

Full Length Research Paper

Perception of care in Zambian women attending community antenatal clinics

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Antenatal care focuses on health promotion to ensure a safe pregnancy and delivery, but it is a major concern in most developing nations that many expectant mothers either have no access to these clinics or do not avail of the facilities when they do exist. The study was conducted at the five antenatal clinics under the Lusaka Urban District Health Medical Team. Data was collected from 194 expectant mothers (16-41 years), randomly sampled, at five antenatal clinics. A semi-structured interview schedule was administered and Focus Group Discussions (FGDs) were carried out with the expectant mothers. FGDs were also carried out with sisters-in-charge and/or the midwives at the five clinics. Informed consent was obtained from all participants prior to the interview and FGDs. The results obtained were subject to descriptive statistical analyses and qualitative analyses of the FGDs were also carried out. The majority of the women reported that they were satisfied with care, with 98% agreeing that the clinic was helpful. There was evidence of dissatisfaction with the amenities within the clinic such as seating and toilet facilities. Although those participants who responded were very positive about the nursing staff, a significant minority of women failed to respond to questions about the quality of care. FGDs, suggests that embarrassment and fear tended to inhibit communication.

Key words: Antenatal care, Zambia, Satisfaction

INTRODUCTION

Pregnancy has been variously described as being a time of joy and a time of sorrow – depending on the bio-psycho-social conditions that the mother is faced with during this time. This is also a period that finds the expectant mother to be in a vulnerable position, with regard to her physical and psychological health and in developing countries; there is sometimes the added burden to the pregnant woman of the family at large, with regard to the availability of finances. These changes often add new stresses to the lives of women who already face many demands at home and at work (Samuel, 1996). Pregnancy is a time when women's health is placed at risk by a host of factors, in addition, many pregnant women and their partners worry about the health of the baby, their ability to cope with labour and delivery, and their ability to become good parents

(Samuel, 1996). However, professionals providing antenatal care can reduce that risk by monitoring women's health regularly and offering preventive services. Antenatal care is an important part of preventive medicine, its objective being to maintain the mother in health of body and mind, to anticipate difficulties and complications of labour, to ensure the birth of a healthy infant, and to help the mother rear the child (Clayton et al., 1985).

When an expectant mother comes to hospital, she often comes from a family and is influenced by the community in which she lives. In the hospital she should be able to get much support and comfort she would normally receive from her spouse/significant other, or someone close to her (Broadribb, 1973) the relationship between expectant mother and the health worker is of utmost importance. The health worker must be able offer meaningful support, encouragement to the expectant mother (Fisher, 1994).

The number of times a woman needs to be seen during her pregnancy varies. Ideally, the first visit should be as

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early in the pregnancy as possible. Thereafter, she should be seen every four weeks until the 30th week, fortnightly until the 36th week, and then weekly until the onset of labour. If complications should arise, more frequent visits will be warranted (Clayton et al., 1985). Many critics, however, have dubbed this traditional approach to antenatal care a euro-centric model. Sadly, many developing countries have adopted this approach without adjusting the interventions to meet the needs of their particular populations, taking into account their available resources. The focused antenatal care approach is a more practical model that can be efficiently used in developing nations.

