

Antenatal Care Practices in Tamang Community of Hilly Area in Central Nepal

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INTRODUCTION

Two of the most important indicators of health of a country are life expectancy and maternal mortality rates.¹ It was supposed that interventions would be needed earlier during the pregnancy to identify women at risk of getting pregnancy related complications, if the mortalities were to be averted.² World Health Organization (WHO) recommends four focused antenatal care (ANC) visits as sufficient for normal pregnancy.³ Antenatal Chekcup (ANC) includes education, counseling, screening and treatment to monitor ailments and to promote health of the mother and

foetus.

Nepal Demography and Health Survey (NDHS) 2006 recommends that the quality of ANC can be assessed by looking at the type of provider, the number of visits and the timing of the first visit.⁴ ANC visits by pregnant women is 43.7%, institutional delivery is 17.7%, delivery by Skilled Birth Attendance is 18.7% and postnatal checkups is 33% in Nepal.⁵ In South East Asian Region, ANC coverage in Sri Lanka is 99% and 44% in Nepal, Skilled birth attendance during delivery in Sri Lanka is 99% and

ABSTRACT

Background

Antenatal care is provided during pregnancy to save lives of mother and foetus. World Health Organization recommends four focused visits as sufficient for normal pregnancy.

Objective

The objective of the study was to find out antenatal care practices in Tamang community of hilly areas of central Nepal.

Methods

Descriptive cross-sectional study was conducted in Tamang community of Lalitpur district. Systematic random sampling method was used to collect data from April to May 2011. Data of 194 women having ≥ 3 years of children was collected and analyzed in descriptive and inferential ways.

Results

Antenatal visits were made by 78.9% (153) of women but only 46.4% (71) completed four antenatal visits. Mean visit was of 3.5 ± 1.13 times. Ninety four (61.4%) of first antenatal visits attainders completed the fourth visit. Age of women and antenatal visits, taking tetanus toxoid injection and knowledge on work of iron tablets exhibited significant association at 95% level of confidence ($p < 0.05$). There was also significant association between numbers of childbirth and antenatal visits at 95% level of confidence ($p < 0.05$).

Conclusions

There was a high rate of early marriage and early pregnancy in the Tamang communities. Women did not place high importance on antenatal visits. A large percentage did not complete all four recommended antenatal visits. Use of necessary medicine like iron, albendazole tablets and tetanus toxoid injection was often incomplete.

KEY WORDS

antenatal visits, central Nepal, hilly areas, Tamang

19% in Nepal and Maternal Mortality Rate (MMR) is lowest in Sri Lanka (23/100,000 live birth) and highest in Nepal (539/100,000 live birth), all of which can be linked.⁶ This study was conducted to find out the status of ANC visits by pregnant woman in the Tamang community.

METHODS

A Quantitative descriptive cross-sectional study was conducted to find out the ANC practices in the Tamang community of Nallu, Bhardeu and Chaughare Village Development Committees (VDCs) of Lalitpur district, central Nepal. Data was collected using two stage cluster and systematic random sampling methods to select 194 women having ≤ 3 years children for interview to fill the questionnaire. Data was collected from April to May 2011 after getting approval from institutional review committee of Kathmandu University School of Medical Sciences (KUSMS) and the District Development Committee of Lalitpur district. The participation for the study was voluntary. All the participants were able to give complete required information for the study. The data was entered in SPSS (statistical package for social science) version 16 for further analysis. Descriptive as well as inferential statistics were measured. Percentage and average were used as descriptive statistics and chi square test was used as inferential statistics.

Table 1. Socio-demographic characteristics.

Age group	Frequency (%)
15-19 years	18 (9.3)
20-24 years	83 (42.8)
25-29 years	50 (25.8)
30-34 years	24 (12.4)
35-39 years	13 (6.7)
40-44 years	6 (3.1)
Total	194 (100.0)
Age at marriage in group	
10-14 years	11 (5.7)
15-19 years	124 (63.9)
20-24 years	53 (27.3)
25-29 years	4 (2.1)
30 + years	2 (1.0)
Total	194 (100.0)
Age at first pregnancy in groups	
15-19 years	87 (44.8)
20-24 years	91 (46.9)
25-29 years	14 (7.2)
30 + years	2 (1.1)
Total	194 (100.0)
Parity of the women	
First parity	77 (39.7)
Second parity	59 (30.4)
Third parity	31 (16.0)
Four and more parity	27 (13.9)
Total	194 (100.0)

RESULTS

The quantitative information was obtained from 194 women who have at least a child ≥ 3 years.

