FACTORS AFFECTING INTENTION TO TAKE PAP SMEAR SCREENING AMONG MARRIED WOMEN IN MANDALAY, MYANMAR

Chit Pyae Pyae Han*, Khemika Yamarat

College of Public Health Sciences, Chulalongkorn University, Bangkok 10330, Thailand

ABSTRACT: The cross-sectional descriptive study was conducted to identify the percentage of married women (age 25-65 years) in Mandalay, Myanmar who have intention to take Pap smear screening and factors affecting their intention to take Pap smear test. The study used Health Belief Model (HBM) and 230 respondents participated in this research. Data were collected by using constructed questionnaire and analyzed by frequency, percentage, Chi-square test and logistic regression. The results showed that 78.3% of respondents had intention to take Pap smear. Age was only significant associated socio demographic factor with intention to take Pap smear screening ($p \leq 0.001$). HBM could predicted the intention to take Pap smear screening because so many facilitating factors associated with intention to take Pap smear screening such as knowledge factor (p=0.006), overall perception (p=0.004). After controlling other factors, age was strongly positive association with intention to take Pap smear (OR:10.45, 95%CI: 3.08-35.44). Overall findings concluded that the percentage for intention rate was so high but majority of respondents didn't answer the exact time. Most of the socio-demographic factors were not influenced their intention and husband and family encouragement was an important factor for women's intend to take Pap test. HBM predicted the intention to take Pap smear screening because knowledge, some perception parts and cues to action were significantly associated with intention.

Keywords: Pap smear screening, Married women, Mandalay

INTRODUCTION

Cancer becomes a leading cause of death around the worldwide, and approximately 10 million people are diagnosed cancer and more than 6 million people are death from cancer every year [1]. Cancer distribution around the world is unequally between developed and developing countries [1]. It was estimated that there would be more than 12 million people new cancer cases in 2007 in worldwide and among them 6.7 million from developing countries and 5.4 million occurred in developed countries [2]. Cancer of the cervix uteri is the second most common cancer for women worldwide, an estimated about 529,409 new cases and 274,883 deaths in 2008 [3]. Regular screening with Pap smear test may reduces as much as 98% of the mortality rate of cervical cancer [4].

The WHO surveys from 57 countries show about the screening rate in developing regions was only 19% but at that time the rate in developed regions was 63% [5]. In Bangladesh, Ethiopia and Myanmar, less than one percent of women who took Pap smear test in their past and more than 90 percent women in Bangladesh, Ethiopia and Malawi had never had a pelvic examination (inspection of the female organs) in their lives [6].

From available data, the incidence rate of cervical cancer among all women age in Myanmar became second place and mortality rate was the first place in recent years [7, 8]

Previous studies [5, 9-16] have confirmed that many factors are related with taking cervical cancer screening and intention to take Pap smear test. Moreover one cross sectional study which used combination HBM and Theory of Reasons Action for intention to take Pap smear showed that age, knowledge and perceived benefit were significant factors to predict Pap smear [9]. The aim of the study is to identify the percentage of married women (age 25-6 years) in Mandalay, Myanmar who have intention to take Pap smear screening and factors affecting on their intention. The study was designed based on Health Belief Model (HBM) which propose about perception of severity and susceptibility on disease and consequences are important factors and that predict the likelihood of individual health behavior [17].

MATERIALS AND METHODS

A cross sectional descriptive/analytical study was carried out in 2 townships of Mandalay, Myanmar.

* *Correspondence to: Chit Pyae Pyae Han*
E-mail: chitpyaepyaehan@gmail.com

Table 1 Number of pregnancy (n=230)

Variable	Number	Percentage
Never	17	7.4
1-2 times	129	56.1
3-5 times	72	31.3
≥6 times	12	5.2

Table 2 Number and percentage of participants who intent to take Pap smear screening and when they will have to take Pap smear test

Variables	Frequency	Percentage
participants who intent to take Pap smear screening (n=230)		
Yes	180	78.3
No	40	17.4
Not sure/ don't know	10	4.3
Participants about when they will take Pap smear test (n=180)		
Yes, within 6 months	18	10.0
Yes, within 1 year	21	11.7
Yes, within 3 years	11	6.1
Yes, don't know when	130	72.2

The study population was total 230 married women age between 25-65 years who were residing in Mandalay, Myanmar. Firstly, purposively selected Mandalay and purposively selected again 2 townships in Mandalay from total 7 townships (Chan Aye Tha Zan and Amarapura townships). In the second step, 1 ward was randomly selected from each township. In the third step, the first blocks from each ward were selected and 115 married women age between 25-65 years who residing in this block were collected from their household numbers.

