

KNOWLEDGE AND ATTITUDE OF MOTHERS ON RISK FACTORS INFLUENCING PREGNANCY OUTCOMES IN ABEOKUTA SOUTH LOCAL GOVERNMENT AREA, OGUN STATE

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Abstract

Pregnancy outcomes rank among the most pressing reproductive health problems in the world. Factors influencing pregnancy outcomes may include poor nutrition of the woman, child spacing, maternal age (under 15 years and beyond 35 years), inadequate prenatal care, lifestyle behaviours, such as; smoking, alcohol consumption, drug abuse, overweight, obesity and poverty. The study investigated knowledge and attitude of mothers on risk factors influencing pregnancy outcomes in Abeokuta South Local Government Area of Ogun State. One hundred mothers were randomly selected and participated in the study. Descriptive research design was adopted. The instrument used to elicit responses from the respondents was a well-structured questionnaire designed by the researchers. Data was analysed using descriptive statistics such as frequency counts and percentages. Findings showed that only a few mothers 37(37.8%), have knowledge that being pregnant at age 35 years and above could result in giving birth to babies with developmental disabilities such as Down Syndrome. Majority of the mothers 74(75.5%) however are knowledgeable about malnutrition as a risk factor in pregnancy. The attitude of the mothers as revealed in this study showed that majority 59(59.6%) do not see anything wrong in being pregnant on yearly basis. It was therefore recommended that pregnant mothers should see the need for early antenatal care. They should also avail themselves opportunities of attending programmes that would further aid their knowledge and have a change of attitude on risk factors that can influence pregnancy outcomes.

Keywords: Knowledge, attitude, mothers, risk factors and pregnancy outcomes

Background to the study

Most women experience pregnancy and give birth without serious health complications or problems. But pregnancy can be hazardous for a significant proportion of mothers. In 2006, a new maternal mortality working group – which included WHO, UNICEF, UNFPA, The World

Bank, and the United Nations Population Division (UNPD), pointed out that about 500,000 women die from pregnancy related causes each year. It is surprising and not encouraging that in this present age, women are still not knowledgeable on the factors that could affect them and their unborn children negatively which might lead to maternal and infant mortality.

Among the Millennium Development Goals set in the year 2000 was a three-quarters reduction in maternal and infant mortality rates by the year 2015 (UNICEF, 2006). Worldwide, an estimated 515,000 women die of causes related to pregnancy and child birth each year, and their deaths leave one million children motherless (USAID, 2002 & UNICEF 1991). Over 99% of these deaths occur in developing countries.

Factors that may be associated with pregnancy risk factors include; poor nutrition of women, child spacing, maternal age (under 15 years over 35 years), inadequate prenatal care, and lifestyle behaviours, such as; smoking, alcohol consumption, drug abuse, unsafe sex, overweight, obesity and poverty (Wardlaw and Kessel, 2002). A study by Kazaura, Kidanto and Massawe (2006), showed that several risk factors influence neonatal mortality. These include; parity, maternal age, race, marital status, smoking, birth weight, gestation age, labour complication, antenatal care, previous unfavourable outcomes such as, still birth, neonatal deaths, maternal morbidity malaria and HIV infection and poor socio-economic conditions. Poor nutritional status during pregnancy has been associated with irreversible damage to the infant brain and central nervous system leading to poor brain development and intelligence. Evidence exists that, obesity and non-communicable disease such as cardiovascular disease start early in childhood (Wardlaw & Kessel, 2002).

The major negative pregnancy outcomes include neonatal mortality, low birth weight, still births, malformations of the baby and even death of the mother due to difficulties during delivery (Wardlaw & Kessel, 2002). It is estimated that, about four million out of 130 million infants born worldwide die during the first four weeks of life and more than three million are stillbirth (Kazaura et al., 2006). Recent estimates indicate that, about 98% of the world neonatal deaths and almost an equal proportion of stillbirth

are from developing countries, with the highest proportion occurring in sub-Saharan Africa (Kazaura et al., 2006).

It is surprising and not encouraging that in this present age, women are still not knowledgeable on a factor that can affect them and their unborn children negatively which leads to maternal and infant mortality. As a matter of fact, all women should have access to basic maternity care during pregnancy and delivery. This includes antenatal care, clean and safe delivery as well as postpartum care for mothers and infants (WHO 1997). At least 40% of all pregnant women usually experience some type of complication during their pregnancies. About 15% of this complication is potentially life threatening. Such complications can occur in pregnancy, during labour, delivery and postpartum period that require high quality obstetric care (Koblinsky, 1993).