Pregnancy is also associated with various psychosocial risks. A literature review by Reid et al. (1998) revealed 15 antenatal psychosocial risk factors associated with poor postpartum family outcomes. These included woman abuse, child abuse, postpartum depression, marital/couple dysfunction and increased physical illness. Another major concern is with regard to antenatal depression. Substance dependency and experienced difficulties, especially in relation to friends, partner and own mother, are associated with antenatal depression (Pajulo et al., 2001). However, the strongest risk factors for postpartum depressive symptoms are reported to be sick leave during pregnancy and a high number of visits to the antenatal care clinic (Josefsson et al., 2002). Antenatal care that is exclusively focused on somatic conditions may lead to ignorance of pregnant women's psychosocial problems, thus missing a chance for intervention. Screening for psychosocial conditions in pregnant women may reveal information about important life aspects that are not detected in a standardized antenatal care form (Forde et al., 1992). Melender (2002) found fear and negative mood in expectant mothers, as a result of negative stories told by others, alarming information, diseases and child-related problems; and in multiparas, negative experiences of previous pregnancy, childbirth, and baby's health and care. Psychosocial factors during pregnancy also seems to have a long term effect, it was found that women who perceived their social network as less supportive during pregnancy were likely to see their one-year-old babies as being more difficult (Adler et al., 1991). Cultural and various other factors play a major role in a woman's experience of pregnancy. There is a qualitative difference in the way pregnant women in developing nations, and their counterparts who live in the developed nations respond to pregnancy. These factors also play a role in their experiences and perceived satisfaction from antenatal clinics. In a descriptive type of study to find out the attitude of the women towards utilization of antenatal care facility in Peshwar et al. (2002) found that proximity to the antenatal clinic was an important determinant of attendance. Sultana and Ahemd (2002) in their study with expectant Pakistani mothers also found that proximity to an antenatal clinic played a significant role in attendance,

with only those living close to such a clinic utilizing its facilities. But a South African study (Myer and Harrison, 2003) found that, despite the widespread availability of free antenatal care services, most women in rural South Africa attend their first antenatal clinic late in pregnancy and fail to return for any follow up care, potentially leading to avoidable perinatal and maternal complications. Culture is another factor that plays a role in determining attendance. Petrou et al. (2001), in their U.K. study found that Women of Pakistani origin made 9.1% fewer antenatal visits than women of white British origin. Brieger et al. (1994) found that although a functioning government maternity center in the Yoruba community in Nigeria offered a full range of antenatal and delivery services, most of the women did not register for antenatal care until their sixth month of pregnancy or later, and 65% delivered at home. Addai's (1998) study in Ghana revealed that the use of maternal health services tend to be shaped mostly by level of education, place of residence, region of residence, occupation, and religion. There also seems to be lack of information in women on the importance of attending antenatal clinic, a Tanzanian study by Mlay et al. (1994) found that most of the women did not know when in the course of pregnancy they should start attending antenatal clinics.

Cost appears to play a pertinent role in antenatal clinic attendance in developing nations. This is reflected in a study carried out in Zimbabwe by Murira et al. (1997). They note that the major problem limiting access to ANC was lack of money to pay for the booking. Other problems mentioned by the women were ignorance regarding the best time to book, lack of privacy, and insufficient staff at the clinics. Cost is a variable that is pertinent not only in the developing nations, but also in the developed ones. Michie et al. (1990) in their U.K. study found that the woman's "cost-benefit" judgement was an important predictor of antenatal clinic attendance. Widespread breakdowns in the Chinese village-level primary health care network, for example, have led village women to express a profound lack of confidence in local health services (Wong et al. 1995). While an Australian study found factors contributing to dissatisfaction included long waiting times, staff seeming rushed, and lack of continuity of caregiver (Laslett et al., 1997).

Social support has been identified to play a major role in antenatal clinic attendance. Many studies in western countries have shown that persons who have a high level of social support are likely to have better health behaviours, including use of preventive health services, than those who have low support. In a study by Jirojwong et al. (1999) conducted in Hatyai, Thailand, relationships between various measures of the 177 postpartum women's social support and their use of antenatal clinics were assessed. Their findings indicate that less than 10% of the women studied identified health personnel as providing support. The authors reason that the Thai

extended family by its very nature generates large numbers of supporters.

