

Perception of urgency to seek treatment for risk medical disorders in pregnancy

Tsimbiri PF

Egerton University, Faculty of Health Sciences, P. O. Box 536 Egerton 20115, Kenya. Email: tsimbiri2005@yahoo.com

Abstract

Background: Risks of mortality for women and their babies are highest at the time of birth and statistics show that approximately 536,000 women of reproductive age die each year due to pregnancy-related complications. Over 20 million girls and women suffer from morbidities arising from childbirth annually with more than half of these occurring in Africa. The key to reducing maternal deaths not only lies in the treatment of the main causes but in preventing and providing quality and timely health care to pregnant women.

Objective: This study sought to assess the perception of pregnant women on the urgency to seek treatment if symptoms of risk medical disorders of pregnancy were observed.

Methodology: This was a prospective study where 397 expectant clients were selected from those attending antenatal services at Njoro, Nessuit, Huruma and P.C.E.A health centers in Njoro Division, Nakuru County in Kenya.

Results: A high percentage of women attending antenatal clinics had good perception on urgency to seek treatment in regard to obstetric emergencies and fetal wellbeing. On a scale of 1 to 4 where 4 is very urgent need and 1 not urgent the scores were 2.81 for reduced fetal movement, 3.44 for lack of fetal movement, 3.71 for antepartum haemorrhage and 3.49 for premature rupture of membranes. They however had poor perception on urgency to seek treatment relating to medical disorders in pregnancy with scores of 2.19 for anaemia, 1.93 for deep venous thrombosis, 1.36 for diabetes mellitus, 2.60 for pre-eclampsia and 3.04 for urinary tract infection symptoms.

Conclusions: Antenatal education is vital and need to be delivered by qualified personnel in small focused groups to allow clients knowledge acquisition and behaviour modification. The health providers should be equipped with education skills especially for adult learners to achieve this. More research is required to understand the optimal learning environment that will have significant impact on outcome of the pregnancy.

Keywords: Perception, Treatment, Risk medical disorders, Pregnancy

Introduction

Every minute a woman dies globally and half of these deaths occur in Africa due to pregnancy related causes (1). Despite improved health care systems, many women in the developing world and especially sub-Saharan Africa lack access to maternal health care which is one of the targets of Millennium Development Goal 5 (MDG 5). Risks of mortality for women and their babies are highest at the time of birth where statistics show that approximately 536,000 women of reproductive age die each year due to pregnancy-related complications (1). Of these deaths, 99% occur in low-income countries, where fertility rates are higher and a woman's life time risk of dying during pregnancy and childbirth is over 400 times higher than in developed countries (2). More than 60 million women globally deliver at home without any skilled health care and about 4 million babies die within the first month of life (neonatal period) while 3 million end up as still births (3-5). While maternal mortality has declined since 1990, by 26% in Latin America and

20% in Asia, it has only fallen by 2% in sub-Saharan Africa (6). The Maternal Mortality Ratio (MMR) in Kenya during the 2008/9 Kenya Demographic Health Survey (KDHS) was estimated at 488 per 100,000 live births, which, though not statistically significant, was higher than the figure of 414 per 100,000 live births, which was reported in the 2003 KDHS (7,8). It is estimated that 75% of the maternal deaths that occur in the world would be prevented if adequate interventions and access to health care was put in place (10,11).

Access to quality maternal care is viewed as one of the pillars in reducing maternal and neonatal mortality. MDG 5 aims at reducing maternal mortality by three quarters between 1990 and 2015 and providing universal access to reproductive health care by 2015 (12). The percentage of births attended by skilled health workers remains low in developing countries, for example, in Southern Asia (45%) and sub-Saharan Africa (46%) – the two regions with the greatest number of maternal deaths (13). In Kenya, only 40% of pregnant women attend antenatal care services and even less deliver in hospitals under care of qualified

health providers (7). Although adequate and efficient management of pregnancy and its complications are crucial in reducing maternal and neonatal mortality, access and quality health care play a significant part. For this to be affected, pregnant women must appreciate the symptoms associated with risk disorders and present early for treatment. Most pregnant women and the general public however have limited information on the symptoms of risk disorders and urgency required for early presentation so as to minimize complications and maternal mortality. The aim of this study was to assess the perception of pregnant women seeking antenatal service on the urgency required to seek treatment if symptoms associated with medical disorders were observed.

