ORIGINAL ARTICLE

PAP SMEAR SCREENING PRACTICE AMONG WOMEN IN MUKIM JAYA SETIA, KELANTAN

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ABSTRACT

Undergoing a Pap smear screening is widely accepted as a cost-effective screening for detection of cervical abnormalities. In Peninsular Malaysia, cervical cancer was the second commonest cancer among women with incidence rate of 17.8 per 100,000 populations in 2002. Despite the high incidence of cervical cancer, only 26% of eligible woman had undergone Pap smear screening. To determine the prevalence of Pap smear screening, reasons for not undergoing the screening as well as the associated socio-demographic factors among women in Mukim Jaya Setia, a cross-sectional study was conducted in January 2005. Two hundred and ninety five from 350 households were randomly selected by using a Random Digit Table. Two hundred and eighty consented married women, aged 18 years and above were interviewed by the trained interviewers using structured questionnaires. The questionnaires consisted of socio-demographic characteristic, Pap smear screening practice and risk factors of cervical cancer. There were 280 women who responded to the questionnaires. Majority of them were housewives (75%) and with low income (84.3%). Most of the women completed their education up to lower secondary school only (95%). Only 144 (51.4%) women undergo Pap smear screening but not on a regular basis. Most of them were screened only once, which was more than 3 years ago. Lack of knowledge, no accommodation, feel unnecessary and shy and no time were among the reasons that deterred the women from Pap smear screening. Women who were younger and with higher education level had more Pap smear screening compared to the older and with low education level. The practices of Pap smear screening among women in these villages were still low and was associated with age and educational level.

Key word: pap smear screening, cervical cancer, Kelantan

INTRODUCTION

Similar to other developing countries, Malaysia also faces an increasing trend of non-communicable diseases such as cancer, cardiovascular and diabetes. Since three decades ago, cancer was among the five leading cause of death in Malaysia. In 1997, cancer caused 4,500 deaths and it accounts for 10.4% of all deaths in Malaysia. The Penang cancer registry reported 27,000 new cancer cases each year (MOH, 2001).

Cervical cancer is the second commonest cancer worldwide and in Malaysia. In US, 12,085 women were diagnosed with cervical cancer and 3,952 died from it in 2002 (Garcia *et al.*, 2006). In Malaysia, the incidence of cervical cancer was 17.8 per 100,000 populations in 2002 (Zulhizzam *et al.*, 2005). Norhayati (2002), suggested the incidence of cervical cancer in Kelantan was almost equivalent to the national rate.

Pap smear is an effective tool for detection of precancerous state and control of cervical cancer. Over half of the invasive carcinomas can be cured by early detection and effective therapy. Many precancerous lesions are eradicated by timely and appropriate treatment (MOH, 2003; Garcia *et al.*, 2006).

In Malaysia, Pap smear screening was introduced in 1981 to all family planning acceptors and then extended to all women aged 20 to 65 years in 1995 (MOH, 2001). Despite the high incidence of cervical cancer and efforts done by the government and other sectors, only 26% women were screened for cervical cancer (NHMS II, 1996). Pap smear screening was recommended for all women between age 20 and 65 years, who are, or who have been sexually active. Women can undergo Pap smear screening in both government and private clinics as well as other non-government agencies throughout country (CPG, 2003)

Access to healthcare is not the only barrier to reduce cancer burden. Other barriers include quality of care, physical aspect of the facility, beliefs and attitudes toward concept of prevention, fears, lack of social support and cost of the service (Bingham *et al.*, 2003). Other hindrances were lack of knowledge about the screening test and risk factors, and feeling shy because of the intimate procedure (Klug *et al.*, 2005). Lack of requests by the physician or health care professional, not showing any symptoms, as well as socioeconomic and cultural factors, are also the main impediments to Pap smear screening (Gamarra *et al.*, 2005)

The aim of this study was to determine the prevalence of Pap smear screening and the reasons for not undergoing screening as well as the associated socio-demographic factors among women in Mukim Jaya Setia.

METHODOLOGY

Mukim Jaya Setia is a rural area in Kota Bharu, Kelantan. The population was approximately 1709 people, living in 380 households. Most of them are Malays and Muslim. They do various odd jobs and the main occupation is fishing.

A cross-sectional study was conducted in January 2005. We randomly selected 295 from 350 households by using a Random Digit Table. Out of the 295 selected houses, only 280 (95%) households were available for the study.