Table 1 shows age of respondents, age at marriage, age at the first pregnancy and parity of the respondents. The mean age of the respondents was 25.62 years (SD, 3.38 years). The mean age at marriage was 18.38 years (SD, 2.90 years). The mean age at first pregnancy was 20.08 years (SD, 2.98 years). The mean child birth was 2.13 (SD 1.297).

Table 2. Antenatal care practices.

ANC visits	Frequency (%)
Yes	153 (78.9)
No	41 (21.1)
Total	194 (100.0)
Reasons for non-attendance of ANC (n=41) (multiple response question)	
Afraid/ Embarrassed	23 (56.1)
No problems felt	12 (29.3)
Think no necessary	11 (26.8)
No time	10 (24.4)
No money	1 (2.4)
Health institution is far way	1 (2.4)
Number of ANC checkups attended	
Once	11 (7.2)
Twice	20 (13.1)
Three times	27 (17.6)
Four times	71 (46.4)
Five times	24 (15.7)
Total	153 (100.0)
Completed months during first visit ANC visit (n=153) (multiple response)	
First month	13 (8.5)
Second month	14 (9.2)
Third month	68 (44.4)
Fourth month	21 (13.7)
Fifth month	16 (10.5)
Sixth month	16 (10.5)
Eighth month	2 (1.3)
Ninth month	3 (2.0)
Total	153 (100.0)

Table 2 shows that more than one fourth (78.9%) of respondents attended ANC visits, which was a bit higher than the national average (74.0%). The findings revealed that even though the first ANC visit was usually satisfactory, follow up visits were continually more poorly attended. The number of respondents who attended ANC visits steadily decreased between the first and second, second and third, and third and fourth visits. Even though ANC visits were made, they were not the focused ones.

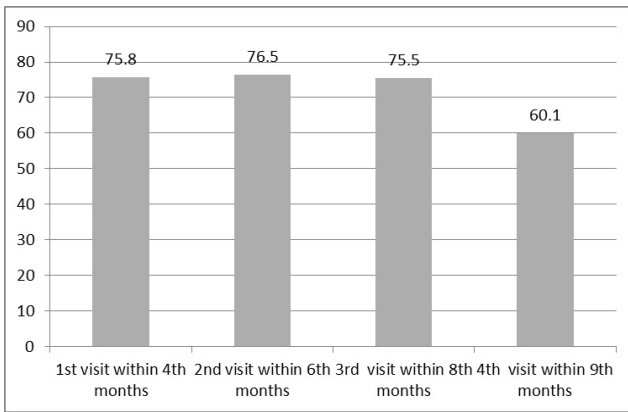


Figure 1. Focused ANC visit within particular months (n= 153)

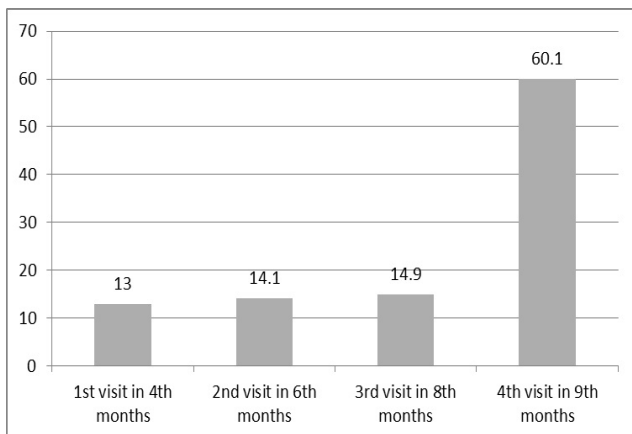


Figure 2. Focused ANC visit in particular month (n= 153).

Table 3. Medicine and supplements intake practices.

Medicines (multiple response question)	Frequency (%)
Tetanus Toxoid injection	150 (98.0)
Iron tablets	145 (94.8)
Albendazole	96 (62.7)
Reasons for not taking iron tablets (n=8)	
Fear of bad effect	2 (25.0)
Did not like	2 (25.0)
Did not know the importance	2 (25.0)
Forgot	2 (25.0)
Total	8 (100.0)

Table 3 indicates that ninety eight percent of the pregnant women took the tetanus toxoid (TT) injections, about ninety five percent received iron tablets and nearly two thirds received albendazole.