Materials and Methods

This was a prospective study. A study sample of expectant clients was selected from those attending antenatal services at Njoro, Nessuit, Huruma and P.C.E.A health centers in Njoro division Rift Valley Province. The sample size was obtained using the formula as provided by (Mugenda and Mugenda, 1999) and in order to have 95% confidence limits of 5% maximum error of the estimate. A sample size of 384 clients was calculated to be used in this study. For a no-response expectation, the sample size was increased to 400 clients. A total of 400 clients were recruited between April 2012 and July 2012. Four trained research assistants, who consisted of two clinical and two medical officers, were recruited and trained to assist in data collection. Data collection was done by filling in a structured questionnaire and analyzed using Statistical package for Social Scientist version 17.

Inclusion criteria: All women attending antenatal care at any of the four centers.

Exclusion criteria: Clients who refused to consent.

Ethical considerations: Permission to undertake the study was requested and granted by Egerton University Ethics and Research Committee and also the management of the health centers. The clients were informed of nature of study and that the information obtained was meant for research only and confidentiality would be ensured. The clients who consented signed a consent form.

Results

Socio-demographic parameters: The age distribution shows that 65% of the participants were between the ages of 20 and 29 years. About 1% of the participants were between 15 and 16 years of age with minimum age of 15 years while 1.3% were above 40 years with

maximum age of 45 years. The structure therefore had few teenage pregnancy compared to national figures of 18% and 17% for Rift valley and Kenya respectively according to KDHS (2009) (9).

Most of the participants (86.6%) were married and 13.3% were single. Participants who had attained upper primary education were 52.6% while those in secondary were 36.8%. Only 9.1% and 1.5% had attained tertiary and primary education respectively (Table 1). Compared to KDHS (2009) where 19% of the women had no education, the women attending antenatal services in Njoro Division have attended some formal education. Women's education is associated with increased antenatal coverage with women with highest education more likely to receive ANC from a doctor than those without. KDHS (2009) (9) also noted that one quarter of women with no education get no antenatal care at all.

Table 1: Socio demographic characteristics (age, marital status and level of education)

		Frequency (%)
Age cluster	15-16	4 (1.0)
	17-19	59 (14.9)
	20-24	144 (36.3)
	25-29	116 (29.2)
	30-34	50 (12.6)
	35-39	19 (4.8)
	40-45	5 (1.3)
	Totals	397 (100)
Marital status	Married	344 (86.6)
	Single	52 (13.1)
	Widowed	1 (0.3)
	Totals	397 (100)
Level of education	Lower primary	6 (1.5)
	Upper primary	209 (52.6)
	Secondary	146 (36.8)
	Tertiary	36 (9.1)
	Totals	397 (100)

Majority of the participants 42.6% earned a salary of less than 5,000 Kenya shillings (US\$62) per month while 35.3% have no formal source of income. According to KDHS 2009, it has been noted that one in seven women with lowest wealth quartile does not get any antenatal care although many of the women had no formal form of income attended antenatal care service. The education profile in this community is commendable although there is a need for the women to strive for higher education for maximum benefits.

Previous pregnancy outcomes (parity): At the time of entry into the study, majority (49.3%) of clients were between 21 to 28 weeks gestation. Of the participants, 36.3% were primi-gravidae, 27% were para 1, 18.4% para 2, 8.1% para 3, and 5.0% para 4. Those above para 5 were 5.4% with 7 as highest parity.

Table 2: Gestation and previous pregnancies

	Categories	No. (%)
Gestation cluster	12/40 to 16	22 (5.5)
	17/40 to 20/40	47 (11.8)
	21/40 to 24/40	97 (24.4)
	25/40 to 28/40	99 (24.9)
	29/40 to 32/40	71 (17.9)
	33/40 to 36/40	61 (15.4)
Parity	0	144 (36.3)
	1	107 (27.0)
	2	73 (18.4)
	3	2 (8.1)
	4	20 (5.0)
	5 and above	21 (5.4)
Number of abortions	0	373 (94)
	1	20 (5)
	2 and above	4 (1.1)
Gravidity	1	145 (36.5)
	2	98 (24.7)
	3	70 (17.6)
	4	42 (10.6)
	5	8 (4.5)
	6 and above	24 (6.1)
	Total	397 (100)

The participants who had no history of abortions were 94.0%, while 5.0% had one episode of abortion, and 1.1% had history of more than one abortion with highest at 5. In regard to gravidity, 36.5% were nulliparous while 42.3% were between gravida 2 and 3. Only 10.6% were gravida 5 and above with highest at gravida 8 (Table 2).

