

NUTRITION, TOBACCO AND ALCOHOL USE AS DETERMINANTS OF HEALTH STATUS OF PREGNANT WOMEN

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ABSTRACT

Good maternal nutrition is important for the health and reproductive performance of women and the health, survival, and development of their children. Malnutrition in women, including pregnant women, is not conspicuous and remains, to a large extent, uncounted and unreported; thus, insufficient attention has been given to the extent, causes, and consequences of malnutrition in women. As a result, inadequate resources and efforts have been allocated to improving women's nutrition compared with other nutritional and public health actions. The limited available data and the few experiences with programs that do exist come mostly from small-scale efforts to improve nutrition during pregnancy, often through nutritional supplementation to enhance fetal growth and birth weight. In developing countries such as Nigeria, it is paramount to state that low birth weight stems primarily from the mother's poor health and nutrition, and inadequate nutrition during pregnancy accounts for a large proportion of growth retardation

Key words: Good Maternal Nutrition, Health, Malnutrition in Women

INTRODUCTION

Maternal mortality is the most important indicator of maternal health and well-being in any country. W.H.O defined maternal mortality as “death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes”. Worldwide, an estimated half a million women die each year from complications of pregnancy and childbirth of this, 55, 000 maternal deaths occur in Nigeria alone (W.H.O., 2006).

Akinsola (2006) opined that every society, whether developed or developing, recognizes the importance of the health needs and problems of women and their children from birth to adolescent and for this reason both the pregnant woman and lactating mothers and their children are often given a special status in the society. This does not mean that the health of the father is

not important but the mother and the child constitute a special group known as “the at-risk” or vulnerable group.

A mother, according to Akinsola (2006) is defined as a woman who has borne a child; a female parent. A pregnant woman, considered as distinct from her developing fetus. In Nigeria, as in most developing countries, pregnant mothers as well as mother who gives birth within the first forty-two (40) days are usually exposed repeatedly to the risk of pregnancy either for themselves or their children.

In Africa, especially the sub-Saharan region, pregnancy related health risks caused about a quarter of the burden of disease in 1990 for women in the age group of 15-45 years. Despite a steady decline over the past decade, maternal mortality is still high in Africa, with an estimated life time risk of 1 to 16 and a maternal mortality ratio of about 1000 deaths per 100,000 live births (W.H.O. 2001), Nigeria ranks quite high with maternal mortality ratio of 585 per 100,000 (W.H.O. 2005). However, Alakija (2006) indicates that the situation had improved in the past decade. It was 11 in every 1000 live births a decade ago. Yet, even with such level, it is still high as compared to other African countries like Ghana with 3 to 5 deaths per 1000 live births as at 2002.

UNICEF (2008) observed that a woman's chances of dying from pregnancy and child birth in Nigeria is 1 in 13 and that 145 women of child bearing age die every single day due to pregnancy related causes. Complications of unsafe abortion, pregnancy and child birth like haemorrhage, obstructed labour, infections are some of the causes of deaths of mothers in Nigeria, (W.H.O., 2008) earlier outlined the major cause of maternal death to include high blood pressure (eclampsia), haemorrhage, obstructed, infection, anaemia and abortion. However, UNICEF (1996 and W.H.O., 2008) had earlier stated that on the average in developing countries, a pregnancy is 18 times more likely to end in the woman's death than in developed countries.

Maternal health is the state of physical, social and mental well being of women during pregnancy, labour and puerperium. Maternal health enables mothers and mother-to-be to keep fit during pregnancy and ensure adequate personal hygiene and proper nutrition of herself and the entire family during the period of pregnancy. The source emphasizes that the health of the mother is very important in determining the health of the children and the rest of her family. The author enumerates other things that determine the status and complete well-being of women to include; her educational status in the community, state of nutrition, how much energy she dissipates at her work, how many children she has, how closely apart they are born and the way she was fed as a child.

Smoking during pregnancy refers to the active use of cigarettes. It is associated with an increased risk for low birthweight delivery, spontaneous abortion, sudden infant death syndrome as well as long-term negative effects on growth and development, behavior and cognition of the infant. There are calls for an increase in smoking and alcohol consumption cessation during pregnancy especially the first trimester of pregnancy. According to experts in medical science, pregnant women who consume more than 6 ounces of liquor (or the equivalent) per day have a 20 percent chance of having a child with Foetal Alcohol Syndrome (FAS).

Statement of the problem

Antenatal, delivery and postnatal services are amongst recommended interventions aimed at preventing maternal and newborn death worldwide. Antenatal care services help pregnant women by identifying complications associated with the pregnancy or diseases that might adversely affect the pregnancy. Through antenatal visits, women benefit from various interventions including counseling about healthy lifestyle, the provision of iron/folic acid supplements and tetanus toxic vaccination reported to protect newborns against neonatal death. Sad to say that most pregnant mothers do not see the need to go for antenatal and postnatal checkup and as such, they lack the knowledge concerning the kind of meal they should eat during this period.

