Women's Satisfaction with the Quality of Antenatal Care at the Primary Health Care Centers in Al-Madinah Al-Menawarh, KSA

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Abstract: Background: Antenatal care dramatically reduces infant and maternal morbidity and mortality. Early detection of potential problems leads to prompt assessment and treatment which greatly improves the pregnancy outcome. However, the quality of antenatal care and the availability of essential obstetric care are important for antenatal care to be effective. It is also being increasingly recognized that client's satisfaction should be taken into account as part of the assessment of quality of care. **Aim:** The aim of this study was to assess women's satisfaction with the quality of antenatal care at the primary health care centers in Al-Madinah Al-Menawarh, KSA. **Methodology:** Research design used for the study was a descriptive design. A simple random selection of six primary health centers which affiliated to the Ministry of health was done. The study subjects were 150 pregnant women attending the previously mentioned primary health care centers. An interviewing assessment sheet was designed by the researchers to collect the data. **Results:** More than two thirds of the clients (68.0%) and slightly less than two thirds of the them (62.0%) respectively were very satisfied with provider-client interaction and quality of antenatal care services. In addition, It can be observed that the older, low educated, housewives women and those who had small number of children were more satisfied with health care providers ' interaction and the quality of antenatal care services provided to them. However, the difference observed was statistically significant**. Conclusion:** It can be concluded from the results of the present study that although the overall satisfaction with the quality of antenatal care was high, some aspects of provided antenatal care were inadequate. Health care providers should work towards improving their technical competence**.**

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1. Introduction

Antenatal Care (ANC) means "care before birth" and includes education, counseling, screening, treatment, monitoring and promoting the well-being of the mother and fetus[(1)]. The death of a mother during pregnancy or delivery is a tragedy that affects not only families but society as a whole[(2)]. The risk of dying during pregnancy or delivery is 175 times higher for African women than it is for women in developed countries[(3)]. At the global level, 13 underdeveloped countries account for 70 per cent of maternal deaths[(4)].

In spite of international efforts to improve maternal health in the developing countries, the present quality of maternal care as depicted by the magnitude of sever maternal mortality and morbidity in this region makes the realization of the Millennium Development Goal for maternal health uncertain [(5,6)]. However, while poor access to basic antenatal care is recognized as a major obstacle toward improvement of pregnancy outcomes, there is a growing consensus that access to antenatal care alone is insufficient to alter the present maternal health profile and that the quality of antenatal care services may be a key determinant of maternal and perinatal outcomes [(7,8)].

Quality of health care can be accessed from two perspectives, quality of health care and clients satisfaction with the manner in which the service is delivered [(9)]. Some empirical evidence suggests that patient's quality of judgment may be positively associated with technical quality. So, any successful health care program should achieve client satisfaction[(10)]. Satisfaction can be defined as the extent of a client's experience compared with her expectations. Evaluation of client satisfaction with antenatal care services is clinically relevant, as satisfied women are more likely to comply with treatment, take an active role in their own care, continue using the services and stay with the health provider [(11)].

Significance of the study:

Maternal mortality ratio in Saudi Arabia in 2009 was 15 deaths/100.000 live births. Maternal mortality

associated with preventable patterns are late detection of complications associated with pregnancy , late arrival to a medical centre and delayed quality care provided to pregnant women [4].

In spite of increasing importance of quality of antenatal care worldwide, accurate information about the quality or efficiency of antenatal care practices and clients satisfaction with such care are less often available or investigated in many countries where they are most needed [3,12]. For instance in Saudi Arabia, where reducing maternal mortality rate is one of the main goal of MOH (Ministry Of Health) and the central role of primary care centers, little is known about the satisfaction of women with the quality of care provided by primary health care centers [13,14,15].

Aim of the study:

The aim of this study was to assess women's satisfaction with the quality of antenatal care at the primary health care centers in Al-Madinah Al-Menawarh, KSA.