Two hundred and eighty consented married women, aged 18 years and above were interviewed by trained interviewers using structured questionnaires. The questionnaires were consisted of socio-demographic characteristic, Pap smear screening practice and knowledge regarding Pap smear practice and risk factors for cervical cancer.

Later, the data were entered and analyzed using SPSS version 11.0. Descriptive statistics for numerical data were presented with mean and it's standard deviation or median and it's IQR, while frequency and percentage were calculated for the categorical data. The chi-square test was used to test the association of socio-demographic with the practice and knowledge of Pap smear screening.

RESULTS

There were 280 consented women responding to the questionnaires. The proportion of women 40 years old and above was higher (56.4%) than women below 40 years old (45.6%). Majority were housewives (75.0%) and most of the women had completed their education up to lower secondary school only (95.0%). Less than RM 1000.00 per month formed the largest group (84.3%) for the monthly household income among the women, and about 54.3% of them had monthly income below poverty level, which was set at RM 560.00 for Malaysian.

Only 144 women (51.4%) had Pap smear screening but not on regular basis and most of them had been screened only once (56.3%), and only a few of them had been screened more than twice (15.9%). (Figure 1).

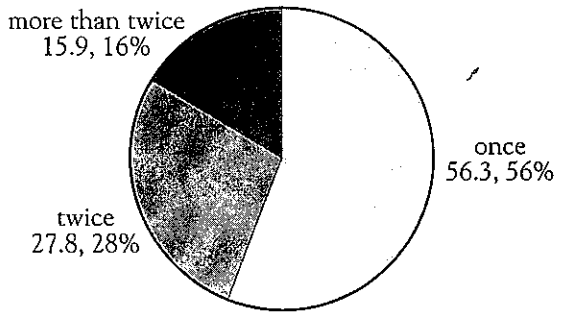

Figure 1. Frequency of Pap smear screening among women in Mukim Jaya Setia

Of the screened women, majority of them (51.4%) was screened more than 3 years ago, and only 19.4% had been screened less than a year ago. (Fig 2).

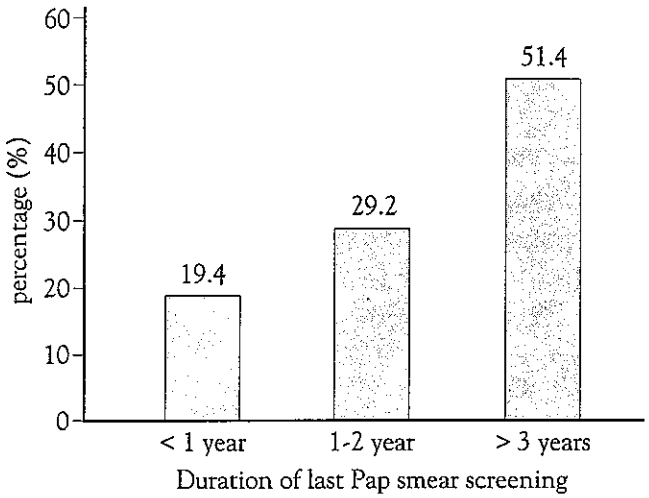

Figure 2. Distribution of duration of last Pap smear screening among women in Mukim Jaya Setia

Figure 3 revealed the frequency distribution of the women undergo Pap smear screening according to specific age groups. Women in the 30 to 39 years old had highest frequency (38.2%) of undergoing Pap smear screening, followed by women in the 40 to 49 years old (29.2%), 23.6% of women below 30 years old and few among women 50 years old and above. The distributions of women who did not undergo Pap smear screening were increased according to the specific age groups. Lowest percentage was among women below 30 years (11.0%), which were increased to the highest percentage in 50 years old and above women (44.9%).