As a result of negligence on the part of pregnant mothers to go for antenatal and postnatal clinics, they have little or no idea on the kind of physical activities they should engage themselves in order to maintain an healthy life.

Adversely, in this part of the world, the quality of health care received in antenatal and postnatal clinics is beginning to call for concern. In most cases, the pregnant mothers are not given listening ears, the nurses are not friendly with them, drugs are not administered to them on time, as such, leads to them (pregnant women) not showing interest in attending antenatal and postnatal clinics. Also, most clinics lack technically competent health workers in addition to the poor facilities.

Tobacco usage by pregnant mothers also poses another major problem to pregnant mothers as some of them see it as fun consuming tobacco substances such as cigarette, marijuana, cocaine, snuff and the like without considering its adverse effect on their health status and that of their unborn babies. On the other hand, some pregnant women take delight in drinking alcohol during pregnancy, as such, exposing their babies to risks.

Purpose of the study

The main purpose of the study is to examine health status of mothers in Akwa Ibom State attending antenatal and postnatal clinics with consideration of surveillance indicators. Specifically, the following objectives will be carried out:

1. To determine the effect of nutrition on health status of mothers attending antenatal and post natal clinics.
2. To find out the effect of tobacco use and alcohol on health status of mothers attending antenatal and post natal clinics.

Literature Review

Nutrition and Health Status of Mothers

Maternal nutrition before and during pregnancy is an important determinant of birth weight. High rate of Low Birth Weight (LBW) in developing countries has been attributed to poor maternal nutrition. Antenatal care offers an opportunity for assessment of the nutritional status of a pregnant woman as well as the assessment of essential nutritional actions and continuous monitoring throughout pregnancy. Alakija (2006) opined that there are heightened nutrient needs during pregnancy. Without a corresponding increase in energy and other nutrient intakes, the body's own reserves are used, leaving a pregnant woman weakened and vulnerable to maternal

and fetal complications, and, at worst, death. Malnutrition has been recognized as one of the underlying factor for maternal death during the process of procreation. The causes of malnutrition are multidimensional and multi-factorial with poverty, food inadequacy and maternal illiteracy being the main culprit of the menace in developing countries. The health of the mother and her nutritional status can influence the health and survival of the child because of the biological links that exist between her and her child during pregnancy and lactation.

According to Alakija (2006), the relevance of nutrition assessment during antenatal sessions is for monitoring progress of pregnancy and detecting risk factors for the mother, the fetus and/or the infant associated with nutritional deficiencies. A pregnant woman who is underweight or micronutrient deficient is more likely to have poor birth outcomes affecting both mother and baby. On the other hand, a pregnant woman who is overweight has an increased risk of coronary heart disease, high blood pressure, high blood cholesterol, and diabetes that can complicate a pregnancy. During antenatal sessions, women identified as at-risk of malnutrition are given closer nutritional and medical attention and are advised to have more frequent visits to the health service providers in order to receive appropriate care and support. The pregnant women are encouraged to eat a variety of foods, according to local availability and accessibility, in adequate amounts in order to meet their nutritional requirements. Micronutrient status of pregnant women can be improved through diet diversification, micronutrient supplementation, and food fortification.

Ali (2004) asserts that women who attend antenatal clinics are educated on how to achieve optimal nutritional status during pregnancy. Key nutrition information are provided in antenatal clinics on the following issues:

- Importance of adequate nutrition during pregnancy.
- Relevancy of appropriate weight gain during pregnancy.
- Increased nutrient requirements.
- Nutrient rich dietary sources.
- Importance of micronutrient supplementation during pregnancy.
- Guidelines for healthy eating habits.
- Appropriate food preparation methods
- Food safety and hygiene.
- Avoidance of substance abuse (e.g. alcohol, drugs, smoking).
- Nutrition precautions in special circumstances such as chronic diseases, medications, etc.

Good maternal health and nutrition are essential cornerstones of safe motherhood and child survival. Women who enter their reproductive years nutritionally strong and free of disease and any infection have a much better chance of being healthy throughout pregnancy and delivery and of passing that good health along to their foetus/babies, than women who are malnourished. Good nutrition requires that women, especially those who intend to get pregnant, eat a diet high in calories, proteins, and micronutrients. While these requirements are hard to ensure, according to experts in health science, micronutrient supplementation can reduce some deficits. Micronutrient deficiencies especially in the months immediately preceding pregnancy and in early pregnancy increase the risks of disability and death for mother and child. This is particularly true for deficiencies in iron, iodine, Vitamin A, and folic acid. According to Alakija (2006), appropriate supplementation before and during pregnancy is a low-cost intervention that can reduce infections and anemia, thus improving the chances of survival for mothers and, directly and indirectly, their infants.