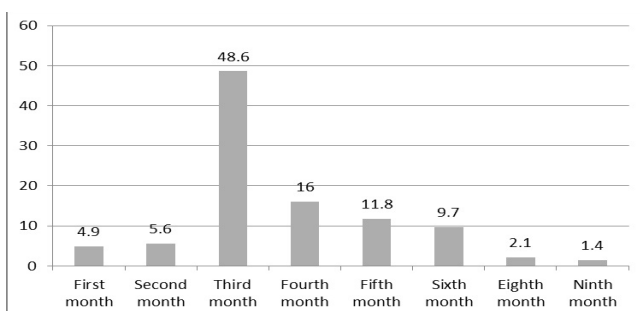


Figure 3. Month when iron tablet consumption was started in percentage (n = 145).

Table 4. Comparison of socio-demographic parameters and antenatal services.

Age groups in years	ANC visits during last pregnancy		P value
	Yes	No	
15-19 years	17 (94.4%)	1 (5.6%)	0.000**
20-24 years	73 (88.0%)	10 (12.0%)	
25-29 years	39 (78.0%)	11 (22.0%)	
30-34 years	15 (62.5%)	9 (37.5%)	
35-39 years	4 (30.8%)	9 (69.2%)	
≥ 40 years	5 (83.3%)	1 (16.7%)	
Number of childbirth	ANC visits during last pregnancy		P value
	Yes	No	
One	69 (89.6%)	8 (10.4%)	0.000**
Two	51 (86.4%)	8 (13.6%)	
Three	22 (71.0%)	9 (29.0%)	
Four	10 (58.8%)	7 (41.2%)	
Five	0 (0.0%)	5 (100.0%)	
Six	1 (50.0%)	1 (50.0%)	
Seven	0 (0.0%)	3 (100.0%)	
Total	153 (78.9%)	41 (21.1%)	
Age groups in years	Taken iron tablet as instruction given		P value
	Yes	No	
15-19 years	16 (88.9%)	2 (11.1%)	0.000**
20-24 years	71 (85.5%)	12 (14.5%)	
25-29 years	36 (72.0%)	14 (28.0%)	
30-34 years	14 (58.3%)	10 (41.7%)	
35-39 years	2 (15.4%)	11 (84.6%)	
≥ 40 years	5 (83.3%)	1 (16.7%)	
Total	144 (74.2%)	50 (25.8%)	
Age groups in years	Taking TT injection during pregnancy		P value
	Yes	No	
15-19	14 (77.8%)	4 (22.2%)	0.012*
20-24	72 (86.7%)	11 (13.3%)	
25-29	38 (76.0%)	12 (24.0%)	
30-34	17 (70.8%)	7 (29.2%)	
35-39	6 (46.2%)	7 (53.8%)	
≥ 40 years	3 (50.0%)	3 (50.0%)	
Total	150 (77.3%)	44 (22.7%)	

** Significant at 99% level of confidence

Table 4 shows that there was statistically significant association between age groups and the attendance of ANC services, knowledge on the work of iron tablets and taking iron tablets as instruction given by the health workers at 95% level of confidence (p <0.05). Likewise, numbers of pregnancy and ANC visits during most recent pregnancy demonstrated statistically significant association at 95% level of confidence (p <0.05).

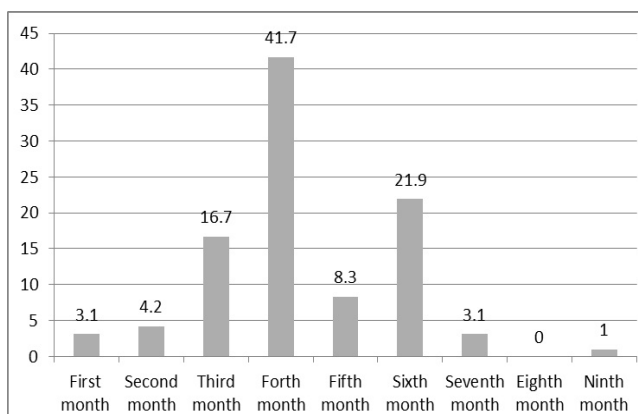


Figure 4. Month when albendazole consumption was started in percentage (n = 145).

