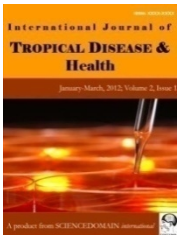

International Journal of TROPICAL DISEASE & Health
2(2): 145-156, 2012

SCIENCEDOMAIN *international*
www.sciencedomain.org

Egyptian Women's Satisfaction and Perception of Antenatal Care

Nadia Abd El-Hamed Montasser[1], Randah Mohamad Helal[1*], Walaa Mohamed Megahed[2], Sally Khairat Amin[2], Adel Mohemed Saad[2], Talaat Refaat Ibrahim[2] and Haitham Mohemed Abd Elmoneem[2]

[1]Department of Community Medicine, College of Medicine, Mansoura University, Egypt.
[2]Ministry of Health and Population, Egypt.

Authors' contributions

This work was carried out in collaboration between all authors. NAEM designed and put the idea of the study, performed the statistical analysis, wrote the protocol, revised the manuscript. RMH managed the analyses of the study, wrote the manuscript and managed the literature searches. WMM, SKA, AMS, TRI and HMAE were responsible for data collection. All authors read and approved the final manuscript.

Research Article

Received 15th March 2012
Accepted 13th May 2012
Online Ready 29th May 2012

ABSTRACT

Aim: to assess pregnant women perception of ANC (antenatal care) and their satisfaction with different aspects of care.
Study Design: A Cross sectional study was conducted on 600 pregnant females.
Place and Duration of Study: Shawa family medicine center in Shawa village in Mansoura, Dakahlia governorate from March 2010 to September 2010.
Methodology: Our target group completed the questionnaire including socio-demographic data, duration of pregnancy and number of their antenatal visit, questions to assess; satisfaction about different aspects of quality of the care, to assess women perception for ANC components.
Results: High satisfaction (>90%) was reported for waiting time for laboratory results, answering inquiries and help by staff, trust the doctor followed by cleanness of the center, privacy, most of accessibility items, most of physician performance items. Satisfaction (<30%) reported for location of the center, health education methods, explanation of the problems by physician. All females who came for repeated visits confirmed the application

**Corresponding author: Email: ranhel2000@yahoo.com;*

of follow up measures in each visit by doctors. The majority of the female (>75%) received proper nutritional care and fetal examination, performed ultrasound examination and only 65% actually received tetanus toxoid. <40% reported home visits, familial participation in care, had blood and stool analysis. Pregnant females were satisfied with most of the health education messages. Information about teeth care, breast care and clothing achieved lowest satisfaction (<20%).
Conclusions: The majority of the females was satisfied by the quality of care and reported the perception of ANC components however; low satisfaction with health education components indicates a need for strategies to improve this important aspect of care.

Keywords: Satisfaction; perception; antenatal care; quality of care.

1. INTRODUCTION

Antenatal care has been routine practice throughout the world since early in the 20th Century (Moos, 2006). It refers to pregnancy related health care provided by a doctor or a health worker in a health facility or home (Srilatha et al., 2002).

Antenatal care-related expectations of pregnant women fall into four main categories: the wish to be provided with enough information, emotional support, general support in relation with representation of their interests, and the wish to be provided with professional care (Douglas et al., 2007).

According to Egypt Demography and health Survey, slightly more than one quarter of Egyptian pregnant women do not receive antenatal care. However, among those who receive antenatal care only one third of them received advised about signs of obstetric complications and where and when to seek medical assistance (El- Zanaty and Way, 2009). In Egypt, maternal mortality ratio has declined dramatically from 174/100000 live births in 1992-1993 to 67.6/100000 live births in 2005, a further decline to 44.6/100000 was also reported by 2009 (GHC, 2010; WHO, 2010).

Quality of ANC is an important determinant of pregnancy outcome (Cohen, 2005) 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 (Turan et al., 2006). Poor antenatal care is considered the second most important preventable factor in maternal mortality after substandard obstetric care (Campbell et al., 2005).

Patient satisfaction with quality of care is the degree to which the patient's desired expectations, goals and or preferences are met by the health care provider and or service (Debono and Travaglia, 2009). Satisfaction and dissatisfaction indicate patients' judgment about the strengths and weaknesses, respectively, of the service (Chow et al., 2009). Also women perception with care often determines clients' willingness to comply and continue with the service. Some studies have reported women satisfaction with antenatal care (Dyah and Rizal, 2002; Fawole et al., 2008); specifically in these studies women were satisfied with the care received, interpersonal relationship and the infrastructures for providing the care.

