Satisfaction of Rural Pregnant Women as Quality Indicator of Provided Antenatal Care

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Abstract- Providing good quality health care is of critical importance for the future economic and social well-being of any country. Patient satisfaction is considered an important indicator of health care. High quality antenatal care is a fundamental right for women to safeguard their health, help women maintain normal pregnancies and reduce the rate of maternal morbidity and mortality. The rural areas are characterized by shortage in physical and human resources such as physicians, nurses, and specialists. Pregnant women's satisfaction is one of the indicators of measuring quality of antenatal care. **Aim of the study:** is to assess the satisfaction of rural pregnant women with provided antenatal care. **Methodology:** An interview sheet to assess the pregnant women satisfaction was used containing five parts. A sample of (420) pregnant women who attended at least two visits for antenatal care were selected randomly from fourteen (14) rural health units at Tanta city. **Results:** Majority (94.3 % and 85 %) of the pregnant women were satisfied with the way nurses treated them and cleanliness of follow up room respectively. More than three quarters (76.4 %) of them were satisfied with working time in the unit and 72.1 % of them were satisfied with laboratory investigations. While 35.7%, 31.4%, 30.7%, and 26.4% of them were ***not satisfied*** with equipments and apparatus especially ultrasound, Waiting area, follow up services, and health services during pregnancy respectively. **Conclusion**: More than one half of the pregnant women had moderate satisfaction score with antenatal care services provided at rural health units. The majority of them did not attend health education session. **Recommendations**: Ministry of Health and Population should pay more attention to the rural health units in order to promote the antenatal care services through providing the necessary resources. Applying of health education sessions for all pregnant women is intensively recommended.

Index Terms- antenatal care, pregnant women, rural women, satisfaction.

I. INTRODUCTION

Assuring and promoting quality in health care services continues to be a priority for any health care system. The World Health Organization has emphasized the importance of quality in the delivery of health care, defined by the criteria of effectiveness, cost and social acceptability. Providing good quality health care is of critical importance for the future economic and social well-being of any country. An increase in the quality of health care can result in increased patient satisfaction. This will in turn promote the appropriate use of the health services. [1, 2]

Many researchers are seeking evidence that outcomes of nursing care are of good quality and represent a cost-effective use of resources. It is important to assess certain dimensions of quality in relation to structure, process, and outcome. Health outcomes can be grouped into four categories: health status, health-related knowledge, health-related behavior, and satisfaction with the care. Satisfaction with care describes how satisfied consumers are with their overall experience with care provided by the agency or plan. [3-5] Patient satisfaction is considered an important indicator of the efficient utilization of health services, as it assesses an individual's attitude to health services received and the extent to which these services meet the person's requirements and needs. [6, 7]

In recent decades, determining the level of patient satisfaction has been found to be the most useful tool for getting patients' views on how to provide care. This is based on two major principles: patients are the best source of information on quality and quantity of medical services provided and patients' views are determining factors in planning and evaluating satisfaction. [8, 9]

In developing countries, assessing and improving the quality of health care was a low priority, both for policy makers and for technical agencies. The World Health Organization reported that health care is still characterized by the following defects: uneven coverage and quality of services; inaccessibility of services, particularly for the under-privileged and rural communities in many countries in the Eastern Mediterranean Region. In general, the care was more likely to have been performed for urban than for rural births, with particularly low levels found for births in rural Upper Egypt. [10-12]

In Egypt, differences exist in the quality of care given by different health units, e.g. rural versus urban settings. According to Egypt's National Human Development Report (2005), the concentrations of poor populations are mainly in rural areas. Because of the poor performance of rural areas, a good health policy should provide the poor with some form of health security, particularly to protect them from paying for catastrophic medical episodes. [13, 14] Generally, in rural areas, there are shortage in physicians and nurses, as well as family practice physicians, nurse practitioners, and specialists, especially obstetricians, pediatricians, psychiatrists, and social service professionals.[15]

It was reported according to Egypt Demographic and Health Survey (EDHS) 2008, that 26.4 % of the pregnant women had no antenatal care, and the rural health units were the source of antenatal care for 7.4 % of those pregnant women who received it. Rural health units were also the source for tetanus toxoid (TT) injection for 38.9 % of the pregnant women who had received TT from public sector. [12] It is generally recognized that the

antenatal care services currently provided in many parts of the world fail to meet the standards recommended by WHO and results reflect the poor antenatal and delivery care services**.** [16]