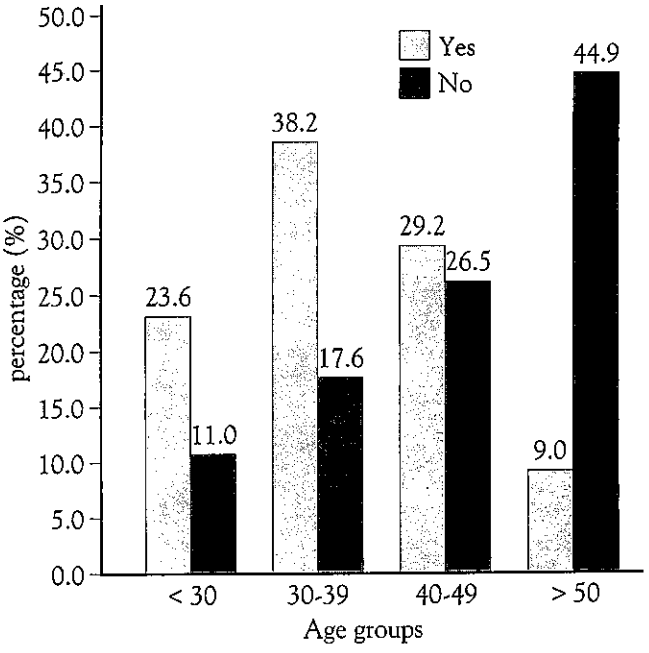

Figure 3. Frequency distribution of Pap smear screening according to age group among women in Mukim Jaya Setia

Table 1 showed the reasons of not undergoes Pap smear screening. Majority of the women don't know (36.7%) the reason for not undergoing the screening, while a high number of them felt that there was no need to do the screening (23.7%), few had no time to go to the clinic and have the screening (13.7%) and a small percentage had transport problem (5%) and shy (7.2%).

Table 2 shows the association between Pap smear screening and socio-demographic characteristics. There were significant associations between Pap smear screening and age ($p<0.001$), and educational level ($p<0.001$). Younger women, less than 50 years old, and higher education level had more Pap smear screening compared to those in the older age and with lower education level.

Table 1. Reasons of not practicing Pap smear screening among the women in Mukim Jaya Setia

Reasons	n	%
Don't know	51	36.7
Feel no need	33	23.7
No Time	19	13.7
Feel shy	10	7.2
No transport	7	5
Other reasons	16	11.5

Table 2. Socio-demographic characteristic of women in Mukim Jaya Setia regarding Pap smear screening

Variables	Practice (n=144)		Do not practice (n=136)		P value
	N	%	N	%	
Age (years)					
< 30	34	69.4	15	30.6	< 0.001
30-39	55	69.6	24	30.4	
40-49	42	53.8	36	46.2	
> 50	13	17.6	61	82.4	
Occupational status					
Housewife	110	52.4	100	47.6	0.378
Working	34	49.0	36	51.0	
Education level					
Primary and below	40	35.1	74	64.9	< 0.001
Secondary	100	65.8	52	34.2	
Tertiary	4	28.6	10	71.4	
Monthly household income (RM)					
< 500.00	70	45.8	83	54.2	0.225
500.00 - 999.00	50	60.2	33	39.8	
1000.00 - 1499.00	14	60.9	9	39.1	
> 1500.00	10	47.6	11	52.4	

DISCUSSION

From this study, 51.4% had Pap smear screening. It is high compared to only 26% among Malaysia population (NHMS II, 1996) and 25.3% among Malaysian electronics women (Chee *et al.*, 2003). Our finding of high prevalence of Pap smear screening could be due to aggressive campaign by the health care workers as well as the policy that required all women who had delivered their babies to undergo Pap smear screening. With majority of the women in this study were housewives (75%), the prevalence of the screening was expected to be high. As for the low prevalence among the Malaysian electronic women could be due to the lack of time that prevent the women from getting the screening.

Compared our finding, a study among Argentina's women showed slightly lower prevalence of Pap smear screening in their lifetime (46.5%) (Gamarra *et al.*, 2005). However, in Los Angeles, a study showed the high prevalence of Pap smear screening (97%) (Chau *et al.*, 2002), which was almost equal to the women who reside in Washington DC, (96%) (Fernandez *et al.*, 1998).

Our study showed, the respondents who did Pap smear screening was 23.6 % for women under 30 years old, 38.2 % among the 30-39 years old, 29.2 % in the 40-49 years old and only 5% for women 50 years old and above. The specific age groups prevalence in our study was slightly lower compared to a study done in Hospital Universiti Sains Malaysia (HUSM) and Hospital Raja Perempuan Zainab II (HRPZ II), which reported the prevalence of Pap smear screening was 36.8 % for women below 30 years old, 41.2 % among 30-40 years old, 16.5 % in the 40-50 years old and 5.2 % for women above 50 years (Nor Hayati *et al.*, 1996). Chau *et al.* (2002), revealed

that women in younger age group (40-49) were more likely to received Pap smear screening (63%) compared to the older age group, >50 (48%).