One of the most important functions of antenatal care (ANC) is to offer the woman information about the appropriate place of delivery, given her own particular circumstances and health status. ANC is also an opportunity to inform women about the danger signs and symptoms for which assistance should be sought from a health care provider without delay (WHO 1994).

Likewise in Africa it has been estimated that 63% of pregnant women receive at least one antenatal care visit and 36% of deliveries took place in Health units. Whereas, 60% of deliveries in Western Africa and 56% in Northern Africa respectively took place in Health units (WHO 1997).

The goal for Focused Antenatal Care is to provide timely and appropriate care to women during pregnancy to reduce the Maternal Morbidity and Mortality as well as achieving a good outcome for the baby (MOH 2002).

Mother's knowledge is an important factor in enabling them in attending ANC. Findings from a study by Ladfors, Eriksson, and Mattsson (2001), in a population based study of Swedish, Women's opinions about ante-natal delivery and postpartum care, reported that 81% of porous women remarked that, checking blood and urine samples, fetal rate and measurement of fundal height were the most important procedures in ante-natal care. Mothers have also been reported to be having substantial knowledge on risk factors.

Kibambai (2002), described other factors which keep women away from higher level health facilities as; costs of hospital delivery, unfamiliar practices, inappropriate staff attitudes, restrictions with regard to the attendance of family members before seeking institutional care. Other factors included negative perceptions of the quality care provided, related to bureaucracy, lack of drugs and other supplies, none functioning equipment, absence of doctors especially at night and apparently unfriendly attitudes of

staff towards patients, also referral from one level of care to another was not well organised.

Pregnant women who seek antenatal care early are likely to be cared for and be on prescribed nutrient supplements for a longer duration than those who delay. The delay in seeking antenatal care may be due to out-dated traditional rites and taboos of pregnancy, lack of resources or mere uncertainty.

Teenage pregnancy has not only become a public health issue, but also a media focal point. The rate of teenage births in the United States has fallen since the late 1950s from 96 births per 1,000 women aged 15-19 to 49 births per 1,000 in 2006. Teenage pregnancy and births among girls in their adolescent years has declined and may be explained to a change in trends of marriage. Marriage in teen years is now not as common as it was in the 1950s. In the 1950s, 13% of teens had children without being married, but in 2000 that rate was 79%. In the 1990s, the typical age of first marriage in the United States was 25 for women and 27 for men.

Pregnancy at Advanced Maternal Age

Pregnancy over age 35 is considered a high risk pregnancy because of advanced maternal age. The chances of pregnancy complications (pregnancy induced hypertension, gestational diabetes, preeclampsia), labour complications that require caesarean sections, and genetic problems with the baby (most significantly down syndrome) are all significantly higher for a pregnancy above 35 years.

In the past three decades, an increasing proportion of women have delayed childbearing for educational, social, and economic reasons (Benzies, Tough, Tofflemire, Frick, Faber & Newburn-Cook, 2006). Pregnancy at advanced maternal age is defined as age 35 years or older and is associated with several adverse pregnancy outcomes including preterm birth, low birth weight, still birth, chromosomal defects, labour complications, and caesarean section, it is therefore considered to be a “high risk” pregnancy. Understanding perception of pregnancy risk is important, because it can affect women’s health care use, motivations to seek care, pregnancy and labour decisions, adherence to medical recommendations, and health behaviour.

Malnutrition is one of the most serious health problems affecting children and their mothers in Ethiopia. Undernourished mothers face greater risks during pregnancy and childbirth, and their children set off on a weaker developmental path, both physically and mentally. Undernourished children have lower resistance to infection and are more likely to die from common childhood ailments as diarrhoea diseases and respiratory infections (Infant & Young Child Nutrition Project, 2011).

Educational level, monthly income and nutrition information during pregnancy were identified as important predictors of knowledge of women on nutrition during pregnancy among the study participants in multivariate analysis. Similar study conducted in Malaysia demonstrated that individuals with better nutritional knowledge levels are significantly higher in educational level, nutritional attitude and occupational status. The finding of the study stated that individuals with a higher educational level had better nutritional knowledge (Mitra, Wan, Manan, Affizal and Mohd, 2012).