However, other studies have revealed women dissatisfaction with antenatal care (Amooti-kaguna and Nuwaha, 2002; Oladapo and Osiberu, 2008). Reasons for dissatisfaction in most of these studies were; long waiting time, inadequate medicine supply and health workers negative attitudes. Health workers have often treated women rudely.

The available Egyptian researches do not assess women's satisfaction and perception of different aspects of quality of care with specification to the different components of antenatal care, so our study examines these points together to give comprehensive assessment of the maternal health services provided. The aim of this study was to assess pregnant women perception of antenatal care and their degree of satisfaction with different aspects of care.

2. SUBJECTS AND METHODS

2.1 Study Location

The study carried out at family medicine center in Shawa village, Dakahlia governorate, Egypt. Shawa village is one of the largest villages in Mansoura center and it is elected to be one of the model villages in Egypt. It is about 2 km from Mansoura city (The capital of Dakahlia governorate) and it contains airport wars, its population reached up to 20000. The family medicine center serves Shawa village and some small surrounding villages.

2.2 Study Design

A cross sectional descriptive study was conducted on pregnant females who attended the antenatal care clinic in Shawa center in the period between March 2010 and September 2010. 750 women were invited to participate in the study, out of which 150 refused who were excluded and so our target group included 600 pregnant female.

2.3 Data Collection

Data was collected by interviewing patients (face to face interview) using a well-structured questionnaire that included questions about: Age, education, occupation, duration of pregnancy and number of their antenatal visit, questions to assess the satisfaction about different aspects of quality of care as accessibility, cleanness, waiting time, performance of physician and performance of the staff and privacy. Also the questionnaire had questions to assess the women perception for antenatal care components as registration, examination (maternal and fetal), investigations whether laboratory or imaging, immunization, health education, nutritional care, social care and home visit. Satisfaction was accessed with three response categories (satisfied, satisfied to some extent, not satisfied).

2.4 Data Management and Analysis

Data was collected and tabulated and analyzed using SPSS computer system. As it is a descriptive study, number and percent used in the interpretation of data.

3. RESULTS

This study was carried out to evaluate the degree of satisfaction among females attending antenatal care clinics in Shawa family medicine center towards antenatal care services that provided to them. A total of 600 pregnant female who attended family medicine Center were

interviewed. Their age ranged from 18 to 42 years. The distribution of women in the sample according to their education is presented in Table 1. 42.1% had completed secondary education and higher. About (33.7%) of women interviewed had more than 2 children. The majority (67.8%) was pregnant for more than 20w. Females attended for the first visit accounted for 31.2% and 68.8% for repeated visit.

Table 1. Characteristics of the studied group

Age	**N**	**%**
< 20 years	158	26.33%
20- 30 years	385	64.16%
30-40	55	9.16%
>40	2	0.33%
Education		
Illiterate	18	3%
Read &write	44	7.3%
Primary	285	47.5%
Secondary	226	37.6%
University	27	4.5%
Occupation		
work	29	4.8%
Don't work	571	95.1%
Number of children		
0	70	11.7%
1	154	25.6%
2	174	29%
>2	202	33.7%
Pregnancy duration		
<20w	193	32.2%
>20w	407	67.8%
Number of visits		
1st visit	187	31.2%
Repeated visit	413	68.8%

Regarding the degree of satisfaction about the services delivered in the center Table 2 showed the satisfaction about accessibility as regard location of the center in relation to dwelling zone most of the clients were not satisfied with the center location (72.2%), however more than three quarters were satisfied by the availability of transporting methods to reach the center (79.7%) and hours of work (77.9%). High degree of satisfaction regarding the waiting time before examination (88.6%) was detected. Also satisfaction about waiting time for laboratory results showed that the majority (98.1%) were satisfied with waiting less than 30 minutes.

Majority of females were satisfied with cleanness of the center (88.5%) and toilet state (78.7%), 14% of them didn't use the toilet.