The questionnaires were adopted from previous related studies [6, 8] and total 56 questions included. 3 experts reviewed, consulted and verified for validity of the questionnaire. After getting the approval from the ethics committee of Chulalongkorn University, pretest was done at Yangon with 23 married women. The results were KR20 for knowledge part was 0.84 and Cronbach-Alpha result for perception was 0.769. Data were collected in March 2012 using interviewer-administered questionnaires in Myanmar language and face to face, house to house visited interviews with the help of 5 assistant researchers. For data analysis, SPSS 17.0 version software was used. Descriptive statistics such as frequency, percentage, mean, standard deviation was used. In order to determine association between independent and dependent variables, Chi-square test and multiple logistic regression was used.

RESULTS

The study consisted 0f 230 married women age between 25-65 years in Mandalay, Myanmar. The age of the subjects ranged from 25-62 years and most of the women were age group 30-39 years (34.8%) and 40-49 years (27.4%). Marriage age ranged from 14-34 and majority of the respondents married age group was 20-24 (36.1%). Most of the women were dependent/housewife (58.3%), 33.5% finished high school education and earned middle income (51.3%). Participants' total number of pregnancy ranged from 0 to 9 and mostly (56.1%) women have 1-2 times of pregnancy (Table 1). Table 2 shows that 78.3 percent of respondents who had intention to take Pap smear screening but among them only 27.8 % answered exact time.

Regarding knowledge level of respondents, it indicated that women who got high level and moderate level of total knowledge score had more intention to take Pap smear than low level group with *p value* 0.006. Moreover, there was significant association between overall perceptions and intention to take Pap smear test with *p value* 0.004. Women with good perception level had more intention (94.1%) to take Pap smear compared than other groups (Table 3).

There is significant association between husband and family member knowledge on cervical cancer and Pap smear test, husband and family member support to do Pap smear test with intention to take Pap smear screening *p values* 0.004 and <0.001 (Table 4).

Table 3 Relationship between knowledge and overall perception on cervical cancer and Pap smear screening with intention to take Pap smear screening (n=230)

Variables	Intention		X^2	*p-value*
	Yes	No		
	N(%)	N(%)		
Knowledge level				
Low level (0-6 score)	60(67.4)	29(32.6)	10.224	0.006*
Middle level(7-9 score)	79(84.0)	15(16.0)		
High level(10-12 score)	41(87.2)	6(12.8)		
Overall perception				
Poor perception (20-38 score)	32 (64.0)	18 (36.0)	11.12	0.004*
Moderate perception (39-50)	116(79.5)	30 (20.5)		
Good perception (51-60 score)	32 (94.1)	2 (5.9)		

*significant

Table 4 Association between husband and family encouragement with intention to take Pap smear screening

Variables	Intention		X^2	*p-value**
	Yes	No		
	N(%)	N(%)		
Husband or family members also have knowledge about cervical cancer and Pap smear screening				
- Yes	116(85.3)	20(14.7)	11.217	0.004*
- No	64(68.1)	30(31.9)		
Husband or family members giving support or advice to do Pap smear test				
- Yes	80(98.8)	1(1.2)		<0.001*
- No	100(67.1)	49(32.9)		