2. Subjects and Methods:

Design, setting and subjects:

Research design used for the study was a descriptive design. A simple random selection of six primary health centers which affiliated to the Ministry of health was done. These centers were Alsalam, Elegaba, Alnasr, Albiaa, Alaws, and Alkandk. The study subjects were 150 pregnant women attending the previously mentioned primary health care centers. The sample will be divided as follow: 25 pregnant women was selected randomly from each center.

Tools of data collection:

Tools used for data collection consisted of: An Interviewing Assessment Sheet: A structured interview data collection form was designed by the researchers which was derived from the policy series in reproductive health that produced by the reproductive health working group housed in the Population Council [16].

The interview form consisted of three parts:

Part I: was concerned with socio demographic data and obstetrical history such as age, level of education, occupation, number of children, and client's amenities in the primary health centre…etc.

Part II: was concerned with provider- client relationship. It consisted of closed ended questions related to causes of visits, women's greeting by health care providers during the visits and their communication with women.

Part III: was concerned with health care services provided to the pregnant women during the visit (history taking, examinations and investigations) for example: if a health care provider asked the woman about her obstetrical, medical history, her previous delivery, performing general and local examination to the women, making investigations to the women and giving her the required vaccination and vitamins.

Administrative design:

Collection of data were done after obtaining the formal permission from the ethical committee of the directors of primary health care centers at Al-Madina Al-Menawarh. An official letter clarifying the purpose of the study and accepting the process of data collection was directed from the head of committee to the manger of each selected center.

Pilot Study:

The study tool was pre-tested on a random sample of 20 pregnant women who were excluded from the study sample and obtained from 2 centers to assess the reliability and applicability of the tool.

Procedure:

The researchers attended one of the selected primary health care centers two days per week, from 8.00 am. to 12.00 pm. The researchers introduced themselves to the selected women and briefly explained the nature of the study. Then women's consent was obtained. The field work lasted for three months. It started from April 2012 to June 2012. All women were interviewed to collect data and each interview was taken from 30-45 minutes with each woman with a weekly interview of about 12-14 women.

Ethical consideration:

Obtaining the acceptance of women to participate in the study. All women were informed that their participation is voluntary and that the collected data would be only used for the purpose of the study, as well as for their benefit.

Statistical analysis:

Data were analyzed using SPSS windows statistical package version 16. Descriptive statistics was used to calculate percentages and frequencies. t test was used to estimate the statistical significant differences. A significant P-value was considered when P-value is less than 0.05 and it will be considered highly significant when P- value is less than or equal 0.01. The scoring system for satisfaction was classified according to the following categories:<25% are very dissatisfied, from 25-50%

are dissatisfied, from 50-75% are satisfied and from 75-100% are very satisfied

3. Results

Socio-demographic characteristics of the women

As shown in **table (1)** about one half of the women (48.0%) were in the range of age 25-35 years. Less than one fifth of the women (14.7%) were illiterate or able to read &write. Nearly one half of the women (47.3%) had completed primary, intermediate and secondary education. The rest were university and postgraduate holders. It can be observed that 48.7% of their husbands had completed primary, intermediate and secondary education. More than three quarters of the women (84.7%) were housewives. In addition, more than one half of the women (54.0%) had 3 children or less. More than one third of women (38.7%) had the first visit to antenatal clinic during the third trimester.

Assessment of amenities at PHCs

Table (2) represents women's assessment of amenities at PHCs, most of the women (85.3%) lived near from the centre. Slightly more than one half of them (52.7%) waited for long time before entering to the health care provider. The majority of women (98.7%) mentioned availability of chairs in the waiting area. In addition, 92.7% of women stated the availability of toilets in the centre.

Provider –client interaction:

Table (3) reveals the interaction between the health care provider and the clients, it can be observed that 96.0% of clients were greeted by the health care providers, 60.7% of them did not know their health care providers because they did not introduce themselves to the clients. Majority of clients (97.3%, 92.0%) respectively were asked about the visit cause and the present health problems. Most of client's complaints (88.0%) were listened carefully by the health care provider.

Women's satisfaction with health care provider interaction:

As shown in **figure (1)** more than two thirds of the clients (68.0%) were very satisfied with provider client interaction followed by 22.0% were satisfied and 8.0% were dissatisfied while the rest of clients were very dissatisfied.