Although, there has been only a few studies carried out in Zambia, like in other parts of the world, antenatal clinic attendance is recognized as an important preventive mechanism employed to minimize potential pregnancy-related complications. The occurrence of such problems usually leads women to seek traditional assistance or modern medical advice from established health institutions. The decision to seek assistance, however, is not only made by the expectant mother herself but also by different parties related to the family or neighbourhood, including village chiefs. According to the Zambia District Health Services (ZDHC), the proportion of women attending antenatal clinics increased during the period 1992 – 1996. In 1996, 96.2 per cent of women received antenatal care services. More women received antenatal care from midwives or nurses than ever before, while others seek the assistance of doctors, traditional birth attendants, or traditional healers (Nsemukila et al., 1998)

Nsemukila et al. (1998) also report that the benefits of attending antenatal clinics were generally well perceived from their Focus Group Discussions with Zambian men and women. The quality of knowledge is reportedly higher for older women, possibly due to previous experiences. Their study also demonstrates a clear link between antenatal clinics attendance and socioeconomic status (as measured by women's education, husband's education, and sources of drinking water). Age was another factor that appeared to play a role in antenatal clinic attendance. The younger (12 – 19 years) and the older (40 – 44 years) women were less likely to attend antenatal clinics than those falling in the age range of 25 – 29 years. Marital status also seems to play a crucial role in determining attendance. Single and widowed women were less likely to attend antenatal clinics than their married counterparts.

Reasons for non-attendance have also been explored in the Nsemukila et al. (1998) study. The authors report: service-related reasons, which include: long distance from the clinic, transport problems, nurses being perceived as not being friendly and insufficient female staff at the clinics, and client-oriented reasons, which include: laziness or ignorance of the benefits of antenatal care, and economic factors.

The foregoing review suggests that there are several psychosocial risk factors that need to be considered to ensure a safe pregnancy and delivery, and psychosocial interventions have proven to be beneficial in providing comprehensive antenatal care. As expectant mothers do not fall into a homogeneous group, attitudes toward, and perception of the effectiveness of antenatal care varies. This is also the case when examining their subjective experiences of antenatal clinic visits, and pregnancy as a whole.

There clearly is a need to look at the Zambian context closer, and examine the factors that determine antenatal clinic attendance. The current study attempts to fill in this void by exploring certain biological, psychological, social and environmental factors that may help determine whether or not an expectant mother visits an antenatal clinic, whether she will come for a revisit, and whether she will come to the clinic / hospital for the delivery. The aim of this study was to explore satisfaction with care in women attending Zambian Antenatal clinics.

METHODOLOGY

The study was conducted at the five antenatal clinics under the Lusaka Urban District Health Medical Team (LUDHMT). The clinics were selected in consultation with the LUDHMT and included clinics in low density and high-density areas in Lusaka.

Sample

Data was collected from of 194 expectant mothers at the five antenatal clinics in Lusaka. The criteria for inclusion were expectant mothers in the age group of 16- 41 years who were willing to be interviewed. Information was also collected from the sisters-in-charge and the midwives at the clinics.

Study Design

This is a descriptive cross sectional study conducted in a developing country.

Semi-structured interviews were conducted with the expectant mothers at the clinics. Focus group discussions were also carried out with a small group of expectant mothers, sisters-in-charge and the midwives at the five clinics.

Instrument

A semi-structured interview schedule was used to collect the data from the expectant mothers, and discussion guides were used for focus group with expectant mothers and midwives. The interview schedule was piloted with expectant mothers in one of the clinics and appropriate changes were made.

Procedure

An appointment was made at each clinic and a convenient time for the interviews was agreed in consultation with the sisters-in-charge of the antenatal clinic.

The expectant mothers who were at the clinic waiting for their routine antenatal check up were randomly requested to be interviewed. Assurance about confidentiality was maintained at all times. The participants were also informed that there were no consequence for failing to participate, and that they were free to withdraw at anytime.

The personal data of the participants were obtained from their clinic registration cards.

The expectant mothers were individually interviewed in the privacy of a cubicle, and the interview lasted for about ten minutes.