One of the many decisions made in the household, which has consequences on family wellbeing, is the timing and spacing of children (Bhalotra and van Soest, 2006). The World Health Organization recommends that mothers should wait for at least two to three years between births to reduce infant and child mortality and improve maternal health. Studies supported by the United States Agency for International Development in 2002 have suggested that optimal birth spacing of three to five years might be more advantageous. These studies confirm that in less developed countries, if no births occur within thirty-six (36) months of a preceding birth, infant mortality and under five mortality rates would drop by 2% and 35 % respectively (USAID, 2002).

There are various reasons why time is needed between births. Having children too close has long been associated with increased risk of pregnancy outcomes, including poor health and mortality for mothers and children. Enough planned time between births increases the chances of a good outcome for the mother and each of her babies. It reduces abortions and unwanted pregnancies and improves children's health, nutrition and development. Mothers with short intervals between their births do not have enough time to recover from the nutritional burden of pregnancy before getting pregnant again while larger intervals allows for repletion or improvement in the nutritional status of mothers before the next conception (King, 2003, Dewey and Cohen, 2007) . Birth spacing also allows the mothers to recover physically and emotionally before she becomes pregnant again to face the demands of another pregnancy, birth, breastfeeding and child care (King, 2003, Rutstein, 2005). Birth spacing enables the proper planning of family resources for each child by the parents. Closely spaced and frequent births often lead to poverty and overburdened family environments and contribute to poor school performance through malnutrition and the inability of parents to provide attention to each child's needs (Brunson, 2010). According to the 2000 Population Report, children born three to five years after the last birth were about 2.5 times more likely to survive than children born two years or less after the last delivery. Mothers with 27 to 32-month birth intervals were found to be 2.5 times more likely to survive childbirth compared to women with 9 to 14-month birth

intervals. Women with optimal birth intervals were more likely to avoid anaemia, fetal growth, retardation and premature delivery, which results in low birth weight neonates (Costello, Osrin and Manandhar, 2004).

Alcohol exposure is one of the few modifiable risk factors for poor pregnancy outcomes. Fetal Alcohol Syndrome (FAS) was formally described only thirty-five years ago (Jones & Smith, 1973) but the effects of alcohol consumption in pregnancy on the unborn child have been recognised for hundreds of years (Lemoine ,2003). Alcohol consumption in pregnancy has been associated with miscarriage (Maconochie , Doyle, Prio & Simmons,2007),premature birth, stillbirth and low birth weight. (Sokol, Janisse , Louis, Bailey, Ager, Jacobson & Jacobson,2007; Burd , Roberts, Olson & Odendaal, 2007).

Research Questions

- Do mothers have knowledge on the risk factors influencing pregnancy outcomes?
- What is the attitude of mothers towards pregnancy related risk factors?

Methods

Research design

The study adopted a descriptive survey research design to investigate the knowledge and attitude of mothers on risk factors influencing pregnancy outcomes.

Sample/Sampling Technique

Simple random sampling technique was used to select 100 mothers within the four communities out of fifteen wards within the local Government.

Instrument

A structured questionnaire developed by the researchers in this study was the instrument used in collecting data. This was made up of section A which elicited information on the demographic data such as; age, marital status, number of children, etc. section B comprised of 10 items which elicited information on the questions related to knowledge of mothers on the risk factors influencing pregnancy outcomes, while section C comprised of 6 items which elicited responses on attitudes of mothers towards pregnancy related risk factors. This was scored using likert type scale of 4,3,2,1 for strongly agree (SA), agree (A), disagree (D), and strongly disagree (SD) respectively. Reliability coefficient of 0.659 and 0.701 respectively were obtained using Cronbach Alpha.

Method of data analysis

Descriptive statistics such as frequency counts, and percentages were used in analysing the data.

Results and Discussion:

Research Question 1: Do mothers have knowledge on the risk factors influencing pregnancy outcomes?