Antenatal care services provided to the women:

Table (4) summarizes the various antenatal care services provided to the women during antenatal visit. Majority of clients (98.0%, 98.0%, 99.3%, 97.3%, 95.3%) respectively were asked about their age, date of last menstruation, number of pregnancies, number of living children and number of abortions. Moreover, about three quarters of women (74.6%, 76.0%, and 74.0%) respectively were asked about place of previous delivery, type of delivery and consanguinity with their husband. The same table illustrates the different examinations expected to be provided by doctors to the clients during antenatal visit. Most of the clients (92.0%, 95.3% and 96.0%) respectively reported that their body length, weight and blood pressure were measured. Moreover, a minority of women (11.3%, 14.6%, 9.3% and14.0%) respectively reported that their eyes, teeth, lips and gum were examined. However, less than one half of women (43.3%) mentioned that doctors didn't examine their lower limps for varicose veins or edema. More than three quarters of women (80.7%) mentioned that their abdomen were examined for palpating fetal parts and position while more than two thirds of them (70.7%) stated that doctors auscultated their fetal heart rate. The same table reveals different investigations and other health care services expected to be provided to the clients. As shown in this table, majority of clients (92.6%,94.6%) performed blood and urine analysis. In addition, more than two thirds of women (69.3%) stated that their abdomen were be examined by ultrasound. In addition, (33.3%, 95.3%, 74.6%) respectively received tetanus vaccine, iron and vitamin supplementation and instructions about nutrition. Majority of women (92.0%) were informed about the date of next visit.

Women' satisfaction with the quality of antenatal care services provided to them:

Concerning the clients' satisfaction with the quality of antenatal care services provided to them, **figure (2)** shows that slightly less than two thirds of the clients and one third of them (62.0%, 33.3%) respectively were either very satisfied or satisfied while 4.7% only expressed dissatisfaction.

Correlation between socio demographic characteristics and scores of satisfaction with provider-client interaction and quality of antenatal care services.

As shown in table (5) the older, low educated, housewives women and those who had small number of children were more satisfied with health care providers' interaction. However, the difference observed was statistically significant where $p = 0.021$, 0.007, 0.018 and 0.025 respectively. In addition, they were also more satisfied with the quality of antenatal care services provided to them. However, the difference observed was statistically significant where $p = 0.008$, 0.009, 0.005 and 0.032 respectively.

Table (1) : Socio-demographic characteristics of the women

Characteristics	No (n=150)	(%)
Age		
15>25	57	38.0
25>35	72	48.0
35>45	19	12.7
45-55	2	1.3
Mean + (SD)	**32.3±11.36**	
Woman's educational level		
Illiterate /read & write	22	14.7
Primary/Intermediate/Secondary education	71	47.3
University /Post graduate education	57	38.0
Husband's educational level		
Illiterate /read & write	10	6.7
Primary/Intermediate/Secondary education	73	48.7
University /Post graduate education	67	44.6
Employment status		
Housewives	127	84.7
Working	23	15.3
Number of living children		
None	43	28.7
≤ 3	81	54.0
>3	26	17.3
Pregnancy trimester at first visit		
First trimester	47	31.3
Second trimester	45	30.0
Third trimester	58	38.7

Table (2): Women's assessment of amenities at PHCs

Amenities	No (n=150)	(%)
Short distance between PHC &client's home	128	85.3
Waiting long time	79	52.7
Availability of chair in the waiting area	148	98.7
Availability of toilets for the clients	139	92.7

Table (3):Women 's assessment of provider - client interaction

Provider - Client Interaction	No (n=150)	(%)
Greeting the clients	144	96.0
Health care providers introduced themselves:		
Doctors only	22	14.7
Doctors and midwives	37	24.6
Neither doctor nor midwives	91	60.7
Asked about:		
The cause of the visit	146	97.3
Present health problems	138	92.0
The care providers listen carefully to client's complaints		
Usually	132	88.0
Sometimes	18	12.0

