceptive pills (20.1%), and injectables (13.0%). Long acting reversible contraception were seldomly used (1.4% of implant and 1.1% of IUD). Three percent of women used male condom method. Only 1.8% had female sterilization. The change in types of contraception used was demonstrated. The changes may be due to social development of decrease family size and pattern of family life. Couples may be more separated due to work in the low land and expansion of knowledge of contraception.

Fourteen percent of Hmong hill tribe women used traditional methods including fertility awareness methods, (8.8%) and coitus interruptus (5.6%). Although these methods were not very effective, they decided to use because it is more convenient and does not need medical supervision.

Age was found to be independently associated with contraceptive practice. The study of Luu⁽⁹⁾ in 1995 which investigated factors affecting family planning behavior among married women of reproductive age in Central Coast of Vietnam. The major findings showed that there was a positive relationship between contraceptive use and age. The study of Podhisita et al⁽³⁾ in 1990 showed that the proportion of

current users increased almost steadily as the age of women increased but dropped only in the oldest age group of 45-49 years. The drop in the older age group was perhaps due to the absence of need for contraception among women who reach menopause. In this study, the drop in contraceptive practice occurred as early as 35 years old. It may be due to the decline in family size and socioeconomic changes of modernization that the couples did not have time to stay together like in the past.

This study showed that an accessibility to the service was a statistically significant factor associated with contraceptive practice. It is accordance with the study of Banouvong⁽¹⁰⁾ in 1999 which studied contraceptive use among rural married women in Xiengngun District, Luangprabang Province, Lao People's Democratic Republic. Their results showed that there was a statistically significant association between contraceptive use and distance and convenience of the services. Similar findings were found by Win⁽¹¹⁾ who studied the effect of sociodemographic factor, knowledge and attitude towards contraceptive use and accessibility to the service by interviewing 146 migrant women in Samut Sakorn Province. In 2007, Sithong et al⁽¹²⁾ studied the use of family planning services among 224 women aged 14-49 years of minorities in Thong Pha Phume minority settlement, Karnchanaburi Province. They found that an influen-

cing factor on the use of family planning services was the perception of the service availability. Availability and convenience of service may be a part of service which was found to be one of the most statistically significant factors in this study.

The findings that the rate of contraceptive practice among Hmong hill tribe women did not increase when compared with the previous studies more than 10 years ago. In addition, the rate of contraceptive practice declined at an earlier age, the pattern of contraceptive use shifted to the shorter acting reversible contraceptions and traditional methods. These may imply a decline in the effectiveness of family planning services. Hmong hill tribe population still has a high birth rate when compared to the other population of the country. Therefore, strengthening family planning promotion program among Hmong hill tribe population is still needed. Improving family planning clinics and services in the neighborhood of Hmong hill tribe population in an active way should

be considered.

Conclusion

Rate of contraceptive practice among Hmong hill tribe women in Nan Province is still low and significantly associated with age, easy accessibility, and satisfaction with the service. When compared with the previous study, the rate of contraceptive practice was stable but the type of contraceptive used changed to shorter reversible contraception as well as traditional methods. Thus, contraceptive service should be improved and developed in an active way including education to provide correct knowledge of contraception and service of more modern methods to meet with the satisfaction of Hmong hill tribe women.

Conflict of interest

The authors declare that there was no conflict of interest in this study.

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ปัจจัยที่มีความสัมพันธ์กับการคุมกำเนิด ของสตรีไทยภูเขาเผ่าม้งในเขตพื้นที่จังหวัดน่าน

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ภาควิชาสูติศาสตร์-นรีเวชวิทยา คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี มหาวิทยาลัยมหิดล

บทคัดย่อ

ความเป็นมา: ชาวไทยภูเขาในประเทศไทยดังเช่นเผ่าม้ง ยังคงมีปัญหาด้านการเกิดสูงและอัตราการคุมกำเนิดต่ำ ส่งผลให้คุณภาพชีวิตประชากรและการพัฒนาสังคมโดยรวมอยู่ในระดับต่ำ

วัตถุประสงค์: เพื่อศึกษาอัตราการคุมกำเนิดและปัจจัยที่มีความสัมพันธ์กับการคุมกำเนิดในสตรีชาวไทยภูเขาเผ่าม้ง ในตำบลปากกลาง อำเภอปัว จังหวัดน่าน

วิธีวิจัย: การศึกษาในครั้งนี้เป็นการวิจัยชนิดภาคตัดขวาง กลุ่มเป้าหมายคือสตรีชาวไทยภูเขาเผ่าม้งที่สมรสแล้วอายุ 15-44 ปี อาศัยในตำบลปากกลาง อำเภอปัว จังหวัดน่าน จำนวน 284 คน เก็บข้อมูลโดยใช้แบบสอบถาม

ผลการศึกษา: สตรีวัยเจริญพันธุ์ชาวไทยภูเขาเผ่าม้งมีอัตราคุมกำเนิดเพียงร้อยละ 56 แบ่งเป็นการคุมกำเนิดด้วยวิธีทันสมัย ร้อยละ 41.6 และคุมกำเนิดด้วยวิธีขานร้อยละ 14.4 เมื่อวิเคราะห์ปัจจัยเดี่ยวพบว่า มีปัจจัยที่สัมพันธ์กับการคุมกำเนิดของสตรีชาวไทยภูเขาเผ่าม้งอย่างมีนัยสำคัญทางสถิติ ได้แก่ อายุ รายได้ ความสะดวกในการเข้าถึงบริการ ค่าใช้จ่ายในการคุมกำเนิด การได้รับคำแนะนำจากเจ้าหน้าที่ ความพึงพอใจและการเข้าร่วมอบรมเรื่องการคุมกำเนิด เมื่อวิเคราะห์โดยใช้สมการถดถอยโลจิสติก พบว่าปัจจัยที่มีความสัมพันธ์กับการคุมกำเนิดอย่างมีนัยสำคัญทางสถิติ ได้แก่ อายุที่เพิ่มมากขึ้น สตรีที่อายุเท่ากับหรือมากกว่า 35 ปี จะคุมกำเนิดน้อยลง ปัจจัยด้านความสะดวกในการเข้าถึงบริการและความพึงพอใจในการรับบริการ

สรุป: อัตราการคุมกำเนิดที่พบในสตรีวัยเจริญพันธุ์ชาวไทยภูเขาเผ่าม้งในจังหวัดน่านยังคงต่ำอยู่และพบว่ามีปัจจัยอย่างมีนัยสำคัญทางสถิติกับปัจจัยด้านความสะดวกในการเข้าถึงบริการ และความพึงพอใจในการเข้าถึงบริการ ความเข้าใจ และทัศนคติต่อการคุมกำเนิด ซึ่งอาจทำให้สตรีชาวม้งสามารถแนะนำผู้อื่นในการคุมกำเนิดได้ จึงควรมีการพัฒนาและปรับปรุงระบบบริการเชิงรุก รวมทั้งการให้การศึกษา และความรู้ความเข้าใจแก่สตรีชาวไทยภูเขาเผ่าม้งให้เพิ่มมากขึ้น

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