Guidelines for the focus group discussions (FGDs) with the

expectant mothers and midwives were drawn up from the preliminary data collected from the interviews. A series of FGDs were held with the expectant mothers at the five clinics. To recruit participants for the focus group with midwives and sisters-in-charge of the antenatal clinics, invitations were sent out to nine LUDHMT Centres in the city, and to the Head Office. Each centre was requested to nominate two participants for the FGDs. The expectant mothers were invited to take part in the FGDs after they had completed their routine antenatal check up. Nineteen participants were nominated from the respective clinics. The participants were randomly divided into two groups and FGDs were held with both the groups. The guidelines were used to stimulate discussions. The FGDs were tape recorded after obtaining informed consent from the participants. Each FGD lasted for about ninety minutes.

RESULTS

A total of 194 women took part in the study with an age range of 16 to 41 years. The mean age of the sample was 24.5 (SD 2.8) and for 74 women (38%) this was their first pregnancy. Family size varied from 1 child (27.8%) to 5 children (3.1%). The women had a median of 9 years schooling (inter quartile range 7-11 years).

The majority of the women reported that they were satisfied with care with 98% agreeing that the clinic was helpful. The physical aspects of the clinic were considered to be satisfactory, 55% of women reported being able to find a seat and 43% reported that the toilet facilities were satisfactory. Ninety nine percent agreed that they would come for future appointments. Reported satisfaction with nursing care and information provision was also high but a higher proportion of women failed to respond to these questions (Table 1).

Results from Focus group discussions

Focus groups were held in 5 clinics with between 8 and 9 women in each group. The facilitator worked to a protocol formatted earlier. For the current report the transcripts were explored for evidence that women attending the clinics were able to discuss their concerns and that they were satisfied with the provision of care. Themes that were examined for this report were about feelings towards the nursing staff in the clinic and barriers to communication.

There was evidence that women were reluctant to share concerns about pregnancy and birth with the clinic staff. For example, pregnant women said, *"Even if I had other concerns bothering me, I wouldn't be able to continue and tell such a nurse. You find that people go back home without ever telling the nurse the kind of problems or concerns they have. That's the end of it."* And this reluctance may reflect fear of how questions might be received.

Although several participants in the focus groups acknowledged that many nurses were kind but some experienced harsh treatment from some nurses. This

seemed to colour the view of the process of care leaving women feeling vulnerable. According to one of the participants,

"Sometimes when we come to the clinic we find good-hearted nurses; but others are rough even the way they examine you is painful. (laughter from group) If you complain about that they throw away your file (antenatal book). Yes they are really rough in the way they examine us, if you complain they will throw away your file and start attending to the next person in the queue". Thus it can be said that there probably existed a feeling among the participants that it was the responsibility of the patient to avoid upsetting nursing staff and therefore not risking poor care.

There was a prevailing feeling that although some nursing staff were kind, the prevailing impression was that nurses were likely to be rude and outspoken and that this caused women to be wary of asking questions or seeking advice. This was one of the responses *"Okay, speaking for myself I would say we find nurses of different personalities here. Some are very rude to us. You could have a question, which you ask them hoping to get an answer but they come back to you with a very rude answer that makes you feel bad. Sometimes you feel embarrassed in front of other people. As I said earlier, some are good, they make you feel welcome and you relax in their presence. You feel they are really helping you, as nurses should. You feel satisfied with the service"*.

Inequality in the power relationship and the perception of the volatility of the nursing staff clearly impact on the communication process between staff and patients. This was seen in many of the responses. For example, according to one of the participants, *"To be honest with you one wouldn't even have the guts to talk to the nurses about that. You wouldn't dare do that. It would be a very hard thing to do. You wouldn't want to risk their reaction to such a complaint"* and another said, *"Then at other times, like last time I came on the 17th and they told me that I should come to the clinic if I didn't feel well. So going by their advice, I came when I had stomach pains but they shouted at me"*. There was also evidence that patients did not feel confident in disclosing information to the nurse. This may be reflecting in this response: *"You know, you know we differ. I don't know why we hide certain things from them. Sometimes we feel shy to tell the nurse or the doctor the truth"*.

