



RESEARCH ARTICLE

REVIEW ARTICLE ON UTILIZATION OF ANTENATAL CARE SERVICES

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ABSTRACT

Antenatal care (ANC) is the care of a woman throughout her pregnancy. Almost 90% of maternal deaths occur in developing countries and over half a million women die each year due to pregnancy and childbirth related causes. Many women in developing countries do not receive such care. The reasons for high MMR in India are inadequate access and underutilization of health services. Other common reasons are high illiteracy among females, early marriages, ignorance, malnutrition, social factors etc. So utilization of these services by the beneficiaries remain unsatisfactory. Awareness should be developed in the community about the importance of registration for ANC, educating women about detection of complications during pregnancy, importance of TT Inj., IFA tablet, extra nutrition etc. Misconceptions and fears regarding child birth should be reduced during prenatal care so that it may contribute to an increase in the utilization of delivery services.

INTRODUCTION

Antenatal care (ANC) is the care of a woman throughout her pregnancy. Almost 90% of maternal deaths occur in developing countries and over half a million women die each year due to pregnancy and childbirth related causes (Carroli et al., 2001). Many women in developing countries do not receive such care (Ye et al., 2010). The reasons for high MMR in India are inadequate access and underutilization of health services. Other common reasons are high illiteracy among females, early marriages, ignorance, malnutrition, social factors etc. So utilization of these services by the beneficiaries remain unsatisfactory (Low et al., 2005; Okunlola et al., 2006; Trinh et al., 2006). The aim of this study was to review the literature on utilization of antenatal care services in developing countries.

Review of Literature

In a study in Nigeria (Iyaniwura, 2009), it was reported that almost all the women (97.2%) indicated that antenatal care is important for pregnant women; only 0.8% said it was not necessary while 1.8% were not sure. 87% were aware of antenatal care facilities in the community. The known facilities were government facilities 59.7%, private hospitals 16.3%, traditional/herbal homes (9.9%) and spiritual healing homes (3.1%). The reported sources of information about place of ANC were friends (30.1%), relations (27.0%), health worker (19.1%) and others (12.2%). (84.6%) received ANC during their last pregnancy. Most of the women who received ANC used a government facility (63.4%), 21.2% attended a private clinic.

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Almost one in every ten (9.7%) used traditional herbal home. During their last pregnancy, majority of those who received ANC first attended the clinic during the second trimester. Almost half (49.6%) attended at 3-4 months of gestation, 30% at 5-6 months, 8.2% at 7-6 months. Few booked at the extremes of gestation, 6.1% at 9 months and 5.6% at 1-2 months. Most women (46.4%) visited the clinic more than 4 times, 14.8% made three to four visits 3.6% made one to two visits while 30.6% could not remember the number of ANC attendances. Sixty eight percent (68%) received two doses of tetanus toxoid, 9% received one while 13% received none. Education and income affected pattern of use of ANC by the respondents. Uneducated women had fewer ANC attendances compared to the well educated women. Thirty nine percent (38.7%) of the women who had no formal education had four or less antenatal attendances compared to (18.1%) of the women with tertiary education. Only 1.5% of the women delivered at home. The preferred places of delivery were government facilities (54.8%), private hospital (24.5%) and traditional/herbal homes (13.5%). Few women delivered at spiritual healing homes (5.6%). Another cross-sectional study (Yang et al., 2010) was conducted from July 1-27, 2008 using two-stage cluster sampling at 24 selected villages in the Kham District. In this study, 53.9% of the respondents who had received no ANC service. Among the others, 93.4% mentioned that they had no time to visit the ANC, 83.8% reported that they felt they were in sufficiently good health, 74.3% said that they were embarrassed, while 71.3% reported that they lived too far away from an ANC service. Among women who visited an ANC, the highest number of respondents, 64.3% had visited less than four times during their previous pregnancies, whereas only 35.7% had visited four times or more. The majority of respondents, 58.7% started visiting ANC during their second