Satisfaction regarding the performance of physician team in the center showed that 95.5% of the client trust their doctor followed by the way of answering their questions (82.83%). Nearly equal rates of satisfaction reported for the examination time (75.6%) which was from 6 to 20 minutes, taking medical history (73%), explaining the rational for investigation (72.3%) and

explaining the result of investigation (69.6%). Only 16.3% of patient were satisfied by the way the doctor explain their problem.

The satisfaction with performance of nurses and other center staff showed that most of the patients (83%) were satisfied with the pattern of staff management (dealing politely and professionally), 98% of patient were satisfied with answering inquiries and providing help. Regarding feeling privacy in the center the majority of women (87.2%) feel privacy while (12.8%) to some extent.

Table 2. Female satisfaction about different aspects of care

	Satisfied		To some extent		Not satisfied	
	N	%	N	%	N	%
Accessibility						
Location of the center	167	27.8%	0	0%	433	72.2%
Access to the center	478	79.7%	46	7.7%	76	12.6%
Hours of work	467	77.9%	50	8.3%	83	13.8%
Waiting time for examination	532	88.6%	68	11.3%	0	0%
Waiting for results	589	98.1%	11	1.9%	0	0%
Cleanness						
Cleanness of the center	531	88.5%	0	0%	59	10%
Cleanness of the Toilet	472	78.7%	44	7.3%	84	14%
Performance of physician						
Answering questions	497	82.8%	103	17.2%	0	0%
Taking history	438	73%	162	27%	0	0%
Explanation of problem	98	16.3%	502	83.67%	0	0%
Trusting the doctor	597	95.5%	0	0%	3	0.5
Examination time	454	75.6%	0	0%	114	19
Explanation of rational for investigation.	434	72.3%	166	27.7%	0	0%
Explanation of results of Investigation	418	69.6%	149	24.9%	33	5.5%
Performance of staff						
Pattern of Dealing	500	83.3%	70	11.6%	30	5%
Delivering of information	588	98%	12	2%	0	0%
Privacy						
Privacy in the center	523	87.2%	77	12.8%	0	0%

Regarding female perception of different ANC components as shown in Table (3), 75.8% of the female had pregnancy follow up cards and they used it regularly in each visit , however only 20.4% had family files. About one quarter of the female (24.8%) reported that the physician performed full clinical examination and at the same time all of patients who came for repeated visits confirmed that the doctors properly followed up weight, blood pressure and pregnancy state in each visit. Fetal examination was done for most of the female as 71.6% had fetal heart sound examination and 76.3% examined for fetal position.

About 77.6% of patients reported that ultrasound examination had been done but less percent was reported for laboratory investigations as ABO grouping & RH typing (10.5%), blood sugar (13%), stool (17.8%) and nearly half of the patients performed urine analysis. All

the female reported that the tetanus toxoid vaccine is available but only 65% of patients actually received it.

The majority of the female received proper nutritional care in the form of nutritional education (88.5%) and nutritional supplementation in the form of iron and folic acid (95.4%). Regarding social care of patients, less than half of the female reported having social and psychological care. Also, 86.3% denied asking for husband & relatives accompany during some visits. Finally 62.6% of females denied the presence of home visits.

Table 3. Female perception of different ANC components

Components of ANC	Women perception care			
	Yes		No	
	N	%	N	%
Registration				
Clients having family file	122	20.4%	478	79.6%
Clients using follow up cards	455	75.8%	145	24.2%
Examination				
Comprehensive medical examination	149	24.8%	451	75.2%
Follow up measures every visit*	413	100%	0	0%
Fetal examination				
Fetal Ht. sound	430	71.6%	170	28.4%
Fetal position	458	76.3%	142	23.7%
Imaging examination				
Ultrasound	466	77.6%	134	22.4%
Laboratory investigation				
ABO	63	10.5%	537	89.5%
R h factor	63	10.5%	537	89.5%
Blood sugar	79	13%	521	87%
Urine	288	48%	312	52%
Stool	107	17.8%	493	82.2%
Immunization				
Vaccination availability	600	100%	0	0%
Vaccination supply	390	65%	210	35%
Nutritional care				
Nutritional education	531	88.5%	69	11.5%
Iron supplementation	572	95.4	28	4.6%
Social care				
Concerning social and psychological aspects	263	43.9%	337	56.1%
Considering familial participation in care	82	13.7%	518	86.3%
Home visit				
Home visit	224	37.4%	376	62.6%

**The total equals 413 who came for repeated visits.*

Degree of satisfaction regarding health education showed that only 23.3% of patients were satisfied with health education programs and 37.5% were satisfied with physician explanation of advantages of ANC. Satisfaction of patients regarding orientation about pregnancy care showed that 64.2% of patients were satisfied about explanation of physician about safe effort during pregnancy, 55.5% of patients were satisfied by explanation of measures of personal hygiene, more than half of the female were not satisfied about the degree of awareness given about teeth care (55%), breast care (57.6%) and 60.5% of

women did not receive information from the physician about proper clothes during pregnancy.