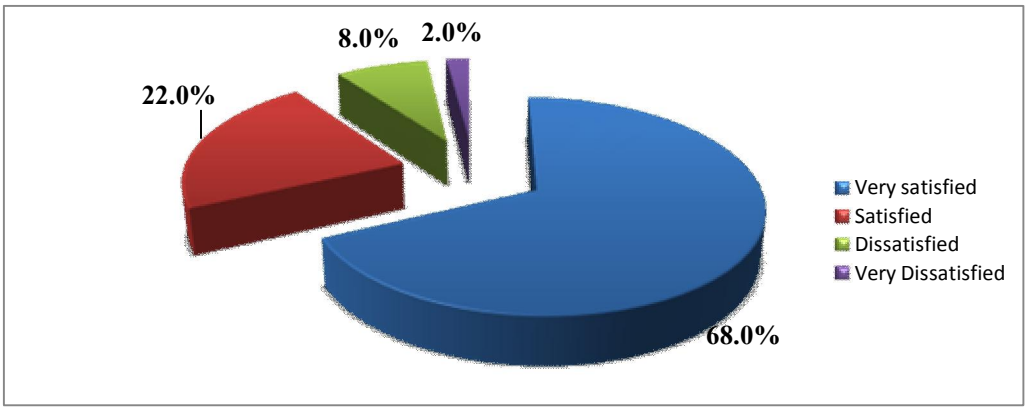

Fig. (1) Women's satisfaction with health care providers interaction with them

Table (4):Antenatal care services provided to the women

Services / procedures	No (n=150)	(%)
History taken		
Age	147	98.0
Level of education	100	66.7
Employment status	104	69.3
Date of last menstruation	147	98.0
Number of pregnancy	149	99.3
Number of living children	146	97.3
Number of abortion	143	95.3
Place of previous delivery	112	74.7
Type of previous delivery	114	76.0
Consanguinity with husband	111	74.0
Measuring length	138	92.0
Measuring weight	143	95.3
Measuring blood pressure	144	96.0
Examination of the:		
Eyes	17	11.3
Teeth	22	14.6
Lips	14	9.3
Gum	21	14.0
Chest	76	50.7
Lower limb for edema and varicose veins	65	43.3
Calculation of expected date of delivery	135	90.0
Abdominal palpation	121	80.7
Auscultation the FHR	106	70.7
Blood investigation	139	92.6
Urine analysis	142	94.6
Ultrasound investigation	104	69.3
Tetanus vaccination	50	33.3
Iron or vitamins supplementation	143	95.3
Nutritional counseling	112	74.6
Appointments of subsequent visits	138	92.0

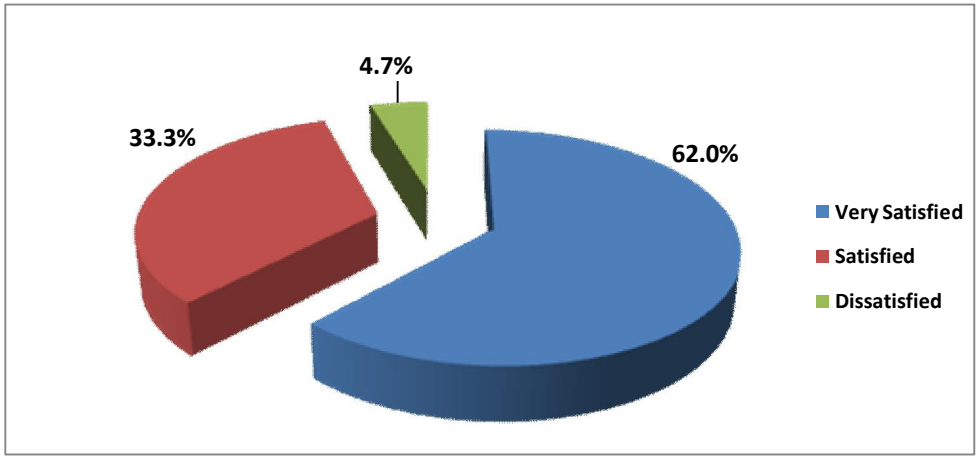

Fig (2): Women's Satisfaction with the quality of antenatal care services provided to them

Table (5): Correlation between socio demographic characteristics and scores of satisfaction with provider-client interaction and quality of antenatal care.

