



**Hybrid  
Conference**

**3<sup>rd</sup> Annual Students'  
Research Session**

**Faculty of Health - Care Sciences  
Eastern University, Sri Lanka**

*ASRS 2021*

**Today's Researcher -  
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*20<sup>th</sup> December 2021*

**BOOK OF EXTENDED  
ABSTRACTS**



## KNOWLEDGE OF ANTENATAL CARE PRACTICE AMONG PREGNANT MOTHERS ATTENDING ANTENATAL CLINICS AT PALAMEENMADU, SINNA URANI, SRI LANKA

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### Abstract

**Introduction:** Even though the quality of antenatal health care in Sri Lanka is noted to be better compared to other developing countries, it still needs improvement for sustainable development of the country. It is very important to improve regular clinic follow-up, knowledge about the antenatal care practice, and early detection and treatment of complications. This study aimed to determine the knowledge on the practice of antenatal care and the association of different socio-demographic factors amongst pregnant mothers living in selected villages of Batticaloa, Sri Lanka.

**Method:** This cross-sectional study involved pregnant mothers attending antenatal clinics in the selected villages. Data were collected using a self-administrated questionnaire on a designated day during antenatal follow-up. Sixty-four mothers consented and provided data. Data were analyzed using Statistical Package of Social Studies Version 25.

**Results:** Study revealed that the overall average knowledge about antenatal care practice was 76.3% with a stranded error of 3%. About 70.3% of respondents had adequate overall knowledge while 29.7% had inadequate knowledge about antenatal care practice. The finding ~~shows~~ showed that age, educational level and monthly income have a significant and large association with knowledge level ( $p < 0.05$ ).

**Conclusion:** Approximately, half of pregnant mothers had poor knowledge regarding the importance of screening for viral infections which is crucial for prevention of vertical transmission and adverse perinatal outcomes. Specific educational and interventional programs need to be planned and conducted in order to improve their knowledge regarding antenatal health practices

and eventually, they will be helpful to improve the health status of Sri Lankan women.

**Keywords:** Antenatal care, Pregnancy, screening for viral infections, Knowledge, Sri Lanka

**Introduction:** Sri Lanka is a country with a good health care system and that has been improved over time. In Sri Lanka, the government commenced an antenatal clinic at De-Soyza hospital, Colombo, in 1921. Antenatal care coverage in Sri Lanka is almost 99% provided by consultants in obstetrician and gynecologists and by the public health midwives under the medical officer of health (Goonewardene & Dias, 2013).

Antenatal care (ANC) is one of the primary health care mechanisms for pregnant women to have a safe and uncomplicated pregnancy. It is essential to give adequate knowledge on ANC to mothers. The positive impact can be achieved by several factors, including detecting pregnancy problems, providing information to the pregnant woman, and preparing physically and psychologically for childbirth and parenthood (Were et al., 2013).

Since the knowledge about antenatal care has shown dramatic impacts on outcomes, it is also important to assess the factors that affect antenatal care. This study is mainly based on assessing the knowledge of practice among pregnant women and analyzing the relationship between knowledge and different social demographic factors of the pregnant women living in the university community project area.

**Methods:** This cross-sectional study involved pregnant mothers attending two antenatal clinics in the villages of Palameenmadu, and Sinna Urani. Data were collected using a self-administrated and validated questionnaire on a designated day during antenatal follow-up. Sixty-four mothers consented and provided data. Data were analyzed using Statistical Package of Social Studies Version 25. Those who scored 70% and above were considered as having adequate knowledge (Patel et al., 2016). Ethical clearance was obtained from the Ethical Review Committee of FHCS, EUSL (E/2020/34).

**Results and Discussion:** A total of 64 pregnant women participated in this study. All of them were Tamils by ethnic group. Among the all-participants highest number (93.8%) belongs to the Hindu religion. About 53.1% of women had been educated up to grade 6-11 educational category, and