About 87% of the females had reported satisfaction with physician explanation about importance of breast feeding and the supply of information about high risk signs (83%). Lower percent of satisfaction was reported for follow up appointment (77.7%), allowable medication (75.7%) and fetal movement follow up (65%). Half of the female were satisfied about the information they received regarding basics of newborn care.

Table 4. Female satisfaction about health education messages

Health education	Satisfied		To some extent		Not satisfied	
	N	%	N	%	N	%
Health education programs	140	23.3%	166	27.7%	294	49%
Antenatal care advantages	441	73.5%	90	15%	69	11.5%
Pregnancy care						
Physical activity	385	64.2%	90	15%	125	20.8%
Personal hygiene	333	55.5%	105	17.5%	162	27%
Teeth care	92	15.3%	178	29.7%	330	55%
Breast care	118	19.7%	136	22.7%	346	57.6%
Clothing	116	19.3%	121	20.2%	363	60.5%
Fetal movement follow up	390	65%	135	22.5%	75	12.5%
Allowable medication	454	75.7%	64	10.7%	82	13.6%
Importance of breast feed	523	87.2%	26	4.3%	51	8.5%
Basics of new born care	295	49.5%	112	18.7%	193	32.1%
Follow up appointment.	466	77.7%	65	10.8%	69	11.5%
High risk information	498	83%	46	7.7%	56	9.3%
At late pregnancy						
Signs of labor	406	67.7%	100	16.6%	94	15.7%
Risks during labor	303	50.5%	152	25.3%	145	24.2%

Satisfaction of females towards the knowledge provided by the physician about late pregnancy period showed that about 67.7 % were satisfied with information provided by the physician about signs of labor and 50% was satisfied with the explanation of the risks of labor.

4. DISCUSSION

ANC is the key entry point of a pregnant woman to receive broad range of health promotion and preventive services which promote the health of the mother and the baby (Mgawadere, 2009). The result of this study revealed that the majority of women were satisfied with the quality of antenatal care they received, this high satisfaction may be explained as the majority had secondary education or lower, not working, lives within the catchment area of the center, this is in agreement with the results of a study carried out in Iraq which reported wide range of satisfaction towards prenatal care (Habib, 2004).

Most women in this study considered the time spent at the clinic to be appropriate either the waiting time to see the physician or waiting time for result of investigation and these results agreed with Fawole et al. (2008) in Nigeria (67.1%) and Chandwani et al. (2009) in India. Hansen et al. (2008) in Afganistan reported that client perceptions of quality are sensitive to the amount of time clients are kept waiting before being seen by the provider, but not

sensitive to the amount of time the provider spends with them. However Habib (2004) reported that waiting time seems a bit long as the attendants were housewives who reported that they are usually very busy with work at home.

The study revealed that 72% of females were not at all satisfied with the accessibility of the service as regard location of the center in spite of being from the catchment area of the center and this is probably due to the long distance between the center and the nearest residential area. At the same time Gemeay (2011) in his study in Riyad found that only 11% were satisfied and about 88% were not satisfied by accessibility to the hospital. These results disagree with the results of the study conducted in Pakistan that revealed high percent of satisfaction 64% (Anjum, 2005). Cleanness is one of the aspects of quality of care, in this study the majority of females were satisfied with cleanness of the center and this is in agreement with Hansen et al. (2008). These variation regarding the accessibility and cleanness are usually related to the characteristics of place of different studies.