Table 1: Knowledge of mothers on the effect of pregnancy related risk factors

Statements	SA	A	SD	D	Mean	Std
Malnutrition in pregnancy could result in smallness of the baby, abortion etc	38 38.8%	36 36.7%	10 10.2%	14 14.3%	2.00	1.035
Pregnancy at younger age below 15 years often result in having children with Developmental Disabilities and pose risk of caesarean section at birth	18 18.4%	26 26.5%	28 28.6%	26 26.5%	2.63	1.069
Inadequate pre-natal care would cause death of the mother due to difficulties during delivery	33 33.0%	45 45.0%	9 9.0%	13 13.0%	2.02	0.974
Blood pressure more than 140/90 mm/Hg may lead to maternal death	54 54.0%	35 36.0%	2 2.0%	8 8.0%	1.75	1.431
Alcohol consumption leads to reduced birth size of the baby	27 28.7%	43 45.7%	11 11.7%	13 13.8%	2.11	0.978
Drug abuse at early stage of pregnancy result in brain damage of the baby	48 48.0%	44 44.0%	5 5.0%	3 3.0%	1.63	0.720
Inadequate maternal education result in poor deliveries	21 21.4%	48 49.0%	17 17.30%	12 12.2%	2.20	0.919
Pregnancy at age over 35 years result in giving birth to a baby with Developmental Disabilities	10 10.2%	27 27.6%	38 38.8%	23 23.5%	2.76	0.931
Diabetes could cause having overweight babies	24 24.0%	33 33.0%	15 15.0%	28 28.0%	2.47	1.141
prolong labour can result in having babies with developmental disabilities	33 33.7%	36 36.7%	21 21.4%	8 8.2%	2.04	0.941

The above Table shows the knowledge of mothers on the effect of pregnancy related risk factors.

‘Pregnancy at age over 35 years result in giving birth to a baby with Developmental Disabilities’ (Mean =2.76) ranked the highest by mean score rating and followed by ‘Pregnancy at younger ages below 16 years often result in delivering baby by caesarean section’(Mean=2.63) . ‘Diabetes could result in having overweight babies’ (Mean =2.47). ‘Inadequate maternal

education result in poor deliveries’ (Mean=2.20) while ‘Alcohol consumption leads to reduced birth size of the baby’ (Mean=2.11). ‘Prolong labour can result in having babies with developmental disabilities’ (Mean=2.04). ‘Inadequate pre-natal care would cause death of the mother due to difficulties during delivery’ had a Mean of (Mean=2.02). ‘Poor nutrition during first three months of pregnancy would result in birth defect’ (Mean=2.00). ‘Blood pressure more than 140/90 mm/Hg may lead to maternal death’ (Mean = 1.75). However ‘Drug abuse at early stage of pregnancy, result to brain damage of the baby’ had the least mean (Mean= 1.63).

Research question 2: What is the attitude of mothers towards pregnancy related risk factors?

Table 2: Attitude of Mothers towards Pregnancy related risk factors

Statements	SA	A	SD	D	Mean	Std
I do not see anything wrong in being pregnant every year or in quick succession	30 30.3%	29 29.3%	25 25.0%	15 15.2%	2.25	1.053
I will readily undergo Caesarean section if need be in order to avoid complications during delivery.	42 42.0%	31 31.0%	20 20.0%	7 7.0%	1.92	0.950
My culture does not see anything wrong having children as early as age 15	30 30%	28 28.0%	27 27.0%	15 15.0%	2.27	1.053
I do not think going for antenatal check up is necessary, hence I have my babies in the church or mosque.	5 5.1%	8 8.1%	65 65.7%	21 21.2%	3.03	0.706
I accept that prolong labour could result in having unhealthy babies; hence I ensure I register as early as possible when I am pregnant to prevent unforeseen events.	31 31.6%	37 37.8%	17 17.3%	13 13.3%	2.12	1.008
I do not see the need for education as a factor for safe delivery	31 31.0%	15 15.0%	28 28.0%	26 26.0%	2.49	1.185

The above Table revealed the attitude of mothers towards pregnancy related risk factors.

‘I do not think going for antenatal check up is necessary, hence I have my babies in the church or mosque’ (Mean=3.03) ranked highest by mean score rating followed by ‘I do not see the need for education as factor for safe delivery’ which is having the mean of (Mean=2.49). ‘My culture does not make me believe that having a child if one is below sixteen years of age will cause difficulty during delivery’ (Mean=2.27). ‘I do not see anything

wrong in being pregnant every year or in quick succession' (Mean=2.25) and 'I accept that prolong labour could result in having unhealthy babies, hence I ensure I register as early as possible when I am pregnant to prevent unforeseen events' which had the mean of (Mean = 2.12) and 'I will readily undergo Caesarean section if need be in order to avoid complications during delivery' (Mean=1.92)

Discussion

The purpose of this study was to investigate mothers' knowledge and attitude on the risk factors influencing pregnancy outcomes. Results showed that mothers were knowledgeable of the fact that having first pregnancy at younger age below 15 years and 35 years and above may result in having babies by caesarean section and risk of having children with Developmental Disabilities respectively (See Table 1). This agrees with the findings of Wardlaw and Kessel (2002) that maternal age below 15 years and 35 years and above could result in having children with Developmental Disabilities.

