

FACTORS PREDICTING ANTENATAL CARE UTILIZATION AMONG POSTPARTUM WOMEN IN TU DU HOSPITAL, HO CHI MINH CITY, VIETNAM.

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ABSTRACT

This study determined the utilization of antenatal care and factors predicting antenatal care utilization among postpartum women. Predictive correlation study was conducted in two postpartum wards at Tu Du hospital where the sample size was 316 postpartum women. A self-report questionnaire with five sections was used to collect data. The results showed that almost respondents had antenatal care utilization more than or equal to three times (74.7%). Housewives were more likely 2.02 times to have antenatal care utilization less than three times compared to working women ($p = 0.04$). Women who lived in low income family and moderate income family were more likely 6.86 times and 2.93 times to get antenatal care utilization less than three times compared to women with high income family ($p = 0.04$, < 0.01 , respectively). Multiparous women were 2.33 times to have antenatal care utilization less than three times compared to primiparous women ($p = 0.02$). These findings indicated that the health care providers, health care system should pay more attention to women in low income family, housewives, and multiparous women. Health education concerning the importance of antenatal care should be provided to increase the antenatal care utilization among Vietnamese women.

Keywords: Antenatal care utilization, postpartum women, primiparous women, family's income.

INTRODUCTION

Vietnam is a developing country with a population about 87,848,000 people and approximately 1,467,000 births in 2010 (UNICEF, 2010). Maternal and infant mortality rates in Vietnam were decreased a few years ago but remain high with the maternal and infant mortality rates of 69 per 100,000 live births and 16 per 1,000 live births, respectively (United Nation, 2010a, 2010b). Antenatal care is effective in improving pregnancy outcomes through early detection and management of complications (Brown et al., 2008; Zanconato et al., 2006). Early antenatal care utilization plays an important role on perinatal outcomes such as reducing the rates of preterm labor (Orvos et al., 2002), low birth weight (Petrou et al., 2003; Orvos et al., 2002), and perinatal death (McCawBinns et al., 1994). According to the recommendation from Vietnam Ministry of Health (2003), every pregnant woman should come to antenatal care at least three times during pregnancy, once per trimester. However, a large number of Vietnamese women do not sufficiently utilize antenatal care (Lieu et al., 2007; VMOH, 2003). Previous studies indicated that antenatal care utilization depended on many factors (Agus and Horiuchi, 2012; Ali et al., 2010; Ciceklioglu et al., 2005; Effendi, 2008; Trinh, 2012). In Vietnam, information about the study on antenatal care utilization is limited; almost previous studies were conducted in Northern Vietnam and focused on rural areas (Lieu et al., 2007; Tran et al., 2011). This study determined the utilization of antenatal care and factors predicting antenatal care utilization among postpartum women in Tu Du hospital, Ho Chi Minh City, Vietnam.

MATERIALS AND METHODS

A cross sectional study was conducted at Tu Du hospital from January to February, 2013. The study population was postpartum women who gave a birth and were transferred to the postpartum wards in the hospital.

Using simple random sampling technique, 316 postpartum women were asked to complete the self-report questionnaire. The questionnaire consisted of

five parts including personal background, pregnancy and illness level, antenatal care utilization, attitude toward antenatal care utilization, and knowledge toward antenatal care. The attitude toward antenatal care utilization consisted of 12 questions, each question had five choices of the answer, where scores of attitude toward antenatal care were given as five point-rating scales, i.e., strongly agree = 5, agree = 4, unsure = 3, disagree = 2, and strongly disagree = 1 for positive statements and vice versa for negative statements. The Cronbach's alpha coefficient of this questionnaire was 0.82. Knowledge toward antenatal care was measured by asking 12 questions with three choices of the answer, the score was recorded, i.e., one for a correct answer, and 0 for an incorrect answer, or do not know, or no response. The reliability for knowledge about pregnancy was assessed by Kuder-Richardson 20 with the result as 0.75.

RESULTS

The result of descriptive analysis showed that 236 postpartum women (74.7%) answered that they had antenatal care utilization more than or equal to three times during their pregnancy. Bivariate analyses revealed that housewives utilized antenatal care services were significantly less than working women at the level $p < 0.01$, as shown in Table 1. Women with low and moderate income family who used antenatal care were significantly less than women who live in high income family at the level $p < 0.001$, as shown in Table 1. Multiparous women visited antenatal care were significantly less than primiparous women at the level $p < 0.01$. The attitude and knowledge toward antenatal care were strongly associated with overall of antenatal care utilization during pregnancy among postpartum women ($p < 0.001$).

The multiple logistic regressions showed that housewives were more likely 2.02 times to get the antenatal care utilization less than three times compared to working women at 95% CI, 1.02 – 4.12. The multiple logistic regression values for each one point increased on the attitude, knowledge toward antenatal care utilization of women were

0.94 time at 95% CI, 0.89 – 0.98, and 0.84 time at 95% CI, 0.77 – 0.91, respectively, where they received antenatal care less than three times. The multiple logistic regression values of women with low, and moderate income family were 6.86 times at 95% CI, 1.10 – 42.79, and 2.93 times at 95% CI, 1.32 – 6.49,

respectively, which received antenatal care utilization less than three times compared to women with high income family. The multiple logistic regression value of multiparous women who had antenatal care utilization less than three times was 2.33 times of primiparous women at 95% CI, 1.17 – 4.67 (Table 2).

Table 1. Antenatal care utilization between subgroups (N = 316).