The findings on the reasons deterring women from practicing Pap smear screening were similar to other studies. Lack of knowledge about cervical cancer and the risk factors, reduces participation in the Pap smear screening. Pap smear screening is a very intimate procedure which can be embarrassing as well as not being aware of such procedure exist were among the reasons noted for not undergoing Pap smear (Klug *et al.*, 2005).

For those who are willing to have the screening done, lack of transportation, low economic status, language barrier, less access to the facilities and objection from the spouse were the factors that hinders the women from practicing Pap smear screening (Scarinci *et al.*, 2003). Socioeconomic barriers such as illiteracy, treatment cost, lack of transportation as well as problem with child care also affect the uptake of the screening (Rabasca, 1999), which were also demonstrated in our study.

Our study of Pap smear screening was associated with age and educational level, was consistent with another study (Chee *et al.*, 2003). There was significantly increased in Pap smear screening among women with higher education level and younger age group. The finding could be due to women with higher education level were more knowledgeable and had higher socioeconomic status. Women in younger age groups tend to have babies and a higher chance of being contacted by health care workers to undergo Pap smear screening.

Limitation of the studyinclude the self reported information on Pap smear screening which might contribute to misclassification bias in view that they might give the information in their best interest as none of the records regarding their Pap smear screening were examined for verification.

CONCLUSION AND RECOMMENDATIONS

The practice and level of knowledge of women in these villages regarding Pap smear screening were still low and was associated with age and educational level.

Empowerment the women in family and society, development in the social sector, enhancement of women status and education as well as higher family socioeconomic status may directly influence decision making in family life, in turn to improve Pap smear screening among the village women.

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REFERENCES

1. Bingham A, Bishop A, Coffey P, *et al.* Factors affecting utilization of cervical cancer prevention services in low resource settings. *Salud Publica Mex* 2003; 45(3): 408-416

2. Chau S, Chin M, Chang J, *et al.* Cancer Risk Behaviors and screening rates among homeless adults in Los Angeles County. *Cancer Epidemiol Biomarkers & Prevention* 2002; 11: 431-438

3. Chee HL, Rashidah S, Shamsuddin K & Intan O. Factors related to the practice of breast self examination and pap smear screening among Malaysian women workers in selected electronic factories. *BMC Women's Health* 2003; 3(3): 1472-6874

4. Cheek J, Fuller J, Gilchrist S, Maddock A & Ballantyne A Vietnamese women and pap smears: issues in promotion. *Australian & New Zealand J Public Health* 1999; 23(1): 27

5. Fernandez ME, Tortolero-Luna G & Gold RS. Mammography and Pap smear test screening among low income foreign-born Hispanic women in the USA. *Cad Saude Publica* 1998; 14(3)

6. Gamarra CJ, Paz EPA & Gripe RH. Knowledge, attitudes and practice related to Papnicolaou smear test among Argentina's women. *Rev. Saude Publica* 2005; 39(2)

7. Garcia AA, Hamid O & El-Khoueiry A. Cervical cancer. eMedicine World Medical Library 2006. www:emedicine com (accessed 1 June 2006)

8. Klug SJ, Hetzer M & Blettner M. Screening for breast and cervical cancer in a large German city: participation, motivation and knowledge of risk factors. *Eur J Public Health* 2005; 15(1): 70

9. Ministry of Health Malaysia. Ministry of Health Annual Report, 2001

10. Ministry of Health Malaysia. Ministry of Health Annual Report, 2002

11. Ministry of Health Malaysia. Management of Cervical Cancer, Clinical Practice Guidelines, 2003

12. Nor Hayati O, Ayub MC, Aziz WAA, Muda M, Wahid R & Selvarajan S. Pap Smear-Is an effective screening methods for cervical cancer neoplasia? An experience with 2289 cases. *Mal J Med Sci* 1997; 4(1):45-50.

13. Nor Hayati O. Cancer of the Cervix- From bleak past to bright future; A review, with an emphasis on cancer of the cervix in Malaysia. *Mal J Med Sci* 2002; 9(2): 13-26

14. Rabasca L. Screening pleas now culture-focused. *APA Monitor Online* 1999; 30(6).

15. Scarinci IC, Beech BM, Kovach KW & Bailey TL. An examination of Sociocultural Factors associated with cervical cancer screening among low-income Latina immigrants of reproductive age. *J Immigrant Health* 2003; 5(3): 119

16. Zulhizzam A, Kamariah H, Noor Azwa MS & Azmi H. Review of Pap Smears Result in Perlis Year 2003- 2004. *NCD Malaysia* 2005; 4(4): 18-21