Communication by providers to with the women during antenatal visits plays an important role (Douglas et al., 2007), but not the amount of time the provider spends with them, a few minutes spent with the provider appears not to have a negative effect on perceived quality (Hansen et al., 2008). In our study, most of the clients were satisfied by the physicians and this go with Hansen et al. (2008) In another 2 studies conducted in Malawi, poor attitudes of health workers have been identified in the study of Graham et al. (2001) and 50% of the studied group only reported satisfaction in the study of Changole, (2010). Our clients showed high satisfaction regarding performance of staff, which is similar to what reported by Ghobashi and Khandekar, (2008) in Oman who found that the positive behavior of the health staff and the warm reception mothers received in the antenatal care unit were the most satisfying parts of the services. Feeling privacy in the center showed high satisfaction and this concurs with Hansen et al. (2008) and Oladapo et al. (2008).

Regarding the perception of different ANC components, the degree of satisfaction towards the registration in the center was low (20%) and this is due to the defect in the process of registration that appears in many primary health care facilities. The study revealed that all the females came for repeated visits were checked for follow up measures as weight and height and this also reported by Mgawadere (2009) in Malawi. About three quarters of our target group checked for fetal heart rate and fetal position, however higher rates reported by Ouma et al. (2010) in Kenya (>95%). Ultrasound examination reported in 77% of the female but Tran et al. (2011) in Vietnam found that nearly all attendants in urban areas received ultrasound examination and slightly lower in rural areas. But on the other hand > 80% of our target group don't do basic investigations which may be due to lake of experience of physician or unavailable resources and these results agreed with Ouma et al. (2010) who found that about one quarter only did urine analysis (30%-23%) in two cities in Kenya and much lower for stool analysis (24.2%-11.7%) respectively. The same results were reported by Tran et al. (2011) [in] rural areas but in urban areas reach up to 88%. However the female did ABO/RH reached up to 80% and those with screening for blood glucose reached up to 50%. Also in the study carried by Rumbold et al. (2011) in Australia and these differences may be due to more available resources and the strict regimen for implementation of the antenatal care program. Regarding satisfaction toward vaccination, all the female reported that the tetanus toxoid vaccine is available but only 65% actually received it and this is due to the strict system of vaccination of mother and child that is carried out by the ministry of health and population. Higher rates of vaccination coverage had been reported by Khadr, (2009) (>80%) in his study in Egypt and Mgawadere, (2009) (>95%) in Malawi and this difference may be due to the different approach they used as they recalled the vaccination

history about previous pregnancies from women in the childbearing period. In contrast to these finding Nisar and Amjad, (2007) reported that 75% of women did not have complete tetanus vaccine.

High level of nutritional care in the form of nutritional education and nutritional supplementation mainly with iron were reported in our study, this is attributed to the inclusion of nutritional care within the regimen for implementation of 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. Both Anya et al. (2008) in Gambia and El-Kak et al. (2004) in Lebanon found that only One-third of women were given diet recommendations.

Social care reported in less than half of the female, also Handler et al. (2003) in his study among African American women found that only 27.3% had social services.

One of the main goals of antenatal care is the provision of adequate information that is essential for maintaining and improving pregnancy outcomes. A large proportion of women in this study perceived that their information needs were satisfactorily met. It should be noted that information “as much as they wanted” would generally be influenced by the social, cultural and educational context of women in these communities. Women only want to receive information that is relevant to their needs, desires and lifestyles and therefore may only perceive information that addresses personal circumstance as useful. It is also possible that women in this study have tailored their health information needs along the expected consultation time, which usually averaged 5 minutes. This consultation time is a far cry from the 30 minutes recommended for focused antenatal care, which aims to consolidate the information components of antenatal care. About fifth of the female not satisfied by information about physical activity during pregnancy, different rates reported in different studies, for example El-Kak et al. (2004) found that only 6% received exercise advice, however Nisar and Amjad, (2007) found that 46% received information about exercise. Up to three quarters of our group received personal hygiene advice but Habib (2004) reported that only half of his studied group received this advice. More than 80% were satisfied with physician explanation about importance of breast feeding, this is in agreement with Oladapo et al. (2008) and Mgawadere (2009). The female who received information about newborn care reached up to 68% however Anya et al. (2008) reported that only about 30% received this information. About 10% of the studied group was not provided any information on how to recognize and proceed when danger symptoms or signs appear. Also low percent of our studied group were not satisfied about information regarding labor and delivery, these in concur to what reported by Oladapo et al. (2008) who found that >75% received proper information in Southern Nigeria. However Rani et al. (2008) reported that from one quarter to one half received delivery care information in north and south India respectively. Deficiency in information provided to some women may be due to poor knowledge of providers about these issues or time constraints; this may reflect the importance of continuous training programs to health care providers to improve their knowledge and communication skills.