* significant at <0.05and <0,001

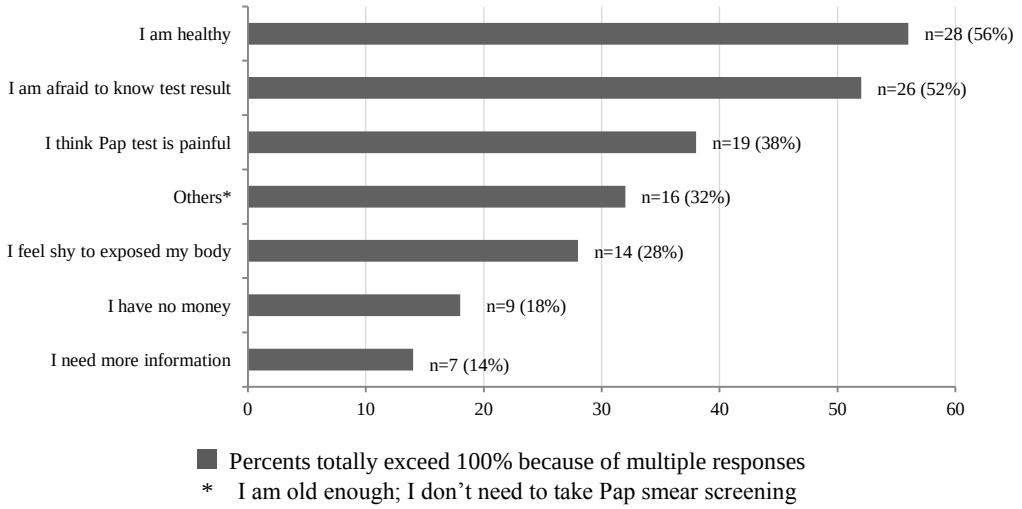


Figure 1 Reasons for no intention to take Pap smear screening in the future (n=50)

Figure 1 show that reasons for no intention to take Pap smear in the future. Mostly 56% women gave reason about they are healthy and 52% answered they afraid to know the test result. 38% against to test for pain and 28% feel embarrassment, and 18% said that they have no money and 14% need more information to take Pap smear. 32% answered other reasons such as "I am old", "I believe myself, and I'll not diagnose disease".

DISCUSSION

The study reports associated factors which are affecting on women's intention to take Pap smear screening. In this study, the prevalence rate for intention to take Pap smear screening was 78.3% however 72.2% from them did not give the exact

time about when they will be taking Pap smear. So that this study shows 27.8% from 180 women really have intention to take Pap smear. But the intention rate is high and it was consistent in previous study [10]. The proportion of intention to take Pap smear among age 30-39 years was higher than other age group. The findings also consistent in several studies which also indicated that age 30-44 were more likely to take cervical cancer screening [9, 12, 13]. Majority of participants have 1-2 times pregnancy that had more intention to take Pap test than other. But the results is not similar with one study from Thailand which found out parity was not influenced on intention [10]. The results from Chi-square test revealed that age and number of pregnancy were significant association with intention and the findings also are not different from eastern and developing countries studies [9, 12]. Other demographic factors such as education, occupation, income were not affecting the intention to take Pap smear in this research and the results were supported by related studies [10, 14].

There was a significant difference between knowledge and overall perception with intention to take Pap smear *p values* are 0.006 and 0.004. Regarding knowledge, more than half of respondents answered correctly 8 out of 12 questions. More than 40 percent of women got moderate level scores but they knew on severity of cancer but didn't for Pap smear test. The findings are similar to some related studies which done in Korean women [9] and Indian women in North Carolina [11]. Perception of respondents such as perceived susceptibility, severity, benefits and barriers were strongly associated with intention to take Pap smear and the findings are consistent with other studies [9, 10, 12, 15]. Regarding husband and family encouragement, the results confirmed hypothesis and findings was similar with other study which was conducted among Myanmar married women for family support in using birth spacing and family planning [16].

After adjusted other variables, multiple logistic regression shows age was only strongly association with intention to take Pap smear screening (OR:10.45, 95%CI: 3.08-35.44). Since this study is cross sectional study and conducted among married women age between 25-65 years who are residing two townships in Mandalay, so that the findings from this study cannot be generalized the whole population of Myanmar. The study also has limited time and resources however the study is at least expected to provide health professionals for related factors affecting intention to take Pap smear screening and health authorities for further intervention program for Pap smear test.

CONCLUSIONS

This study provided important data and factors which are influencing on intention to take Pap smear screening in married women Mandalay, Myanmar and showed about Health Belief Model can predict the intention to take Pap smear screening. High knowledge level and overall good perception were important factors for their intention to take Pap test. According to culture, husband and family support, encouragement was significantly associated with their intention.