High quality antenatal care is a fundamental right for women and one of the important factors to safeguard their health, help women maintain normal pregnancies and reduce the rate of maternal morbidity and mortality. It was reported that lack and poor quality of antenatal care contribute to maternal deaths. The way in which maternity care is provided is influenced by policies, availability and quality of services, and most importantly, the health-care-seeking behaviours of the women. [17-21]

One of the indicators of measuring quality of antenatal care is **pregnant women's satisfaction** which includes: percent of clients satisfied with the services received, perception of clients satisfied with the waiting time, percent of clients who felt that privacy was adequate for counseling/clinical examination. [22] Their satisfaction with provided care should be assessed to provide clear image about the quality of provided care. So, more attention is needed for the pregnant women during antenatal care period especially in the rural health units.

Aim of the study: is to assess the satisfaction of rural pregnant women with provided antenatal care.

Research question: What is the level of rural pregnant women satisfaction regarding provided antenatal care?

Study Design: Cross sectional descriptive study.

II. MATERIALS AND METHOD

Materials:

Setting of the study:

This study was conducted in fourteen (14) rural health units affiliated to the Ministry of Health (MOH) at Tanta city. The mentioned rural health units were selected randomly from total number of (28) units in Tanta city.

Subjects:

A random sample of (420) pregnant women who attended the previous health units were included in the study. Equal percent from each unit was selected from the pregnant women (thirty women from each unit). The criteria of inclusion were those pregnant women who attended at least two visits for antenatal care.

Tool of the study:-

Interview sheet for pregnant women satisfaction was developed by the researcher to assess the pregnant women's satisfaction regarding the nursing care provided to them in the rural health units. It included five parts as follows:

Part 1: *Socio demographic characteristics* of the pregnant woman such as: woman's age, education, occupation, and number of family members.

Part 2: *Present history:* as duration of pregnancy by weeks, number of visits, number of received doses of tetanus immunization, and if the woman follows up her pregnancy at a private doctor?

Part 3: *Services provided to the woman during present pregnancy*: as measuring blood pressure, weighing, blood analysis for hemoglobin level, urine analysis for sugar and albumin, giving iron tablets from the unit, visiting the woman's home by a nurse, waiting time spent, and if the pregnant woman received counseling from the doctor at each visit.

Part 4: *Pregnant women's* ***satisfaction*** *regarding* ***services*** *provided during pregnancy at the rural health unit:* as satisfaction with: the health services, nurses and doctors communication (dealing), keeping the woman's privacy, waiting and examination area, cleaning of clinics and bathrooms, infection control measures, analysis and sample taking, equipments and apparatus used as ultrasound, working times in the unit, and follow up services.

Part 5: *Pregnant women's satisfaction regarding* ***health education*** provided: as attending health education sessions, receiving health education individually from a nurse, the subjects of the education received, and the satisfaction regarding this education. The women were also asked about their suggestions for improving the services provided to the pregnant women at the rural health unit.

Method

Administrative and Ethical consideration:

-Prior to data collection the necessary approval was secured from Undersecretary of Ministry of health and the managers of the selected rural health units to facilitate the process of data collection.

-The tool was tested for content validity by five experts in the field of community health nursing and public health. It was 85.7 %.

-Test-retest method was used to test the reliability of the tool.

-The days of the tetanus immunization sessions in each health unit was selected to collect the data to assure the availability of the pregnant women.

-Interview with each pregnant woman was conducted individually in a suitable place in each unit to fill the sheet.

-The objective of the study was explained to the pregnant women. The anonymity and confidentiality of responses, voluntary participation and right to refuse to participate in the study was a right to all participants.

-The data was collected over a period of (8) months from December 2013 to July 2014.

Pilot study:

-A pilot study was conducted on 10% of the pregnant women to test the tool for its clarity, organization and to detect the time needed for each interview. Accordingly modification was done. They were excluded from the original sample.

-The time required to complete the questionnaire was about (20 - 25) minutes.

Statistical analysis:

- The data collected were coded and tabulated using the statistical package for social science (SPSS version 20) and used for data entry and analysis.

Scoring system:

1- The pregnant women answers' regarding their satisfaction with antenatal care services was scored as: (1) for **yes**, (2) for **no**, and (3) for **do not know**.