Variables		Antenatal care utilization				p -value
		< 3 times (n=80)		≥ 3 times (n= 236)		
		n	(%)	n	(%)	
Occupation ^a	Housewives	33	(37.5)	55	(62.5)	< 0.01
	Working women	47	(20.6)	181	(79.4)	
Attitude toward ANC utilization ^b						< 0.001
Knowledge toward ANC ^b						< 0.001
Family's income ^c	< 1,000,000 VND	4	(66.7)	2	(33.3)	< 0.001
	1,000,000 – 2,000,000 VND	25	(48.1)	27	(51.9)	
	> 2,000,000 VND	51	(19.8)	207	(80.2)	
Parity ^a	Primiparous	52	(21.1)	195	(78.9)	< 0.01
	Multiparous	28	(40.1)	41	(59.9)	

^aFisher Exact test, ^bPoint – biserial test, ^cChi - square test

Table 2. Showing the strength of association between significant factors and overall of ANC utilization during pregnancy (N = 316).

Variables	B	Adjusted OR	95% C.I	p - value
Occupation				
Working women		1.00		
Housewives	0.70	2.02	1.02 - 4.12	0.04
Attitude towards ANC utilization	-0.06	0.94	0.89 - 0.98	< 0.01
Knowledge toward ANC	-0.17	0.84	0.77 - 0.91	< 0.001
Family's income				
High income		1.00		
Moderate income	1.07	2.93	1.32 - 6.49	< 0.01
Low income	1.93	6.86	1.10 - 42.79	0.04
Parity				
Primiparous		1.00		
Multiparous	0.85	2.33	1.17 - 4.67	0.02

DISCUSSION

The study examined the antenatal care utilization among postpartum women in Tu Du

hospital, Ho Chi Minh City, Vietnam. The number of antenatal care utilization more than or equal to three times in this study was higher than those

of other countries such as Lao (46.1%) (Ye et al., 2010), and previous study in Vietnam, which was conducted by Lieu et al. (2007) with only 58% of women who utilized antenatal care services was more than or equal to three times. The reason for increasing the antenatal care utilization could be owing to the socioeconomic development in Vietnam in recent years, especially in Ho Chi Minh City, where the socioeconomic condition is better than other provinces in Southern Vietnam. One more possible explanation for the antenatal care utilization is that the women obey recommendation from the Government, that is only two children per family, and that is why they take care of their pregnancy carefully. As a consequence, they will come to receive ANC services as much as possible.

According to the occupation of women, housewives were more likely to have antenatal care utilization less than three times compared to working women. It can be explained that working women have monthly salary; usually the average income per month for working women is about 4,000,000 VND to 6,000,000 VND which is categorized as high income. Therefore, working women can afford for the expenses at ANC services; they will seek the ANC utilization regularly more than women who are housewives. This finding was consistent with previous studies, which revealed that women who had employment were one of the positive important factors affecting the use of antenatal care (Beeckman et al., 2010, Chakraborty et al., 2003; Ye et al., 2010).

According to the attitude toward antenatal care utilization of postpartum women, there was a strong statistical significance association between attitude toward antenatal care utilization and overall of antenatal care utilization during pregnancy. It was shown that nearly half of respondents in this study agreed that the waiting time for receiving antenatal care utilization was too long for them. This result was also found in the study of Dairo and Owuyokun (2010) with nearly 60% of women agreed that long waiting time was the reason for not attending antenatal clinic. Thus, one of the strategies to increase antenatal care is improving the time to receive antenatal care services. An

appropriate time for each antenatal visit and provide the comfortable environment during waiting time period for women is the method to increase the scores of attitude toward antenatal care utilization among women. This finding was consistent with other studies of developing countries which revealed that postpartum mothers had negative attitude toward antenatal care more likely to irregular antenatal care visit than the mothers had positive attitude (Effendi, 2008; Ye et al., 2010).

The finding revealed that there was a significant association between knowledge toward antenatal care and antenatal care utilization among respondents. The respondent's knowledge has played a very important role in the utilization of antenatal care. Improving knowledge about the benefits of antenatal care for pregnant women is an important element to increase the antenatal care utilization among women. Once they become knowledgeable about antenatal care, they will take better care of their own health. This finding was consistent with the study of Effendi (2008) and Ye et al. (2010) which revealed that women who had good knowledge get more proportion of antenatal care utilization compared to women who had poor knowledge.

Regarding to family's income, respondents with low income family and moderate income family were more likely to get antenatal care utilization less than three times compared to women with high income family. It can be explained that in order to utilize antenatal care services, the women have to spend money for transportation and medical expenses. That is why women have low and moderate incomes have antenatal care utilization less than three times during pregnancy. If the antenatal care services are reasonably plentiful and can be used without expenses, it might be used more frequently by the pregnant women. In order to support and encourage pregnant women to visit the antenatal care, the Government should implement free antenatal care services for pregnant women who are poor. This finding was consistent with previous study in Vietnam by Tran et al. (2012), and with other studies by Ye et al. (2010), Beeckman et al. (2010), and Effendi (2008), which indicated that women who had high incomes

were more likely to obtain antenatal care services than women with low incomes.

Multiparous women were more likely to get antenatal care utilization less than three times compared to primiparous women. It can be explained that women who are multiparous are a little bit scared when they come to antenatal care services because the Government encourages each couple to have only two children. Therefore, women who already have more than two children may want to hide their pregnancy as long as possible, to avoid penalties. As a consequence, they may not attend antenatal care or start antenatal care visit later than the others. One more possible explanation for the low ANC attendance among multiparous women is a lack of understanding concerning the importance of ANC during pregnancy. The multiparous women may think that they have enough experience about pregnancy based on their previous pregnancy; therefore, they may not attend ANC services in current pregnancy. This finding was consistent with other studies, which revealed that women with two or more children receiving antenatal care lower than those of women with one child (Agus and Horiuchi, 2012; Ali et al., 2010; Beeckman et al., 2010; Ciceklioglu et al., 2005).

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