5. LIMITATIONS

This study had some limitations. It is cross-sectional, and so the relation between satisfaction and different background variable cannot be done. Another limitation is that the authors did not measure expectations as satisfaction with care depends on expectations, and often women of lower socioeconomic status have lower expectations, thus

overestimating quality of care. The last limitation is that there were no objective measures of quality of care.

6. CONCLUSION AND RECOMMENDATION

The majority of the female were satisfied by the quality of care and the items of health education, also most of them reported the perception of antenatal care components. However low satisfaction rates were reported for location of the center, health education methods, explanation of the problems by physician, information about teeth care, breast care and clothing and frequency of home visits, familial participation in care, and performance of blood and stool analysis. So in order to achieve higher degrees of satisfaction toward ANC, different health education methods should be available, also enhance strategies to increase the health care worker knowledge and improve training courses of the providers to upgrades their communication and counseling skills, increasing the staff strength to cope with the clients' load and increasing the consultation time and addressing possible providers' attitude that often create barriers to communication with the clients.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

CONSENT

Oral consent was taken from the pregnant women before participation in the study.

REFERENCES

Amooti-kaguna, B.F., Nuwaha, F. (2002). Factors influencing choice of delivery sites in Rakai District of Uganda. Soc Sci Med, 50(2), 203–213.

Anya, S.E., Hydara, A., Jaiteh, L.E.S. (2008). Antenatal care in The Gambia: Missed opportunity for information, education and communication BMC Pregnancy Childbirth, 8, 9.

Campbell, O., Gipson, R., Issa, A.H., et al. (2005). National maternal mortality ratio in Egypt halved between 1992–93 and 2000. Bull World Health Organ, 83(6), 462–70.

Chandwani, H., Jivarajani, P., Jivarajani, H. (2009). Community perception and client satisfaction about the primary health care services In A Tribal Setting Of Gujarat - India. The Internet Journal of Health, 9(2).

Changole, J., Bandawe, C., Makanani, B. (2010). Patients' satisfaction with reproductive health services at Gogo Chatinkha Maternity Unit, Queen Elizabeth Central Hospital, Blantyre, Malawi. Malawi Medical Journal, 22(1), 5-9.

Chow, A., Mayer, E.K., Darzi, A.W., Athanasiou, T. (2009). Patient-reported outcome measures: the importance of patient satisfaction in surgery. Surgery, 146, 435–43.

Cohen, J.R. (2005). Patient satisfaction with prenatal care provider and the risk of cesarean delivery. Am J Obstet Gynecol, 192, 2029–34.

Debono, D., Travaglia, J. (2009). Complaints and patient satisfaction: A comprehensive review of the literature. University of New South Wales, Centre for Clinical Governance Research in Health, 4, 5,14,15, 27, 38.

Douglas, S., Cervin, C., Bower, K.N. (2007). What women expect of family physicians as maternity care providers. Can Fam Physician, 53(5), 875-9.

Dyah, S., Rizal, A.M. (2002). Patients Satisfaction in antenatal Clinic at Hospital University Kebangsaan. Malysia. J Med, 12(1), 19.

El- Zanaty, F., Way, A. (2011). Egypt Demographic and Health Survey 2008. Ministry of Health, El Zanaty and Associates and Macro International, Cairo. 2009 (http://www.measuredhs.com/pubs/pdf/FR220/FR220.pdf). (Last accessed November 2011).

El-Kak, F., Chaaya, M., Campbell, O., Kaddour, A. (2004). Patterns of antenatal care in low- versus high-risk pregnancies in Lebanon EMHJ, 10(3), 268-276.

Fawole, A.O., Okunlola, M.A., Adekunle, A.O. (2008). Clients Perception of quality of Antenatal care. J Natl Med Assoc, 100(9), 10-17.

Gemeay, E. (2011). Identification of factors associated with maternal satisfaction with primary health care center in Riyadh City Available at http://kingsaud.academia.edu/EsmatGemeay/Papers/231752/Identification_of_factor_associated_with_maternal_satisfaction_with_primary_health_care_center_in_Riyadh_City#. accessed November2011.

GHC (Global Health Council) (2011). Report: Available at http://www.globalhealth.org/reports/report.php3. (last accessed on August, 2011).