trimester followed by those in their first, 39.9% and third trimester, 1.4%. 42.9% said that they lived about 8 km or more from the nearest ANC service, while more than half, 55.2% complained that travel conditions made it inconvenient for them to visit the ANC. In contrast, 60.0% said that they had daily access to public transportation to the nearest ANC service. Surprisingly, 71.3% women said they did not have a long wait in their visit to the ANC service, while 28.7% complained that they were kept waiting for a long time. Concerning the cost of transportation, 49.7% said that it was expensive to visit the nearest ANC service, while 52.6% also complained about the cost of the ANC service. Among several such factors, education, income, knowledge, attitude, distance to the ANC service, availability of public transportation, the cost of transportation, as well as the cost of service were revealed to be positive and significant predictors of ANC service. Pregnant women who lived far from the ANC had the lowest rate of ANC visits. Another study (Adewoye et al., 2013), was carried out among women of reproductive age group (15-49) years in Ilorin East Local Area, using a descriptive cross-sectional study design. 76.8% attended antenatal care during the last pregnancy while 23.2% did not. Most of the respondents that attended care 86.5% did so at a public health facility, 8.7% attended antenatal care at the private health facility, 3.2% at traditional home while 1.6% at the church. Among the respondents that attended antenatal care during the last pregnancy 26.7% were advised by their mother, 23.8% were advised by their husband while 15.1% were advised by friends.

In a study in Nepal (Ramesh, 2013), around 68 percent mothers received ANC service from SBA (Doctor/Nurse/ANM) while 31 percent mothers received from trained professionals (HA/AHW/MCHW). Less than one percent visited pharmacist to receive ANC services. Around 72 percent mothers received ANC services from community level health centers (PHCC/SHP/Outreach Clinic). One out of five (21.7%) mothers visited private centers for ANC services. 79.4% mothers were found to have visited the ANC more than four times. Only 3 percent mothers had not visited any service centre for pregnancy check up. Seventy four percent mothers received 2 or more tetanus (TT) injections during their pregnancy. Only 6 percent mothers had not received TT injection. Fifty six percent mothers received iron tablets for more than 180 days while 9 percent did not receive iron tablets during their last pregnancy. Literacy status of mothers influence the ANC visit. Literate mothers had higher no. of ANC visits than illiterate mothers. Mothers from joint family had higher ANC visit than the mothers from Nuclear family. Mothers having first pregnancy had higher ANC visit than second or higher no. of pregnancy.

A cross-sectional hospital-based study (Haliimo Saed et al., 2016) was conducted among pregnant women attending antenatal care, outpatient clinics at Omdurman maternity hospital in Sudan. There is a direct relationship between parity and utilization of the ANC, with multiparous women making significantly fewer visits to ANC than nulliparous women. This could be due to the fact that nulliparous women identify themselves as being at high danger of developing pregnancy related complications. Majority of participants utilizes ANC services (86.5%) during their pregnancy because most of them are primigravida and in their first time.

Long distance to the health facility is highly associated with fewer Also, the cost of health care services, prescription drugs and transportation determine the affordability of health care visits. A study in Uganda (Edward Bbaale, 2011) reported that only 16% of women used the full content of antenatal care. Only 12% of women had a urine sample taken, 28% a blood sample taken, and 53% their blood pressure measured. Almost two-thirds of women (63%) took iron supplements, 77% had their weight measured, and 27% were given drugs for intestinal parasites. The utilisation of the content of care was significantly associated with education of the mother and her partner, wealth status, location disparities, timing and frequency of antenatal visits, nature of facility visited, access to media, family planning, and utilisation of professional care. There is a higher average percentage of women (49%) with postsecondary education who received the entire content compared to their counterparts with no education (12%). There is a high average percentage of women with postsecondary education who were weighed (92%), had blood pressure measured (87%), a urine sample taken (42%), a blood sample taken (64%), were given iron supplements (78%), were given intestinal drugs (47%), were given at least two tetanus injections (65%), and received professional care (96%). This is compared to quite lower average percentages of women with no education that were weighed (78%), had blood pressure measured (45%), had a urine sample taken (8%), had a blood sample taken (21%), were given iron supplements (61%), were given intestinal drugs (23%), were given at least two tetanus injections (49%), and received professional care (86%). There is a high average percentage of women in the urban area (31%) using the entire content of care compared to counterparts in the rural area (14%). There is a high average percentage of women who have access to media everyday (42%) who used the entire content of antenatal care compared to counterparts with no access at all (14%). The descriptive findings show that there is a high percentage of women (20%) who had an earlier pregnancy-related problem who used the entire content of care compared to counterparts who had no problems at all (16%). There is a high percentage of women (16%) who use professional antenatal care that use the entire content of care compared to their counterparts who do not use professional care (9%). There is a high percentage of women (21%) who practice family planning that use the entire content of care compared to their counterparts who do not (12%).