Model	T	P-value	T	P-value
	Satisfaction with provider- client interaction		Satisfaction with quality of antenatal care	
(Constant)	2.808	.0421	3.185	.0239
Age	1.260	.0211*	2.723	.0088*
Woman level of education	-1.077	0.007*	-2.070	.00944*
Husband level of education	1.494	.061	-0.319	.191
Woman work	-2.410	.0183*	-2.648	.00518*
Number of children	-2.569	.02571*	-2.65	0.032*

Discussion

Ante natal care (ANC) is the key entry point of a pregnant woman to receive broad range of health promotion and preventive services which provide the health of the mother and the baby [17].Quality of ANC is an important determinant of pregnancy outcome and has been designated one of the four pillars of safe motherhood, along with clean and safe delivery, essential obstetric care and family planning which could contribute to reduction of maternal mortality[18,19].Patient satisfaction and dissatisfaction indicate patients' judgment about the strengths and weaknesses of the services [20]. The aim of this study was to assess women's satisfaction with the quality of antenatal care at the PHC in Al-Madinah Al-Menawarh, KSA.

As shown in table (1) about one half of the pregnant women were between 25-35 years old. However, this is expected because it is the common and ideal age of childbearing. In addition, most of the clients were educated. It has been noted that in developing countries as a whole, women with secondary or higher education are more likely to attend for antenatal care than women with no education [21]. This result is congruent with the results of (Habib et al 2011)[13]. Literacy may denote a greater recognition of the need for the services, and greater ability to make full use of them[22]. Illiterate mothers may believe that pregnancy is a normal phenomenon and that there is no need for any specialized care. Moreover, more than three quarters of clients were housewives. This is anticipated because working women may not find the chance to visit the primary health centre especially during working hours. The same table reveals that only less than one fifth of clients who attended the primary health centre had more than 3 children. Having large number of children and caring for them may be one of the barriers for those women for not attending the primary care centre. This result is in line with the result of Shipman et al (2001) who found that 48.9% of telephone callers had expected to be offered a home visit for the same previous reason[23]. More than one third of women started ante natal care at the third trimester of pregnancy which is contrary to WHO recommendation of initiation of antenatal care

before sixteen weeks [24] .These findings may be due to lack of clients' knowledge about the importance of ANC.

It seems that the distance between the clients' homes and the centers played an important role on the follow up process because most of the women who attended antenatal clinic lived near from the centers (table 2). More than one half of the clients considered the waiting time to enter the examination room to be long. These results may refer to shortage in medical staff compared to the number of clients. However, these findings are not in agreement with Fawole et al. (2008) in Nigeria and Chandwani et al. (2009) in India[7, 25] .Moreover, majority of the women mentioned the availability of chairs and toilets in the waiting area (table 2). In contrast to these findings, Mgawadere (2009) reported that women had to wait for the services outside the examination room on the ground due to lack of proper structure besides, there was no specific toilet for antenatal women and they were using a general toilet at the facility which was about 100 meters away from the room used for ANC and was very untidy [17].

In primary health care, provider-client interaction is a fundamental platform and critically affects service delivery. Interpersonal interaction affects the perception of the patients about the provider's competency and consequently their satisfaction[26]. In the present study, most of the health care providers were greeting the clients, asked clients about the cause of visits, their health problems and they listened carefully to the clients' complaints (Table 3). As shown in figure (1) more than two thirds of the clients were very satisfied with provider-client interaction, these results are congruent with the results of Hansen et al. (2008) who presented nearly similar ratios [27].