Ghobashi, M., Khandekar, R. (2008). Satisfaction among Expectant Mothers with Antenatal Care Services in the Musandam Region of Oman. Sultan Qaboos Univ Med J, 8(3), 325-332.

Graham, W., Bell, J., Bullough, C.H. (2001). Can skilled attendance at delivery reduce maternal morbidity in developing countries? In: De Brouwere V, Van Lerberghe W, editors. Safe motherhood strategies: A review of the evidence. ITG Press, Studies in Health Services Organization and Policy, 17, 91– 131.

Habib, O.S. (2004). Client exit survey on satisfaction with primary health care services and perception of antenatal care and child care in Basrah, Iraq, A health center-based survey funded by a grant to Al-Wafa Society, provided through the I-HELP Small Grants Program managed by Abt Associates Inc. and funded by USAID through contract no. RAN-C-00-03- 00010-00.

Handler, A., Rosenberg, D., Raube, K., Lyons, S. (2003). Prenatal care characteristics and African American women's satisfaction with care in a managed care organization. Women's Health Issues, 13(3), 93–103.

Hansen, P.M., Peters, D.H., Viswanathan, K., Rao, K.D., Mashkoor, A., Burnham, G. (2008). Client perceptions of the quality of primary care services in Afghanistan. Int J Qual Health Care, 20(6), 384–391.

Javed, A. (2005). A Patient satisfaction towards outpatient department services in Pakistan institute of medical sciences, Islamabad. A thesis submitted in partial fulfillment of the requirements for the degree of master of primary health care management faculty of graduate studies Mahidol university.

Khadr, Z. (2009). Monitoring socioeconomic inequity in maternal health indicators in Egypt: 1995-2005. Int J Equity Health, 8, 38.

Mgawadere, F.M. (2009). Assessing the quality of antenatal care at Lungwena Health Centre in Rural Malawi. A Dissertation Submitted in Partial Fulfillment of The Requirements of the Master Of Public Health Degree, College of Medicine, University of Malaŵi.

Moos, M. (2006). Prenatal care: limitations and opportunities. J Obstet Gynecol Neonatal Nurs, 35, 278–285.

Nisar, N., Amjad, R. (2007). Pattern of antenatal care provided at a public sector hospital Hyderabad Sindh. J Ayub Med Coll Abbottabad, 19(4), 11-3.

Oladapo, O.T., Osiberu, M.O. (2008). Do Socio-demographic characteristics of pregnant women determine their perception of antenatal care? Matern. Child Health J, 10(2), 200-2004. [Accessed November 2011]; Available from: http://www.springerlink.com/content/7nn725w5u7106088.

Oladapo, O.T., Iyaniwura, C.A., Sule-Odu, A.O. (2008). Quality of antenatal services at the primary care level in southwest Nigeria. Afr J Reprod Health, 12(3), 71-92.

Ouma, P.O., van Eijk, A.M., Hamel, M.J. et al. (2010). Antenatal and delivery care in rural western Kenya: the effect of training health care workers to provide "focused antenatal care". Reprod. Health, 7, 1.

Rani, M., Bonu, S., Harvey, S. (2008). Differentials in the quality of antenatal care in India International Journal for Quality in Health Care, 20(1), 62–71.

Rumbold, A.R., Bailie, R.S., Si, D. et al. (2011). Delivery of maternal health care in Indigenous primary care services: baseline data for an ongoing quality improvement initiative. BMC Pregnancy Childbirth, 11, 16.

Srilatha, D., Ramadevis, S., Amma, L.I. (2002). Vijayakumar. Assessing the quality of Antenatal Care in Thiruvananthapuran district. Project Report.

Tran, T.K., Nguyen, C.T., Nguyen, H.D. et al. (2011). Urban - rural disparities in antenatal care utilization: a study of two cohorts of pregnant women in Vietnam. BMC Health Serv Res., 11, 120.

Turan, J.M., Bulut, A., Nalbant, H., Ortayh, Akalin, A.H. (2006). The quality of Hospital based Antenatal care in Istanbul. Stud Fam Plann, 37(1), 49-60.

WHO (World Health Organization EMRO country profile). (2011). page: http://www.emro.who.int/emrinfo/index.asp?Ctry=egy last updated 2010, accessed on November, 2011.

© 2012 Montasser et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/3.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.