2- The **score** of pregnant women satisfaction with antenatal care services was classified as the following:

Low score **< 50 %**
Moderate score **50 % - 75%**
High score **> 75 %**

III. RESULTS

Table (1) demonstrates the distribution of the pregnant women according to their socio- demographic characteristics.

The table shows that the age of the majority (83.6 %) of women ranged from 20 years to less than 35 years old with the mean age 23.96 ± 3.98 years. (60 %) of them had secondary education. The majority (90.7 %) of women not working. The majority (87.1 %) of them had the number of family members from 1 to 3 members with the mean number 2.55 ± 0.812 member.

Table (1): distribution of the pregnant women according to their socio- demographic characteristics

Items	**No (n = 420)**	**%**
Age by years: < 20 20 - ≥ 35	 45 351 24	 10.7 83.6 5.7
Mean ± SD = 23.96 ± 3.98		
Educational level: - Illiterate or read and write - Basic - Secondary - University or higher	 39 51 252 78	 9.3 12.1 60.0 18.6
Job: - Work - Do not work	 39 381	 9.3 90.7
Number of family members: 1 to 3 4 to 6 members	 366 54	 87.1 12.9
Mean ± SD = 2.55 ± .812		

Table (2) shows the distribution of the pregnant women according to their present history.

The table shows that the duration of the present pregnancy for more than one half (52.9 %) of the women ranged from 28 weeks to less than 38 weeks and it ranged from 20 weeks to less than 28 weeks for 40.7 % of the women. About 62.9 % of the women visited the rural health unit twice during this pregnancy and 21.4% of them visited it three times. Majority (89.3 %) of them received tetanus toxoid during this pregnancy from the unit. The majority (87.1 %) of the pregnant women was following up her pregnancy on private doctor.

Table (2): distribution of the pregnant women according to their present history

Items:	**No (n = 420)**	**%**
Duration of the present pregnancy by weeks: < 20 20 - 28 - < 38	 27 171 222	 6.4 40.7 52.9

Number of visits: 2 3 4 5 & more	 264 90 39 27	 62.9 21.4 9.3 6.4
Receiving tetanus toxoid during this pregnancy from the unit: Yes No	 375 45	 89.3 10.7
If the woman follow up her pregnancy on private doctor:	366	87.1

Table (3) demonstrates the distribution of the pregnant women according to services provided to them during each visit in the present pregnancy.

This table shows that measuring blood pressure and weighing were the most frequently reported services by the women done for the majority (78.6 % and 87.9 % respectively). Blood analysis for hemoglobin level was done for slightly less than two thirds of women. Only 14.3 % of them were tested for urine analysis for sugar and albumin, and 6.4 % of them received iron tablet from the unit. Only one fifth of them received care or counseling from a doctor. The duration of waiting time before antenatal care for 60.7% of the women was short period.

Table (3): distribution of the pregnant women according to services provided to them during each visit in the present pregnancy

Services Provided / each visit:	**No (n = 420)**	**%**
Measuring **blood pressure**	330	78.6
weighing	369	87.9
Blood analysis for **hemoglobin level**	273	65.0
Urine analysis for **sugar and albumin**	60	14.3
Receiving care or **counseling** from a **doctor**	84	20.0
Home **visit** by the nurse	42	10.0
Given **iron tablet** from the unit	27	6.4
Duration of waiting time before antenatal care Short period Moderate period Long period	 255 135 30	 60.7 32.1 7.1

Table (4) presents the distribution of the pregnant women according to their satisfaction with antenatal care services provided at the rural health units.

The table shows that more than two thirds (68.6 %) of the women were satisfied with the health services provided during pregnancy in the unit. Majority (94.3 % and 85 %) of them were satisfied with the way **nurses** treated them and cleanliness of follow up room respectively.

More than three fifths (62.1 %) of the women were satisfied with Waiting area in relation to its cleanliness, ventilation, adequate light, and availability of seats. Less than one third (32.9%) were satisfied with the cleanliness of bath rooms. Only 14.3% were satisfied with the equipments and apparatus especially ultrasound. More than three quarters (76.4 %) of them were satisfied with working time in the unit.