Alcohol exposure is one of the few modifiable risk factors for poor pregnancy outcomes. As revealed in this study, only a few do not have knowledge of consequences of alcohol consumption. In a study conducted by Lemoine (2003), the effects of alcohol consumption in pregnancy on the unborn child have been recognised for hundreds of years. Alcohol consumption in pregnancy has been associated with miscarriage, premature birth, stillbirth, low birth weight, (Sokol, Janisse, Louis, Bailey, Ager, Jacobson and Jacobson, 2007; Burd, Roberts, Olson and Odendaal, 2007; Maconochie, Doyle, Prio and Simmons, 2007). However, just a little contemporary data about women's knowledge and attitudes regarding alcohol consumption in pregnancy and how these are associated with alcohol consumption in pregnancy is available. In order to design effective health promotion strategies to reduce alcohol consumption in pregnancy, an understanding of the potential influences on women's behaviour is needed.

Drug ingestion was another factor discovered in this study that could have influence on pregnancy outcomes. It was also discovered that majority of the respondents had adequate knowledge on the consequences of drug ingestion (see Table 1) and this was contrary to the findings of Benegbi (2007), that there is a limit in the awareness among pregnant women about the safety of drugs during pregnancy because of the differences in the pattern of drug use and knowledge level in different countries.

As a matter of fact, attitude of mothers towards pregnancy related risk factors cannot be over looked. One of the many decisions made in the household which had consequences on family wellbeing, was the timing and spacing of children (Bhalotra and van Soest, 2006). As revealed in this study, majority of mothers do not see anything wrong in being pregnant

every year or in quick succession (see Table 2) and this contradicts the recommendation of World Health Organization that there should be spacing of at least two to three years between births to reduce infant and child mortality and improve maternal health. Also, the United States Agency for International Development in 2002, have suggested that optimal birth spacing of three to five years might be more advantageous. According to USAID (2002), if no births occur within thirty-six (36) months of a preceding birth, infant mortality rate and under five mortality rates would drop by 2% and 35 % respectively. According to the Ghana Maternal Health Survey, 2007, childhood and maternal mortality is strongly associated with variations in birth intervals. Unfortunately, many women in developing countries are only not able to achieve their own reproductive goals but are also falling far short of the three (3) to five (5) years intervals that new evidence suggests are healthiest. A United Nations Development Programme report drawn from studies in the least developed and developing countries in Africa reveals that the practice of family planning is very low and in most of these countries, one out of every four women expresses the desire to avoid pregnancies and use birth spacing methods but they are not able to do so (United Nations Population Division, 2009).

Basic maternity care comprises of quality antenatal care, clean and safe delivery whether the delivery takes place at home or in an institutional setting. One of the most important functions of antenatal care is to offer the woman information about the appropriate place of delivery given her own particular circumstances and health status. ANC is also an opportunity to inform women about the danger signs and symptoms for which assistance should be sought from a health care provider without delay (WHO 1994). As revealed in the study, majority of the mothers have positive attitude towards antenatal check up to ensure proper growth and development of the child as well as having a safe delivery.

Conclusion and Recommendations

The study revealed that greater proportion of the mothers have positive attitude towards ANC although very few of them were knowledgeable on the effect of pregnancy related risk factors. Recommendations were therefore made that:

- Health talks received by mothers in antenatal and child welfare clinics should be more explicit in order to further aid the knowledge of mothers with low level of education on risk factors such as diabetes, pregnancies at ages 35 years and above, pregnancy below 15 years of age and non-spacing of pregnancy that can influence pregnancy outcomes

- Mothers should avail themselves of opportunities in attending programmes that would enhance their knowledge on the importance of adequate nutrition during pregnancy and the subsequent attitudinal change on risk factors that can influence pregnancy outcomes.

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