Perceptions of urgency to seek medical attentions for the given symptoms: Asked on how soon they would seek medical attention if they felt easily tired, the majority 78.8% indicated that this was not urgent while only 4% felt it was very urgent. The mean response was 1.36 i.e. most felt it was either not urgent or fairly urgent. On awareness of heart beat, most women 39.8% felt that seeking medical care was not urgent while 22.7% felt it was fairly urgent and only 17.4% felt it was very urgent to seek treatment with mean of 2.15.

In regard to fainting 19.9% thought it was not urgent to seek medical attention while 36% felt it was very urgent. The mean response was 2.76 i.e. most felt it was either fairly urgent or urgent. Majority of the women 79.8% felt having a dizzy spell was not urgent to seek medical treatment, with mean response of 2.11.

Table 3: Response to medical disorders in pregnancy symptoms

Responses	Not urgent No. (%)	Fairly urgent No. (%)	Urgent No. (%)	Very urgent No. (%)	Mean value
Getting tired easily	313 (78.8)	42 (10.6)	26 (6.5)	16 (4.0)	1.36
Can feel the heartbeat	158 (39.8)	90 (22.7)	80 (20.2)	69 (17.4)	2.15
Fainting	79 (19.9)	79 (19.9)	96 (24.2)	143 (36)	2.76
Dizzy spells	16 (4.0)	92 (23.2)	83 (20.9)	61 (15.4)	2.11
Painful calf muscles	193 (48.6)	82 (20.7)	80 (20.2)	42 (10.6)	1.93
Taking lots of water	321 (80.9)	34 (8.6)	23 (5.8)	19 (4.8)	1.35
Thirstiness	317 (79.8)	38 (9.6)	21 (5.3)	21 (5.3)	1.36
Face swelling	95 (23.9)	117 (29.5)	93 (23.4)	92 (23.2)	2.46
Fits	25 (6.3)	30 (7.6)	84 (21.2)	258 (65)	3.45
Confusion	214 (53.9)	69 (17.4)	62 (15.6)	52 (13.1)	1.88
Persistent headache	65 (16.4)	63 (15.9)	65 (16.4)	204 (51.4)	3.03
Painful passage of urine	61 (15.4)	23 (5.8)	76 (19.1)	237 (59.7)	3.23

In regard to painful calf muscles 48.6% felt it was not urgent, 20.7% felt it was fairly urgent and 10.6% felt it was very urgent to seek treatment with a mean of 1.93. Majority of the participants 80.9% felt it was not urgent to seek medical attention when taking a lot of water with only 4.8% who felt it was very urgent and a mean of 1.35. Majority of the participants 79.8% felt it was not urgent to seek medical attention for thirstiness with only 5.3% who felt it was very urgent with a mean of 1.36.

There was varied response on how soon they would seek medical attention if they had face swelling with 23.2% who said it was very urgent and a mean of 2.46. Most women 65.0% indicated they would very urgently seek medical attention if they had fits, with a mean response of 3.45. A few women 13.1% indicated they would very urgently seek medical attention for confusion 15.6% urgently and majority 53.9% felt it was not urgent. The mean response was 1.88. Most women 51.4% indicated they would very urgently seek medical attention for fever. The mean response was

3.03. Most women 59.7% indicated they would very urgently seek medical attention for painful passage of urine. The mean response was 3.23 (Table 3).

Majority 71% of the clients indicated that they would seek medical attention very urgently if they experienced passage of fluid through the birth canal and 16.1% urgent. The mean response was 3.49. Majority 85.1% indicated they would very urgently seek medical attention if they had bleeding from birth canal with mean response of 3.71. Most women 42.1% indicated they would very urgently seek medical attention. 20.9% urgently and only 13.4% said fairly urgently and 23.7% felt it was not urgent to seek treatment for reduced fetal movements. The mean response was 2.81. Of the women 69.8% indicated they would very urgently seek medical attention for lack of fetal movements with a mean response was 3.44. From these results the clients appreciated the urgency to seek treatment for symptoms related to obstetric emergencies and fetal wellbeing as shown by scores of more than 3.0 (Table 4).