The nature of the relationship between the nurses and their patients means that opportunities for health promotion are lost. It may also mean that at times such fear may put the health of the pregnant woman at risk. *"Even when you are having pains, you just go back home without telling them about it because you are scared of being shouted at"* was the concern of a participant.

In one of the clinics, the women seemed rather more satisfied with the nurses' care, perceiving them to be very competent. This was evident from some of their

Table 1. Satisfaction with care

Question	Agree	Don't know / Disagree	Did not respond
The process was simple	185 (95%)	8 (4%)	1 (0.5%)
Administrative staff members were helpful?	183 (94%)	7 (4%)	4 (2%)
The waiting room was pleasant	173 (89%)	21 (11%)	0 (0%)
I was able to find a seat	107 (55%)	79 (41%)	8 (4%)
The toilet facilities were good?	82 (43%)	108 (57%)	4 (2%)
I found the nurses pleasant	170 (88%)	8 (4%)	16 (8%)
I found nurses helpful	173 (89%)	3 (2%)	18 (9%)
I found clinic useful	190 (98%)	0 (0%)	4 (2%)
The nurse gave me information	175 (90%)	8 (4%)	11 (6%)
I will come for future appointments	192 (99%)	0 (0%)	2 (1%)
I will come to the hospital to deliver	191 (98.5)	2 (1%)	1 (0.5%)

The mean time that the women reported waiting was 3.6 hours with a range of 1 to 6 hours. Despite the lengthy waiting time women appeared to committed to clinic attendance. Of the 119 women with children, only 4 (3.4%) had not attended in their previous pregnancy. The main reason women reported attending was to check on their health (42%) though only 14 (7.2%) considered that they had health problems.

responses such as, *"What I can say is that they welcome us very well, they examine us very well and we go back home very well satisfied with their service"*, *" So, I am happy because the antenatal examinations are done in a friendly atmosphere. They receive and treat us very well here"*; *"The service is good. They help us very well because when we come here and tell the nurses that you are not feeling well they attend to you very well. They give us medicine and tell us about how to take care of ourselves"*. The nurses here were perceived as being interested in the health of the women and that the patients feel happy to discuss their health concerns. It may be that the nurses in this clinic are better trained or feel more confident in their ability to help the women in their care.

DISCUSSION

This study examined satisfaction with care in women attending Zambian Antenatal clinics. The majority of the women reported that they were satisfied with care with 98% agreeing that the clinic was helpful. The physical aspects of the clinic were considered to be satisfactory, 55% of women reported being able to find a seat and 43% reported that the toilet facilities were satisfactory. Ninety nine percent agreed that they would come for future appointments. The mean time that the women reported waiting was 3.6 hours with a range of 1 to 6 hours. Despite the lengthy waiting time women appeared to committed to clinic attendance. Of the 119 women with children, only 4 (3.4%) had not attended in their previous pregnancy. These findings were encouraging as some of the previous studies (e.g, Ndyomugenyi et al.,1998) carried out in Uganda observed that antenatal

care attendance was irregular and few women knew that the purpose of attending antenatal care was to monitor both the growth of the baby and the health status of the woman.

Ndyomugenyi et al. (1998) reported that health seeking behaviour was influenced by several factors, including the perceived high cost of antenatal care services, of conducting a delivery and treatment, and perceived inadequacy of services provided by the formal health system. Inadequacy of formal health services was perceived by users to be partly due to understaffing and to irregular supply of essential drugs. In our study, the main reason women reported attending antenatal clinic was to check on their health (42%) though only 14 (7.2%) considered that they had health problems.