The work status of the mother plays an important role in determining the health and nutrition status of her child. For social and biological reasons, women of the reproductive age are amongst the most vulnerable to malnutrition. Birth weight, child growth, and adolescent growth determine nutritional status before and during pregnancy (maternal nutrition). Maternal nutrition also influences fetal growth and birth weight (Alakija (2006). The presence of an intergenerational link between maternal and child nutrition means that a small mother will have small babies who in turn grow to become small mothers. In developing countries such as Nigeria, it is paramount to state that low birth weight stems primarily from the mother's poor health and nutrition, and inadequate nutrition during pregnancy accounts for a large proportion of growth retardation (Ali (2004). In Nigeria, there are some adverse socio-cultural and economical factors that produce negative consequences and reduce women's access to effective ante-natal services needed to reduce maternal morbidity. Maternal diet is an important determinant of outcomes of pregnancy as such malnutrition during pregnancy and its consequence maximally affects the health and long-term outcomes of the population. Recently, high rate of Low Birth Weight (LBW) have been reported in most developing countries. In Nigeria, Low Birth Weight (LBW) accounts for almost 30% of all births with maternal malnutrition as a dominant risk factor (Ali, 2004). Anecdotal observation during clinical experience at Yerwa Ante-natal clinic showed that most of the pregnant women receiving antenatal care had signs of malnutrition.

Tobacco / Alcohol Use and Health Status of Mothers

According to Ali (2004), smoking during pregnancy causes additional health problems, including premature birth (being born too early), certain birth defects, and infant death. Tobacco smoking is related to many effects on health and reproduction, in addition to the general health effects of tobacco. Ideally, during antenatal sessions, women are advised not smoke before, during or after pregnancy. If this is not the case, however, the daily number of cigarettes can be reduced to minimize the risks for both the mother and child. This is particularly important for women in developing countries where breastfeeding is essential for the child's overall nutritional status.

Experts have highlighted the dangers of smoking to include that smoking makes it harder for a woman to get pregnant (causes infertility); women who smoke during pregnancy are more likely than other women to have a miscarriage (abortion); smoking can cause problems with the placenta (placental insufficiency) the source of the baby's food and oxygen during pregnancy. For example, the placenta can separate from the womb too early, causing bleeding, which is dangerous to the mother and baby; smoking during pregnancy can cause a baby to be born too early (pre-mature) or to have low birth weight making it more likely the baby will be sick and have to stay in the hospital longer. A few babies may even die. Also, smoking during and after pregnancy is a risk factor of Sudden Infant Death Syndrome (SIDS). SIDS is an infant death for which a cause of the death cannot be found; babies born to women who smoke are more likely to have certain birth defects, like a cleft lip or cleft palate

According to World Health Organization (W.H.O.) (2006), data from 24 states reported approximately 10% of women smoking during the last 3 months of pregnancy. Of women who smoked 3 months before pregnancy, 55% quit during pregnancy. Among women who quit smoking during pregnancy, 40% relapsed within 6 months after delivery. Mothers who smoke are more likely to deliver their babies early. Preterm delivery is a leading cause of death, disability, and disease among newborns. One in every five babies born to mothers who smoke during pregnancy has low birth weight. Mothers who are exposed to secondhand smoke while pregnant are more likely to have lower birth weight babies. Babies born too small or too early are

not as healthy (UNICEF, (2008). Smoking before, during and after pregnancy is not an unusual behavior among the general population and can have detrimental health impacts, especially among both mother and child as a result. It is reported that roughly 20% of pregnant women smoke at some point during the three months. In the United States today, approximately 10% of women smoke during pregnancy. Of women who smoked during the last 3 months of pregnancy, 52% reported smoking 5 or fewer sticks of cigarettes per day, 27% reported smoking 6 to 10 sticks of cigarettes per day, and 21% reported smoking 11 or more sticks of cigarettes per day. In the United States, women whose pregnancies were unintended are 30% more likely to smoke during pregnancy than those whose pregnancies were intended.