In a study in India (Rudramma et al., 2014), the antenatal registration was 100 percent, of which 56.5% of mothers registered in the first trimester. In this study, 14.3% of mothers had registered at subcentre, 12.7% at PHC, 21.3% at district hospital, 49.7% in private clinics or hospital and other 2% registered at Employee State Insurance (ESI)/Military hospital. Antenatal services were availed at private hospitals by 41.4% mothers, 20.1% mothers visited district hospital, 6.8% PHC, 3.4% subcentre and 1.2% visited health facilities like ESI or military hospital for antenatal services. Remaining 27.1% of mothers either visited more than one government health facility or both government and private hospitals. All the mothers were immunized with tetanus toxoid injection and three or more antenatal visits were made by 83.1% of mothers. In this study, consumption of 100 or more IFA tablets was observed in 65.6% of mothers. Weight, height and haemoglobin was measured in more than 95% of mothers. In this study, more number of housewife mothers had registered early, made three

or more antenatal visits and utilized full antenatal care compared to working women. This association was statistically significant. It was observed that as the parity increased, there was decline in early registration, number of antenatal visits and utilization of full antenatal care. This association was statistically significant.

In the a study of Jaipur (Kusum et al., 2014), out of total 450 mothers 421 i.e. 93.56% had utilized ANC services and only 65 i.e. 15.44% of mothers were given home visits. Likewise 448 i.e.99.56% were institutional deliveries.This study also observed that age, religion and socioeconomic status of mothers were not associated with ANC services utilization whereas mother's caste, type of families and family size were associated with ANC services utilization. It was also observed that mothers of SC category, nuclear families and family size upto 5 were having more chances for not utilizing ANC services than others in that category.It was also revealed that education and occupation of mothers were associated with utilization of ANC services. All the women, who had not utilized ANC services, were illiterates and doing Arri - Tari/embroidy work in their houses. It was observed that those mothers who were not utilizing ANC services had significantly ($P<0.05$) lower age at menarche. Like wise it was also observed that all the mothers who were not utilizing ANC services were those who have identified their pregnancies themselves. It was also revealed in this study that out of total 29 mothers who have not utilized ANC services, majority (19 i.e. 65.52%) of mothers quoted tradition as a cause for not utilizing ANC services whereas (11 i.e. 37.93%) of mothers were telling that they had no problem during this and last pregnancies. Regarding intra-natal care services utilization it was observed in the present study that out of total 448 mothers who had utilized ANC services, majority (>95%) of mothers had feeling of safety and timely treatment of any risk during delivery in hospital whereas 236 mothers had adopted hospital delivery because they can get vaccination (52.68%) of their child in times. This table also shows that few mothers (0.22 to 6.7%) said that Dai was not available, they already has LSCS delivery, they can get easy reference etc.

At the time of survey in a study in Gujarat (Vaibhavi, 2013), 83% of the antenatal women had registered for Antenatal care and had done at least one ANC visit and about two third of antenatal women had received Iron and Folic Acid (IFA) tablets, Tetanus Toxoid (TT) injection and undergone BP measurement. Out of 81 women who had taken IFA tablets 71(87.65%) were consuming it regularly while 10(12.35%) were consuming the tablets irregularly because of side effects. Out of those antenatal women who had registered for ANC about two third (68.37%) of Antenatal women had registered at government health facilities and about one third (31.63%) had registered at private hospital. Knowledge about the benefits under Chiranjeevi Yojana and JSY was very poor, only seven antenatal women had correct information. When planning the place of delivery, higher percentage of women had planned it in private hospital compared to government facilities. Six percent of women had planned home delivery. In general, women prefer to deliver at home for reasons such as support, familiarity, tradition, and belief that birth is considered a natural phenomenon for which an institutional delivery is not required.

A study in Bareilly (Singh, 2014) revealed that among the registered pregnant females, only 37.1% had at least ≥ 3 antenatal contact.Tetanus Toxoid immunization status revealed that 54.2% antenatal females were fully-immunized i.e., they had received 2 doses of TT/ booster dose, 14.7% were partially immunized and 31.1% were not immunized at rural health centre level. Full antenatal care consisting of three or more antenatal checkups, two doses of T.T/1 Booster dose and 100 or more IFA intake was reported for 24.7% of the registered pregnant females.