The study revealed that majority of the clients were checked for weight and height (Table 4) and this also reported by Mgawadere, (2009) and Montasser et al (2012)[17,28] . In addition, blood pressure was checked for majority of women. This indicated that the health care providers screened for pre-eclampsia. According to WHO (2010b), screening for pre-eclampsia can reduce the risk of maternal death due to hypertension by 48% and neonatal deaths due to prematurity by 15%[29]. Examinations of the eyes, teeth, lips, gums, lower limbs were the tests least often performed. These results are in line with Habib et al (2011)[13]. Such missed examinations should be regarded as indicators of poor quality. However the finding could be due to lack of staff orientation about ante natal care, Inadequate staff training and lack of refresher courses to upgrade staff skills. In addition, a few minutes spent with the health care provider particularly when coupled with staff shortages appears to have a negative effect on the content of ante natal services that could be provided. About three quarters of clients or more were checked for fetal heart rate and fetal position (Table 4), these results are supported by Montasser et al (2012) who presented nearly the similar ratios [28].

Majority of the clients performed basic investigations like blood and urine analysis in the health care centers (Table 4). These results may be attributed to more available resources at the primary health centers in Al-Madina Al-Menawarh. However, these results are contradicted by Montasser et al (2012) who found that > 80% of target group didn't perform basic investigations which may be due to lack of experience of physician or unavailable resources [28]. Ultrasound examination was reported by more than two thirds of the clients but Tran et al. (2011) in Vietnam found that nearly all attendants in urban areas received ultrasound examination and slightly lower in rural areas [30]. This could be due to limited examination time with increased number of clients.

In addition, only one third of the clients received tetanus vaccine, this is due to the strict system of vaccination for mother and child that is carried out by the ministry of health. These results are supported by findings of Nisar and Amjad, (2007) who reported that 75% of women did not have complete tetanus vaccine[31].

Nutritional education and iron supplementation were be reported by large proportions of clients (table 4), this is attributed to the inclusion of nutritional counseling within the antenatal care program. These are in agreement with Tran et al (2011) , Mgawadere (2009) who found that about 80% of the women received iron supplementation and Khadr (2009) who found that 64% received iron[17,30,32]. These results are contradicted by El-Kak et al. (2004) in Lebanon who found that only one-third of women were given diet recommendations [33].

The overall clients' satisfaction with the quality of ante natal care services provided to them was relatively high (Fig.2), this result is supported by other studies which were carried out by Al-azmi et al (2006), Al-Eisa et al (2005) and Al-Faris et al., (1996) that showed a higher overall patients' satisfaction with Riyadh health centers (90%)[34,35,36].

The relationship between socio demographic characteristics and clients' satisfaction with provider-client interaction and quality of antenatal care provided to them was investigated in the present study. The older, low educated, housewives women were more satisfied with client- provider interaction and with the quality of antenatal care (Table 5). However, the expressed satisfaction in this study may

be due to lack of client's knowledge about care they could expect at the antenatal clinic .In addition, the literature appears to support this in that older women expected less information from their doctors[35]. These findings are in agreement with Al-azmi et al (2006), Al-Doghaither in Riyadh (2004) who found that the oldest group of respondents were more satisfied with the primary care services than younger[34,37]. In addition, Babic et al (2001) reported that less educated patients were generally more satisfied[38].

Conclusion:

It can be concluded from the results of the present study that although the overall satisfaction with the quality of antenatal care was high, some aspects of provided ante natal care were inadequate. In addition, the present study showed that good communication with the clients significantly influence patient satisfaction. Therefore, health care providers should work towards improving the communication skill of their professionals along with having technically competent work. It is also evident that the lower educated and housewives women were more satisfied.

Recommendation:

Based on the findings of the present study, the following recommendations are suggested:

1. Enhance strategies to increase the health care worker knowledge and improve training courses of the providers to upgrades their communication and counseling skills.
2. Government should recruit large numbers of qualified health care providers to decrease work load on the staff and to increase the examination and consultation time.
3. Ministry of health should provide more flexible working hours of primary health care centers to provide more opportunities for working women to attend the clinic.
4. Patient satisfaction surveys should be carried out routinely in all aspect of health care to improve the quality of services.
5. Different health education methods should be available to increase awareness of the women about the importance and components of antenatal care.

For further research

6. Further studies should be carried out to examine obstacles that face health care providers in their work place, their suggestions for improving antenatal care and their job satisfaction.

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