Table (4): distribution of the pregnant women according to their satisfaction with antenatal care services provided at the rural health units (no = 420)

Satisfaction with:	Yes		No		Do not Know	
	No	%	No	%	No	%
1- Health services during pregnancy	288	68.6	111	26.4	21	5.0
2- The way Nurses treated them	396	94.3	21	5.0	3	0.7
3- The way doctors dealing with them	174	41.4	21	5.0	225	53.6
4- Confidentiality	183	43.6	12	2.9	225	53.6
5- Waiting area	261	62.1	132	31.4	27	6.4
6- Cleanliness of examination room	144	34.3	24	5.7	252	60.0
7- Cleanliness of follow up room	357	85.0	45	10.7	18	4.3
8- Cleanliness of bath rooms	138	32.9	30	7.1	252	60.0
9- Infection control measures	258	61.4	57	13.6	105	25.0
10- Laboratory investigations	303	72.1	36	8.6	81	19.3
11- Equipments and apparatus especially ultrasound	60	14.3	150	35.7	210	50.0
12- Working time in the unit	321	76.4	51	12.1	48	11.4
13- Follow up services	291	69.3	129	30.7	0	0.0

Table (5) represents the distribution of the pregnant women according to their satisfaction with health education provided during antenatal care at the rural health units.

The table shows that the majority (95 %) of the women did not attend any health education session. While about one half (52.1 %) of them received health education from the nurse individually. More than three quarters (75.3 %) of those who received health education from the nurse individually, received information related to nutrition, 32.9 % of them received information related to pregnancy follow up, 30.1 % and 24.7 % of them received information related to immunization, rest and sleep respectively.

Table (5): distribution of the pregnant women according to their satisfaction with health education provided during antenatal care at the rural health units

Items	No	%
Attendance of health education session:	(no=420)	
Yes	21	5.0
No	399	95.0
Receiving health education from the nurse individually :		
Yes	219	52.1
No	201	47.9
If yes what is the subject? *	(n= 219)	
- Nutrition	165	75.3
- Immunization	66	30.1
- Rest and sleep	54	24.7
- Pregnancy follow up	72	32.9
- Drugs & Smoking	12	5.5
- Danger signs	24	11.0
Satisfaction with health education knowledge & method:	(n= 219)	
Yes	192	87.7
No	27	12.3

*** More than one answer was allowed**

Table (6) demonstrates the distribution of the pregnant women according to their satisfaction score with antenatal care services provided at the rural health units.

It shows that more than one half (53.6 %) of the pregnant women had moderate satisfaction score, while 36.4% of them had high score. Only 10% of them had low score.

Table (6): distribution of the pregnant women according to their score of satisfaction with antenatal care services provided at the rural health units

Total score:	**No** (no = 420)	**%**
Low **< 50 %**	42	10.0
Moderate **50 % - 75%**	225	53.6
High **> 75 %**	153	36.4

Table (7) demonstrates the distribution of the pregnant women according to their suggestions for improving the antenatal care services at the rural health units.

The table shows that 41.4 % of the pregnant women suggested availability of ultrasound for improving the antenatal care services. 30 % of them suggested availability of enough obstetricians. More than one quarter (26.4 %) of them suggested more care and attention of the pregnant woman should be provided for improving the antenatal care. 15.7 % of them suggested availability of supplies and equipments**.** Only 10 % and 9.3 % of the women suggested providing health education for the pregnant women and availability of drugs and tonics for improving the antenatal care services.

Table (7): distribution of the pregnant women according to their suggestions for improving the antenatal care services at the rural health units (n = 420)

Items	**No**	**%**
Suggestions for improving the antenatal care: *		
1- Availability of ultrasound	174	41.4
2- Availability of enough obstetrician	126	30.0
3- More care and attention of the pregnant woman	111	26.4
4- Availability of supplies and equipments	66	15.7
5- Providing health education for the pregnant women	42	10.0
6- Availability of drugs and tonics	39	9.3
7- Availability of delivery services	27	6.4

*** More than one answer was allowed**

IV. DISCUSSION

High quality care is a fundamental right for every pregnant woman to safeguard their health and to help women to maintain normal pregnancies and reduce the rate of maternal morbidity and mortality. [17, 18, 22]

According to MOH, one of the main principles of primary health care strategies 2009-2014 (Health for All) is services recipients' satisfaction. Undoubtedly, patients perspectives mirror the quality of the care received and provided. Any care offered should be acceptable for the recipients. [23]

The present study revealed that the **age** of the majority of the pregnant women ranged from 20 years to less than 35 years old. Hoque et. al., (2008), who made an audit of antenatal care in a rural district of KZN, South Africa reported that the age of 66% of the pregnant women ranged from 20 to 34 years old. [24] The mean **age** of the pregnant women in this study was 23.96 $\pm$ 3.98 years, while it was 29.08 $\pm$ 3.95 years in another study in Sindh, Pakistan (2007). [25] This may be related to the early marriage and occurrence of pregnancy in young age in the rural areas where this study was conducted.