Conclusion

Awareness should be developed in the community about the importance of registration for ANC, educating women about detection of complications during pregnancy, importance of TT Inj.,IFA tablet ,extra nutrition etc.Misconceptions and fears regarding child birth should be reduced during prenatal care so that it may contribute to an increase in the utilization of delivery services. Communication with women about their expectations and perceptions of health facility deliveries, along with other issues, could improve community awareness of the importance of delivery services in regard to the health of their unborn children.

REFERENCES

- Adewoye, K.R., Musa, I.O., Atoyebi, O.A. et al. 2013. Knowledge and Utilization of Antenatal Care Services by Women of Child Bearing Age in Ilori -East Local Government Area,North Central Nigeria. *International Journal of Science and Technology*.Volume 3 No.3, March.
- Carroli, G., Rooney, C., Villar, J. 2001. How effective is antenatal care in preventing maternal mortality and serious morbidity?An overview of the evidence.Paediatric and Perinatal Epidemiology.15(supplement 1).1-42.
- Edward Bbaale. 2011. Factors influencing the utilisation of antenatal care content in Uganda. *Australasian Medical Journal*; 4, 9, pp:516-526.
- Haliimo Saed` Ali and Afaf AbdAlla Adam AbdAlla. Understand Factors Influencing Accessibility of Pregnant Women to Antenatal Care Services.*Health Science Journal*.2016 Vol.10; No.5:7.
- Iyaniwura, C.A. Yussuf. Q. 2009. Utilization of Antenatal care and Delivery services in Sagamu, South Western Nigeria.*African Journal of Reproductive Health* Vol 13 No 3 September.
- Kusum, L.G., Prerna, G., Rajveer, K. et al. 2014. Factors Associated with Antenatal Care Services Utilization and Institutional deliveries. *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*.Volume 13, Issue 4 Ver. IV. (Apr.) PP 96-100.
- Low, P., Paterson, J., Wouldes, T., Carter, S. et al. 2005. Factors affecting antenatal care attendance by mothers of Pacific infants living in New Zealand.*N.Z. Med J.*, 118:UI 489.
- Okunlola, M.A., Ayinde, O.A., Owonikoko, K.M. et al. 2006. Factors influencing gestational age at antenatal booking at the University College Hospital, Ibadan, *Nigeria.J Obstet Gynae*, 26:195-97.
- Ramesh, K.D. 2013. Utilization of Antenatal Care Services in Rural Area of Nepal. *International Journal of Collaborative*

- Research on Internal Medicine & Public Health. Vol. 5; No. 2.
- Rudramma, J., Appasaheb, W., M.D. Mallapur. Socio-Demographic Factors Influencing Utilization Of Antenatal Health Care Services In A Rural Area –A Cross Sectional Study. *International Journal of Medical Science and Public Health*, 2014;Vol 3;Issue 3.
- Singh, J.P. Peeyush K., Gupta, S.B. et al. 2014. Utilization of antenatal care services in a rural area of Bareilly. *International J. of Healthcare and Biomedical Research*, Volume: 2, Issue: 3, April, Pages 120-126 .
- Trinh, L.T., Rubin, G. 2006. Late entry to antenatal care in New South Wales, Australia. *Reprod Health*.3:8.
- Vaibhavi, D.P., Bhavna, T.P., Jay, K.S. 2013. Utilization of Antenatal Care Services In The Gandhinagar (Rural) District, Gujarat. *National Journal of Community Medicine*;Volume 4;Issue 1 | Jan – Mar.
- Yang, Y.E., Yoshitoku, Y., M.D. Harun-Or-Rashid et al. 2010. Factors affecting the utilization of antenatal care services among women in Kham district, XIENGGHOUANG PROVINCE, Lao Pdr. *Nagoya J. Med. Sci.* 72.pp: 23- 33.
- Ye, Y., Yoshida, Y., Harun-or-rashid, M., Sakamoto, J. 2010. Factors affecting the utilization of antenatal services among women in Kham district, Xiengkhouang province. *Lao Pdr Nagoya J Med Sc.*72:23-33,2010.