Focus group discussions found that there probably existed a feeling among the participants that it was the responsibility of the patient to avoid upsetting nursing staff and therefore not risking poor care. Inexperienced mothers were particularly vulnerable and this comment suggests that the clinic culture encourages the collusion between nurses and more experienced or confident women to reinforce feelings of uncertainty in "novices". These concerns may reflect a lack of staff moral due to excessive demands. : This findings may be in line with a UK study by Cliff and Deery (1997) where majority of women felt that antenatal classes were too technical and did not address emotional and psychological issues.

Interesting the suggestion made was that male nurses might be more caring was received with much support by other members of the focus group perhaps illustrating how disillusioned the patients felt about the relationship with the clinic staff.

Women also seemed anxious to follow the advice that they were given but where information was unclear or

absent they were not willing to seek clarification. This may be explained by the findings of an Australian study that age, education, and socio-demographic variables therefore appear to play a significant role in antenatal clinic attendance (Lumley and Brown 1993).

CONCLUSION

The results of the study suggest that although women are positive about benefits of clinic attendance many feel intimidated by the process and this may impair communication and threaten the quality of care that they receive. Women may be reluctant to disclose dissatisfaction with care in structured surveys. Both the focus groups and the survey revealed that women did not like the physical environment of the clinic. Crowding and pressure of work in some clinic may cause stress to staff, which in turn means that they are less sensitive to the needs of their patients. In the focus groups embarrassment and fear were found to inhibit communication with health practitioners.

RECOMMENDATIONS

It is important for health professionals to ask pregnant women about their feelings related to the current pregnancy, childbirth, and future motherhood, and to give women who express fears an opportunity to discuss them, paying special attention to primiparas and to multiparas with negative experiences of earlier pregnancies (Melender, 2002). The inclusion of women's voices in the objectives of safe motherhood programmes is necessary to better serve women's needs (Grossmann-Kendall et al., 2001). The family perspective implies knowing both the pregnant woman and her partner in terms of the pregnancy, the birth and a new parenthood. Humane, scientifically based perinatal care can be developed by innovations from these findings, especially considering the multidimensional role of the parent groups (Bondas, 2002). Culturally specific changes needed in the content and mode of antenatal education.