Table 4: Response to obstetric emergencies symptoms and fetal wellbeing

	Not urgent		Fairly urgent		Urgent		Very urgent		Mean value
	Freq	(%)	Freq	(%)	Freq	(%)	Freq	(%)	
Passage of fluid from birth canal	36	9.1	15	3.8	64	16.1	282	71	3.49
Bleeding from the birth canal	23	5.8	9	2.3	27	6.8	338	85.1	3.71
Reduced fetal movement	94	23.7	53	13.4	83	20.9	167	42.1	3.44
Lack of fetal movement	40	10.1	23	5.8	57	14.4	277	69.8	3.0

Discussion

This study shows a high percentage of women attending antenatal clinics had good perception in regard to obstetric emergencies and fetal wellbeing which in part could be attributed to the fact that they found them alarming and many prompt women to seek medical intervention early. Most women felt it was not urgent to seek treatment for symptoms related to chronic diseases i.e Diabetes mellitus, anaemia, pre-eclampsia and deep venous thrombosis. They however would urgently seek treatment for fits and urinary tract infections. Studies elsewhere to assess knowledge of women on health risks in pregnancy showed limited knowledge. In one study, the authors found that over a quarter of the women could not name any health risk (16). In this study, it was noted that first pregnant women especially in adolescents carries great health

risk which are unknown by the mothers (17). This is replicated in other studies where women with chronic medical disorders had limited knowledge on risks of their conditions in pregnancy (18,19). A number of women indicated to have limited knowledge of their pregnancy and therefore will seek treatment late for symptoms of emergency obstetrical conditions (20). A study on women with diabetes mellitus in Nepal (21) showed poor knowledge of symptoms with an average 25% who knew of some symptoms and only 4% obtained this information from health care providers. In another study on pre eclampsia, the authors noted that the women had limited information on the symptoms and dangers of the disease and the health professionals provided little information (23). These findings are contrary to one study in a hospital based study done among diabetic patients in Malaysia, it was found that 90% had good knowledge (22) of their condition and

risks it poses. This could be due to the fact that most of these clients had already been diagnosed and most probably informed and counseled on their condition in the course of management.

One way of reducing maternal mortality and morbidity is to empower women through education to ensure early recognition of symptoms and prompt presentation for medical care. A study was conducted in Tanzania on value of education and counseling on clients on need for hematinic. The author noted that this did not significantly add value to the outcome on those who did use or never used the supplements (25). In another study in India (19), the authors showed an increase in knowledge on hypertensive disease of pregnancy by applying antenatal package to pregnant women who visited selected hospitals in Mangalore India from the previous low pretest knowledge. The authors noted that women who had some knowledge presented for review much earlier than those with limited information. Among the WHO recommendations of focused antenatal care is health promotion and disease prevention through educating women on how to recognize danger signs and what to do if the signs are observed (26).

Education for women attending antenatal care can be undertaken in various settings. It could be individualized when the client visits the care provider, through class room type where the health care provider gives information to a whole group or through small focus group discussions. In one study in Australia the authors noted that health care professionals who provide education to mothers may not necessarily address the needs of the mothers and most were unable to give advice on areas of improvement and the same authors noted that most expectant women felt what they were taught on is not exactly what they wished to know (27,28). In one literature review series the authors noted that based on different studies, women will prefer small group settings where they can discuss with each other and educator as well as relating the information on their own circumstances (29).

Conclusions and Recommendations

This study shows a high percentage of women attending antenatal clinics had good perception on urgency to seek treatment in regard to obstetric emergencies and fetal wellbeing symptoms. They however had poor perception on urgency to seek treatment in case of symptoms relating to medical disorders in pregnancy that included anaemia, deep venous thrombosis, diabetes mellitus, pre-eclampsia and urinary tract infection symptoms.

It is recommended that antenatal education is vital and needs to be delivered by qualified personnel in small focused groups to allow clients contribute to

knowledge acquisition and behaviour modification. The health providers should be equipped with education skills especially for adult learners in informal settings. More research is required to understand the optimal learning environment that will have significant impact on outcome of the pregnancy.

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