As regard pregnant women's **education**, it was found in this study that more than half of them had secondary education and less than one fifth of them had university education. This high number of educated women reflects the increase in the awareness of the rural population about woman's rights as female education. In Sindh, Pakistan (2007), 43.5% of women were illiterates, 47.2% had primary education and 9.3% had secondary education and the majority of the pregnant women were housewives. [25] This is in accordance with the results of this study. Hoque et. al.,

(2008), also reported in their study in rural district of KZN, South Africa that the majority of the pregnant mothers were unemployed. [24] Rajaeefard et. al., (2007), who studied preterm delivery risk factors in Shiraz, Islamic Republic of Iran, reported also that the majority of pregnant women either with low or high risk were housewives. [26] The highly educated women may have knowledge about antenatal care which enable them seeking care at the proper time and to be oriented about the high risk factors and actions to be taken when necessary. Housewives may have the time and the opportunity to care for themselves and to reduce the work factors that may endanger their pregnancy.

As regard to the **number of antenatal visits** to the health unit, less than two thirds of the studied women in the current study visited the rural health unit twice during this pregnancy. This could be an indicator of perceived low importance from the pregnant women point of view to antenatal follow up at the health units. It was noticed that majority of them followed up their pregnancy at private doctors. This may be also due to that the pregnant women attended the unit mainly for receiving tetanus toxoid immunization.

Meanwhile, the number of antenatal care visits according to 2008 EDHS was 4 visits or more for 66 % of the studied women. [12] According to El-Kak et. al., (2004), who studied patterns of antenatal care in low- versus high-risk pregnancies in lebanon, that most of the studied women had 9 antenatal care visits with an obstetrician, starting in the first trimester. [27]

The majority of the pregnant women in the present study received tetanus toxoid either one or two doses during this pregnancy from the unit. Only 10.7 % of the pregnant women did not receive tetanus toxoid during this pregnancy. This shows a decline to the results of 2008 EDHS which revealed that 18.8% of the studied women did not receive tetanus toxoid. [12] WHO (2009), reported that 48 % of the pregnant women in Egypt were immunized with two or more doses of tetanus toxoid. [28] Hasnain et. al., (2007), also found in their study about causes of low tetanus toxoid vaccination coverage in pregnant women in Lahore district, Pakistan that 87% of the studied women received 2 doses of TT. [29]

In this study, the majority of the pregnant women follow up their pregnancy on private doctor. According to 2008 EDHS, private sector was the source of antenatal care for 54.5% of the studied women. [12] This may be related to increase trust in private sectors and lack of trust in governmental institutions because of its lack of care, unavailability of resources, and insufficient obstetricians and trained personnel.

Indicators measuring quality of antenatal care include: percent of clients who had their blood pressure checked, and percent of clients received iron/folic acid supplements/tetanus injection. [22] A study in Pakistan (2007), studied pattern of antenatal care provided at public sector hospital Hyderabad Sindh, revealed that routine antenatal investigations were provided to the majority of women like urine, blood, and blood pressure.[25]

In the present study, measuring blood pressure and weighing were the most frequently reported services by the women. Meanwhile blood analysis for hemoglobin level was done for slightly less than two thirds of the women. Only small percentages of them were tested for urine analysis for sugar and albumin, and less frequently was receiving iron tablet from the units. These findings highlight the need for more effective and greater use of available laboratory resources and guidelines related to antenatal care. This is similar to the results of a study in Sindh, Pakistan (2007), which revealed that 63% of women were found dissatisfied with the services available. [25]

The **waiting time** is also used as an indicator of the quality of services. A study in Sindh, Pakistan (2007), showed that about 86.2% of women said that they have to wait for more than two hours for checkups. [25] While in this study, the duration of waiting time before antenatal care for most of the women was perceived as either short period or moderate.