REFERENCES

- Addai I (1998). Demographic and sociocultural factors influencing use of maternal health services in Ghana. *Afr. J. Reprod. Health.* 2(1):73-80
- Adler R, Hayes M, Nolan M, Lewin T, Raphael B (1991). Antenatal prediction of mother-infant difficulties. *Child Abuse Negl.* 15 (4):351-61
- Al-Nasser AN, Bamgboye EA, Abdullah FA (1994) Providing antenatal services in a primary health care system. *J. Comm. Health.* 19 (2):115-23
- Bondas T (2002). Finnish women's experiences of antenatal care. *Midwifery* 18 (1):61-71
- Brieger WR, Luchok J, Eng E, Earp JA (1994) Use of maternity services by pregnant women in a small Nigerian community. *Health Care Women Int.* 15(2):101-10
- Cliff D, Deery R (1997) Too much like school: social class, age, marital status and attendance/non-attendance at antenatal classes. *Midwifery.* 13(3):139-45
- Forde, R., Malterud, K., & Bruusgaard, D. (1992). Antenatal care in general practice. 1: A questionnaire as a clinical tool for collection of information on psychosocial conditions. *Scand. J. Primary Health Care.* 10 (4):266-271
- Grossmann-Kendall F, Filippi V, De Koninck M, Kanhonou L (2001). Giving birth in maternity hospitals in Benin: testimonies of women. *Reproductive Health Matters,* 9 (18), 90-98
- Ho I, Holroyd E (2002). Chinese women's perceptions of the effectiveness of antenatal education in the preparation for motherhood. *J. Adv. Nurs.* 38(1):74-85
- Jirojwong S, Dunt D, Goldsworthy D (1999). Social support and antenatal clinic attendance among Thai pregnant women in Hatyai, a city in southern Thailand. *Journal of Advanced Nursing,* 29 (2), 395-406
- Josefsson, A, Angelsioo L, Berg G, Ekstrom CM, Gunnervik C, Nordin C, Sydsjo G (2002). Obstetric, somatic, and demographic risk factors for postpartum depressive symptoms. *Obstetrics and Gynecol.* 99 (2), 223-8
- Laslett AM, Brown S, Lumley J (1997). Women's views of different models of antenatal care in Victoria, Australia. *Birth.* 24 (2):81-9
- Lumley, J., & Brown, S. (1993). Attenders and nonattenders at childbirth education classes in Australia: how do they and their births differ? *Birth,* 20 (3), 123-30
- Melender HL (2002). Experiences of fears associated with pregnancy and childbirth: a study of 329 pregnant women. *Birth,* 29 (2), 101-11
- Michie S, Marteau TM, Kidd J (1990). Cognitive predictors of attendance at antenatal classes. *British Journal of Clinical Psychology,* 29 (2):193-9
- Mlay, R, Massawe S, Lindmark G, Nystrom L (1994). Recognition of risk factors in pregnancy among women attending antenatal clinic at Mbagala, Dar es Salaam. *East Afr. Med. J.* 71(9):562-6
- Murira N, Munjanja SP, Zhanda I, Nystrom L, Lindmark G (1997). Effect of a new antenatal care programme on the attitudes of pregnant women and midwives towards antenatal care in Harare. *Cent. J. Med.* 43(5):131-5
- Myer L, Harrison A (2003) Why do Women seek Antenatal Care late? Perspectives from Rural South Africa. *J. Midwifery Women Health* 44(8):268-272
- Ndyomugenyi R, Neema S, Magnussen P (1998). The use of formal and informal services for antenatal care and malaria treatment in rural Uganda. *Health Policy Plan.* 13 (1):94-102
- Nsemukila BG, Phiri DS, Diallo HM, Banda SS, Benaya WK, Kitahara N (1998). A Study of Factors Associated with Maternal Mortality in Zambia. Lusaka: UNFPA
- Pajulo M, Savonlahti E, Sourander A, Helenius H, Piha J (2001). Antenatal depression, substance dependency and social support. *Journal of Affective Disorders,* 65 (1), 9-17
- Petrou S, Kupek E, Vause S, Maresh M (2001). Clinical, provider and sociodemographic determinants of the number of antenatal visits in England and Wales. *Soc. Sci. Med.* 52(7):1123-34
- Reid AJ, Biringer A, Carroll JD, Midmer D, Wilson LM, Chalmers B, Stewart DE (1998). Using the ALPHA form in practice to assess antenatal psychosocial health. *Antenatal Psychosocial Health Assessment. Can. Med. Assoc. J.* 159 (6), 677-84
- Renkert S, Nutbeam D (2001). Opportunities to improve maternal health literacy through antenatal education: an exploratory study. *Health Promot. Int.* 16 (4):381-388
- Stanley G, Clayton TLT, Lewis CBE, Pinker GD (1985). *Obstetrics by ten teachers.* London: Butler & Tanner Ltd.
- Sultana A, Ahmed S (2002). Attitude of women of NWFP towards antenatal care. *Journal of Ayub Medical College Abbottabad,* 14 (2):14-8
- Turan JM, Nalbant H, Bulut A, Sahip Y (2001). Including expectant fathers in antenatal education programmes in Istanbul, Turkey. *Reproductive Health Matters,* 9 (18):114-25
- Williamson S, Thomson AM (1996). Women's satisfaction with antenatal care in a changing maternity service. *Midwifery,* 12 (4):198-204

Wong GC, Li VC, Burris MA, Xiang YP (1995). Seeking womens voices - setting the context for womens health interventions in 2 rural counties in Yunnan, China. *Social Science and Medicine*, 41(8):1147-1157