Overall, this study suggests the health authorities to emphasize main issues on policy level to encourage and promote in Pap smear screening and HPV vaccination programs. Provision and giving health education, providing accessible and affordable services are recommended because most women need to know deeply about disease and benefit of screening and they most expected for partial finance and services. Additional, this study was conducted among only married women in Mandalay population in urban area; hence it couldn't generalize for all Myanmar married women. Therefore further studies are necessary to look at both rural and urban population. The study did among client side, so that provider side researchs are expected in future studies.

ACKNOWLEDGEMENTS

Thanks to Professor Surasak Taneepanichskul, Dr. Alessio Panza and Dr. Nanta Auamkul for their valuable advices in every step of this study and kindly supports for me. Especially thank the women who so willingly agreed to participate and give interviews. The publishing was possible with partial support provided by the funds made available under the Higher Education Research Promotion and National Research University Project of Thailand, Office of the Higher Education (Project AS1148A).

REFERENCES

1. Park K. Preventive and social medicine. 18th ed. India: BanarsidasBhanot; 2005.
2. American cancer society. Global cancer facts & figures report. Atlanta, GA: American Cancer Society; 2007.
3. International Agency for Research on Cancer [IARC]. World cancer report. Geneve: WHO; 2008.
4. McAvoy BR, Raza R. Can health education increase uptake of cervical smear testing among Asian women? BMJ. 1999; 302: 833-6.
5. Gakidou E. Nordhagen S. Obermeyer Z. Coverage of cervical cancer screening in 57 countries: low average

levels and large inequalities. PlosMedicine. 2008; 5(6): 863-7.

6. World Health Organization [WHO]. Cervical cancer screening in developing countries: Report of a WHO consultation. Geneva: WHO; 2002.
7. Myat K. Cervical cancer growing risk in Myanmar. Myanmar Times journal. 2008; 18(342) [cited 2012 Aug 2]. Available from: http://www.myanmar.com/myanmartimes/MyanmarTimes18-342/n018.htm
8. Myat K. Medical Research Department offers free pap smears. Myanmar Times journal. 2010 Aug 30 - Sept5. [cited 2012 Aug 2]. Available from: http://www.mmtimes.com/2010/news/538/news014.html
9. Ham OK. Intention of future pap smear screening among Korean women. Journal of Cancer Association. 2005; 27(16): 15-23.
10. Swe KS. Factors affecting intention to have pap smear screening among Thai women at Rajvithi Campus, Mahidol University [Master's thesis]. Bangkok: Mahidol University; 2008.
11. Dignan M, Michielutte R, Blinson K, Wells HB, Case LD, Sharp P, et al. Effectiveness of health education to increase screening for cervical cancer among Eastern Band Cherokee Indian women in North Carolina. J Natl Cancer Inst. 1996 Nov 20; 88(22): 1670-6.
12. Bessler P, Aung M, Jolly P. Factors affecting uptake of cervical cancer screening among clinic attendees in Trelawny, Jamaica. Cancer Control. 2007 Oct; 14(4): 396-404.
13. Swaddiwudhipong W, Nguntra P, Mahasakpan P, Chaovakiratipong C, Tatip Y. Coverage and use of cervical cancer screening among women Maesot, Tak Province. Journal of health Science. 1998 Jan-Mar; 7(1): 20-5.
14. Huong NT. Factors affecting the attendance at pap smear screening among women in Hanoi, Vietnam [Master's thesis]. Bangkok: Mahidol University; 1995.
15. Udigwe GO. Knowledge, attitude and practice of pap smear among female nurses in Nnewi, South Eastern Nigeria. Niger J ClinPract. 2006; 9(1): 40-3.
16. Thu A. Role of husbands and wives in fertility regulation in Kyauktan Township in Yangon, Myanmar [Master's thesis]. Yangon: University of Medicine 1, Yangon, Myanamr; 1998.
17. Glanz K, Lewis FM, Rimer BK, editors. Health behavior and health education, theory, research and practice. 2nd ed. San Francisco: Jossey-Bass; 1997.