12.5% obtained tertiary education. Among the respondents 45.3% were within 20-29 age group, and about one fifth was over the age of 35 years (20.3%). The majority (76.6%) were unemployed. A greater number (42.2%) had a monthly family income of Rs. 10 000 - 15 000. The study revealed that the overall average knowledge about antenatal care practice was 76.3%, with a standard error of 3%. Moreover, it has been observed that 70.3% of respondents had adequate overall knowledge while 29.7% had inadequate knowledge about antenatal care practice. The association between demographic characters and knowledge level were tested using the likelihood ratio test. The findings showed that age ( $\chi^2_{(3)}=22.85$ ,  $p=0.000$ , Cramers'  $V =0.564$ ), educational level ( $\chi^2_{(3)}=11.33$ ,  $p=0.010$ , Cramers'  $V =0.376$ ), and monthly income ( $\chi^2_{(3)}=9.17$ ,  $p=0.027$ , Cramers'  $V =0.369$ ) all had a significant and large association with knowledge level, while there is no significant association between knowledge and other demographic characters such as religion, ethnicity, marital state, and occupation. The results also revealed that when age, educational level, and monthly income increases, adequacy on knowledge increase while inadequacy of knowledge decreases. Among sixteen statements of knowledge regarding the practice of antenatal care, four statements generally have shown inadequate knowledge. Those statements were regarding “number of clinics visits at least a pregnant woman should go during the pregnancy period”, “blood screening for Hepatitis B infection” and “blood screening for HIV infection”, and the “number of tetanus toxoids given to mothers during pregnancy period”.

The study showed a statistically significant association between age and knowledge about ANC ( $p=0.000$ ). A study was done by Patel et al. (2016) in Maharashtra, India also showed a significant association between age and knowledge. Moreover, educational level of the women also has shown significance ( $p=0.010$ ) with the level of knowledge. A previous study which was carried out in New Delhi, India (Agarwal & Garg, 2007) has shown there was a relationship between pregnant women's knowledge regarding ANC and educational level. The present also found that knowledge level significantly associated with the monthly income ( $p=0.027$ ), which was comparable with the study was done by (Patel et al., 2016), which found that knowledge significantly associated with the monthly income and socio-economical state of the family.

Another notable finding was that about half the participants had knowledge on the screening for viral infections such as hepatitis C and HIV. Studies reveal the high risk of vertical transmission of these viral infections (Benova

et al., 2014) and poor perinatal outcomes (Kushner & Terrault 2019). This indicates the need for enlightening women in crucial viral infections since they are sexually transmittable and the effect they cause on the fetus.

**Conclusion and recommendation:** This study makes certain revelations on the knowledge level pregnant women are required to have with regard to antenatal care. About 70% of pregnant women have adequate knowledge of most aspects of their care. Factors such as age, educational level, and income has positive correlation with pregnant women's knowledge level. Specific Education and interventional programs need to be planned and conducted in order to improve their maternal health practice and eventually improve the health status of Sri Lankan women.

## Reference

- Agarwal, P., & Garg, S. (2007). Maternal Health-Care Utilization Among Women in an Urban Slum in Delhi. *Indian Journal of community medicine, 78*, 203–205.
- Benova, L., Mohamoud, Y. A., Calvert, C., & Abu-Raddad, L. J. (2014). Vertical transmission of hepatitis C virus: Systematic review and meta-analysis. *Clinical Infectious Diseases, 59*(6), 765–773. <https://doi.org/10.1093/cid/ciu447>
- Cramér, H. (1946). *Mathematical methods of statistics* (1st ed.). Princeton: Princeton University Press.
- David, F. N., & Cramer, H. (1947). *Mathematical Methods of Statistics*. In *Biometrika* (Vol. 34, Issue 3/4, p. 374). <https://doi.org/10.2307/2332454>
- Goonewardene, M., & Dias, T. (2013). Antenatal care: paradigm changes over the years. *(The Ceylon Medical Journal, 2013), 58*(2), 47–50. <https://doi.org/10.4038/cmj.v58i2.5678>
- Kushner T, Terrault NA. (2019). Hepatitis C in Pregnancy: A Unique Opportunity to Improve the Hepatitis C Cascade of Care. *Hepatology Communications, 3* (1), p 20 - 28
- Patel, B., Gurmeet, P., Sinalkar, D., Pandya, K., Mahen, A., & Singh, N. (2016). A study on knowledge and practices of antenatal care among pregnant women attending antenatal clinic at a Tertiary Care Hospital of Pune, Maharashtra. *Medical Journal of Dr. D.Y. Patil University, 9*(3), 354. <https://doi.org/10.4103/0975-2870.182507>
- Were, F., Afrah, N. A., Chatio, S., Manda, L., Pell, C., Men, A., Hamel, M. J., Hodgson, A., Tagbor, H., Kalilani, L., Ouma, P., & Pool, R. (2013). *Factors Affecting Antenatal Care Attendance : Results from Qualitative Studies in Ghana, Kenya and Malawi. 8*(1). <https://doi.org/10.1371/journal.pone.0053747>