However, the present study revealed that more than two thirds of the women were satisfied with the antenatal health services provided by the health units. And nearly one half of the pregnant women had moderate **satisfaction** score with antenatal care services. This could be explained by that those pregnant women may not be aware of the quality of care they should receive. They usually go to the unit for receiving immunization, and when their need is met they become satisfied with the services. This could also be due to they know that the health units which are affiliated to the Ministry of Health are lacking of resources and no more services could be expected from them.

The results of Hildingsson et. al., (2005), related to Swedish women's satisfaction with medical and emotional aspects of antenatal care in Sweden, showed that the majority of participants were satisfied with their antenatal care. [7] The results of Abd Elgwad M E, (2009), showed that pregnant women were satisfied with antenatal nursing care during pregnancy in MCH centers. [30] While in Sindh, Pakistan (2007), about one half of the women were dissatisfied with the services available. [25]

One of the indicators measuring quality of antenatal care is provider's interpersonal skills as the percent of clients treated with respect. World Health Organization, Geneva (2006), reported that communication is one of the principles of good care. [31] This study showed that the majority of the pregnant women were satisfied with the way nurses treated them. Nanbakhsh et. al., (2008), who assessed the women's satisfaction with reproductive health services in Urmia University of Medical Sciences, stated that 34.0% of women were unsatisfied or completely unsatisfied with their health care provider. [8]

The majority of the women in this study were satisfied with cleanliness of follow up room. It showed also that nearly one third of the women were satisfied with examination room and more than three fifths of them were satisfied with waiting area. The results of Abd Elgwad M E, (2009), in Elgharbeia, revealed that half of the pregnant women satisfied with physical setting environment in the studied MCH centers. [30] Gadallah et. al., (2003), who assessed patient satisfaction with primary health care services in two districts in Lower and Upper Egypt, reported that patient satisfaction was high for waiting area conditions and performance of doctors and nurses. Their results revealed also that level of privacy in the consultation room was described as` unsatisfactory by 33% of patients. [32]

Gadallah et. al., (2003), reported that the main patients' complaints centered on the unavailability of prescribed drugs and laboratory investigations. [32] While in the present study, nearly three quarters of them were satisfied with laboratory investigations. The least services that pregnant women were unsatisfied with, were the unavailability of equipments especially

ultrasound. So, the first suggestion of the pregnant women for improving the antenatal care of this study was availability of ultrasound. Baldo (2001), stated that ultrasound scanning attracts women to early antenatal care in addition to its other benefits, such as reducing the number of induced births. [33]

One of the indicators measuring quality of antenatal care is information given to the client. [21] Related to receiving **health education** during pregnancy, this study revealed that the majority of the women did not attend any health education session, as health education classes were not provided by nurses at the units. While about one half of them received health education from the nurse individually. The results of the Sindh, Pakistan (2007), study revealed that only 31% of women received instructions about perinatal care. [25] These results show that nurses working in rural health units were either neglicant or lacking the educational skills. So, one of the women's suggestions for improving antenatal care in this study, is providing health education for the pregnant women. Nanbakhsh et. al., (2008), in Urmia University of Medical Sciences stated that factors that needed to be improved were: using educational materials e.g. pamphlets and brochures at reproductive health consultations; and improving information given to the clients. [8]

The present study resulted in more than one quarter of the pregnant women suggested more care and attention of the pregnant woman should be provided for improving the antenatal care. This is similar to the results of Hildingsson et. al., (2005), in Sweden who revealed that strongest predictors of dissatisfaction were women's opinions that midwives had not been supportive and had not paid attention to their clients' needs. [7]

V. CONCLUSION

More than one half of the pregnant women had moderate satisfaction score with antenatal care services provided at rural health units. The majority of them did not attend health education session; while, nearly one half of them received health education individually from the nurse. Women provided some suggestions for improving antenatal care services in the rural health units as: availability of ultrasound, availability of enough obstetricians, more care and attention of the pregnant woman, availability of supplies and equipments, and providing health education for the pregnant women.

VI. RECOMMENDATIONS

Based on the results of this study, the following recommendations are suggested:

1- Ministry of Health and Population should pay more attention to the rural health units in order to make the needed resources for antenatal care available.
2- Health education sessions for all pregnant women should be applied and encouraged from the stakeholders.
3- Assertive and continuous supervision of the nurses' performance must be applied at all rural health units especially in antenatal care clinics.
4- More female obstetricians are needed at the rural health units, so, MOHP should pay more incentives for those doctors to encourage them to provide care for rural women.

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