DISCUSSION

Poor antenatal care is an important risk factor for adverse pregnancy outcomes among women.² In current study, the antenatal care (ANC) visits were made by 78.9% (153) of women which was higher than that of national average (43.7%).⁴ It may be due to nearby accessibility of health facilities as stated by Magadi et al that the frequency of antenatal care is also influenced by the accessibility of antenatal care service.⁸ Women's health issues in general and women's health care needs in particular are foremost among the public health priorities.⁹ All pregnancies involve some risks to the mother and/or foetus, and it is important to prevent, detect and manage complications early before they become life-threatening emergencies. ANC visit is an opportunity to get information by women about the danger signs and symptoms for which assistance should be sought from a health care provider without delay.¹⁰ Shiffman suggested that antenatal visits enable health personnel to provide information about nutrition, hygiene, and danger signs.¹¹ There is a strong association between the level of antenatal care and delivery care.^{8,12}

In present study majority (72.7%) of women replied the purpose of ANC visits were to know the health condition of the mother and fetus. Among 194 participants, 46.4% (71) completed four ANC visits but the visits were not the focused ones as suggested by standard guidelines.^{2,13} Few women went for first visit even within 8th or 9th months of pregnancy. Ideally, the total four ANC visits has to be done at the beginning of 4th, 6th, 8th and 9th months of pregnancy respectively.¹³ In current study only 94 (61.4%) of first ANC attendees completed the fourth ANC visit. Even though first ANC visit was satisfactory, gradually follow up visits were lost. Rooney argued that, whether antenatal care can prevent maternal mortality and serious morbidity is a difficult question to answer, but antenatal care is more beneficial in preventing adverse pregnancy outcomes when it is sought early in the pregnancy and is continued through delivery.¹⁴

Five percent (8) of women, who attended ANC visits did not take the iron tablet, the reasons behind it were fear of side effect, due to dislike, due to not knowing the importance

of iron and due to forgetting to take iron tablets. In our current study, iron tablets were started either as early as first month of pregnancy by few women or late months by a few women which practices are deleterious to the health of mother and foetus. Ninety eight percent of the ANC attendees took tetanus toxoid (TT) vaccine which is higher than the national average (63.0%).^{4,12} However, the complications of pregnancies frequently occur among women with no risk factors, hence cannot be predicted, although many may be prevented.^{11,15} Thus, ANC visits are not to reduce maternal mortality but to reduce the likelihood that a pregnant woman will experience serious complications of pregnancy or childbirth and most importantly, would enable health care providers to identify those women at high risk for complications.¹⁵ The use of ANC visits, especially adequate ANC visits is an important factor for safe outcomes. Similarly, Matthews et al revealed that the possibilities of complications that may occur are potentially serious and routine checks are highly desirable during pregnancy.¹⁶

Among the respondents, adolescents and women in the oldest age bracket made the best ANC visits that was significant at 95% level of confidence ($p < 0.05$), which was consistent with the other studies.^{7,17} The reasons for not attendance of ANC were diverse. Among 41 ANC not attenders it was due to afraid/ embarrassment 56.1% (23), problems were not felt 29.3% (12), thought not necessary 26.8% (11), did not have time 24.4% (10), and unclear response 4.9% (2). This result was inconsistent with the findings of Rahman et al that poor attendees were younger than good attendees.¹⁹

Obermeyer and Potter illustrated that the age at marriage was not significant predictors of utilization of prenatal care, which is consistent with our present study.²⁰ Incongruent to the above findings it was revealed that, age had a negative relationship with the utilization of ANC and it was found that the young women were more likely to seek antenatal care than older one.^{3,21} In a pattern study of prenatal care utilization in the United States, Kogan et al found that the young were more likely to begin care later than adults, but similar proportions of young had intensive utilization.²² These finding also indicate that maternal age is one of the important predictors for ANC.

Current study revealed that there was statistically significant association between numbers of childbirth and the ANC visits at 95% level of significance ($p < 0.05$) as pointed out by other authors that antenatal visit was positively associated with parity.^{3,7,16,23}

Current study revealed that 82% of respondents experienced no complications during their most recent pregnancy period. Even the problems experienced were minor problems. WHO recommends that a woman without complications have to visit at least four ANC to provide sufficient antenatal care to make possible to detect complications associated with a pregnancy and if any

complications occur more frequent visits are advised and admission to a health facility may be necessary. 2,24

CONCLUSION

The study observed that there was a high rate of early marriage and early pregnancy in the Tamang community in the study area. The women of the surveyed communities did not place high importance on antenatal care. In some cases, the women simply did not know the importance of ANC visits, and local health institutions failed to help

the respondents to learn about importance of antenatal visits. Among the surveyed women, a large percentage did not complete all four recommended ANC visits. Use of necessary medicine such as iron tablets, albendazole tablets and TT injection was also often incomplete. Lack of knowledge about the reasons for antenatal care practices, health facilities or money led many of the respondents to only partially complete the recommended antenatal visits in local health institution.

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