According to Ali (2004), mothers who attend antenatal clinics are told that every cigarette one smokes increases the risks to the foetus. A few cigarettes a day are safer than a whole pack, but the difference is not as great as one might think. A smoker's body is especially sensitive to the first doses of nicotine each day, and even just one or two sticks of cigarettes will significantly tighten blood vessels. That is why even a "light" habit can have an outsize effect on the baby's health. Babies whose mother smoked in the first trimester of pregnancy are more likely to have a heart defect at birth. Experts have highlighted the importance of avoiding smoking to include; that the baby will get more oxygen, even after just one day of not smoking; there is less risk that the baby will be born too early; there is a better chance that the baby will come home from the hospital with the mother who will be less likely to develop heart disease, stroke, lung cancer, chronic lung disease, and other smoke-related diseases; mothers will be more likely to live to know their grandchildren; and will have more energy and breathe more easily; clothes, hair, and home will smell better; food will taste better; and the family will have more money that can spend on other things; will feel good about what has done for herself and the baby.

Researchers analyzed data on 2,525 babies who had heart defects at birth and 3,435 healthy babies born in Baltimore and Washington, D.C., between 1981 and 1989 and found that smoking during pregnancy can have lifelong effects on baby's brain. Children of pregnant smokers are especially likely to have learning problem, behavioral disorders, and relatively low IQs. Maternal smoking is associated with an increased risk of stillbirth (foetal death after 28 weeks' gestation) and neonatal mortality (death of an infant within the first 28 days of life). According to UNICEF, (2008), data from the Australian Institute of Health and Welfare's National Perinatal Statistics Unit show that in 2003, babies born to mothers who smoked during pregnancy had a 50% greater risk of perinatal death than babies of non-smoking women.

According to Ali (2004), during antenatal sessions, women are told that when they consumes alcohol, the alcohol passes across the placenta to the fetus and can increase the risks of miscarriage, stillbirth, and serious and lifelong disorders known as Fetal Alcohol Spectrum Disorders (FASDs). Children with FASD may experience delayed development, poor muscle tone, heart defects, and malformation in their faces. In order to prevent FASD, a woman should not drink alcohol during pregnancy, when she is trying to conceive, or if she is sexually active and not using effective contraception as alcohol in the mother's blood passes to the baby through the umbilical cord. Drinking alcohol, in any amount, is not recommended for women who are pregnant or may become pregnant. Children with FASDs might have characteristics behaviors such as abnormal facial features, smooth ridge between the nose and upper lip (this ridge is called the philtrum); small head size; shorter-than-average height; low body weight; poor coordination; hyperactive behavior; difficulty with attention; poor memory; difficulty in school (especially with mathematics); learning disabilities; speech and language delays; intellectual

disability or low IQ; poor reasoning and judgment skills; sleep and sucking problems as a baby; vision or hearing problems as well as heart, kidney, or bones problems.

According to the Ali (2004), there is no safe time to drink alcohol during pregnancy. Alcohol can cause problems for the developing baby throughout pregnancy, even before a woman knows she is pregnant. Drinking alcohol in the first three months of pregnancy can cause growth and central nervous system problems of the baby (e.g., low birth-weight). The baby's brain is developing throughout pregnancy and can be affected by exposure to alcohol at any time. If a woman is drinking alcohol during pregnancy, it is never too late to stop. The sooner a woman stops drinking, the better it will be for both her baby and herself. The proportion of mothers using alcohol use during the last trimester of pregnancy increased with maternal age, ranging from 2.4 percent of those aged 19 years or younger to about 10 percent of women aged 30 years or older.

According to the U.S. Department of Health and Human Services (HHS), cessation of alcohol use during pregnancy is a key public health issue, as more than half (52.8 percent) of mothers reported that they had consumed alcohol during the last three months prior to pregnancy. Among those who had consumed alcohol prior to pregnancy, 87.5 percent reported that they did not drink during their third trimester. Non-Hispanic Asian mothers (81.7 percent) were significantly less likely to stop consuming alcohol as compared to mothers of all other racial and ethnic groups. The proportion of mothers to report cessation of alcohol use varied by maternal age, with cessation more common among younger mothers. Some women may need professional help in order to overcome dependency on alcohol. The Centers for Disease Control and Prevention recommends that women contact their doctors, Alcoholics Anonymous, or a local alcohol treatment center. Antenatal care helps decrease risks during pregnancy and increases the chances of safe and healthy delivery for the mother and child. Regular prenatal visits can help the doctor monitor every pregnancy and identify any problems or complications before they become serious.

Conclusion

Various Governments at different times have created current scenarios that depict increased availability and easy accessibility of health care services both in the rural and urban areas of the country for both mothers and children. However, utilization of such services has not been much and so has not been adequately monitored. Studies across the globe have revealed low utilization of the health care services by various segments of the society for varying reasons. This is especially true in the case of maternal and child health care services for the mothers and children.

Recommendations

The following are recommended:

1. Awaiting mothers should ensure they regularly attend antenatal clinics so as to be educated on how to achieve optimal nutritional status during pregnancy.
2. Trained personnel should attend to the women during labour and delivery to help prevent cases of maternal mortality

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