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Prevalence of Caesarean Section Use among Childbearing Mothers in Nsukka Urban, Nsukka Local Government Area, Enugu State

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Abstract
The study investigated the prevalence of caesarean section use among the childbearing mothers in Nsukka Urban, Nsukka Local Government Area (LGA) in Enugu State. The study utilized a descriptive cross-sectional survey research design. The population for the study comprised 447 registered pregnant mothers in hospitals in Nsukka Urban. A structured questionnaire titled Prevalence Use of Caesarean Section Use Questionnaire (PCSUQ) was the instrument for data collection. Data were analyzed using SPSS version 22 statistics of frequency count and percentage. The result of the study revealed that out of 301 respondents (childbearing mothers) that were administered the questionnaire, 47 of them which represent 15.6 per cent affirmed that they have used CS for child delivery before. The findings showed that out of the 47 childbearing mothers that have used CS for child delivery, 29 of them which represent 61.7 per cent have used CS only once; 13 respondents which represent 27.6 per cent have used CS two times; 4 respondents which represent 8.5 per cent have used CS three times, while only one respondent has used CS more than three times. The finding also shows that out of the 47 childbearing mothers that have used CS for child delivery, 32 of them representing 61.7 per cent have used CS for child delivery because the mother was at risk. The findings suggested that the government sponsor health education programmes to educate childbearing mothers that CS for child delivery can arise as a result of complications during labour to save the mother or the baby or both.
Keywords: Caesarean Section, Prevalence, Nsukka Urban, Childbearing Mothers

Introduction

Globally, caesarean section (CS) as an option for child delivery seems to be increasing gradually. Also, CS continues to pose a threat to some pregnant childbearing mothers in Nigeria. It is one of the oldest and most commonly performed obstetric surgery globally, with over 33 per cent of women in developed countries undergoing it when they give birth (Morris, 2012). Research evidence provided by the findings of a research conducted by Betrain, Ye, Moller, Zhang, Gulmezoglu and Tolu (2016), revealed that currently, 18.6 per cent of all births occur by CS. The authors further reported that Latin America and the Caribbean region has the highest CS rates (40.5 per cent), followed by Northern America (32.3%t), Oceania (31.1%), Europe (25%), Asia (19.2%) and Africa (7.3%). This showed that Africa was the least, as CS practice was gradually increasing globally. According to Jisu and Kabiru (2014), research findings from 121 countries showed that between 1990 and 2014, the global average CS rate increased from 6.7 per cent to 19.1 per cent (12.4% increase rate). The above findings are supported by Weiser (2017), who reported that in 2017, about 28 million C-sections were performed globally. However, the rate of CS used for delivery may differ based on the continents, countries or local government areas.

In Africa, there is an increasing rate of using CS to deliver babies among childbearing mothers. Similarly, Hembah (2015) reported that in Africa, 7.3 per cent of babies are born through this method, but it is a very mixed picture across the continent. The author maintained that countries such as Egypt and Mauritius have very high rates of CS practice for child delivery with 51.8 per cent and 47 per cent respectively. The author further reported that despite a 4.5% overall increase rate across Africa continent from 1990, there has been a decline in some countries such as Nigeria and Guinea which now stands at about 2 per cent.

Caesarean section for delivery is performed for the benefit of the mother, the baby or for both of them. Caesarean Section is defined as delivery of a foetus through a surgical incision into the uterine wall after 28 weeks of gestation (Kwawume, 2012). It is a life-saving intervention for childbearing mothers and newborns, often necessary when a vaginal delivery would put the baby or the mother at risk, especially when there are complications such as bleeding, foetal distress, obstructed labour, twin pregnancy, high blood pressure in the mother, breech birth, babies in abnormal positions or problems with the placenta or the umbilical cord (Morris, 2012). Also, it is a global medical practice where delivery of babies is done by a surgical incision into the uterine wall of the pregnant woman after the gestation period. Meanwhile, the use of CS for child delivery does not usually

happen by choice of delivery method among childbearing mothers, there are reasons for such choice by healthcare professionals.

As a result, many reasons have been identified for using CS. Samdal and Steinsvik (2015) identified some reasons for using CS during child delivery: These include prolonged labour, obstructed labour, more than one baby in the womb, infections, narrow pelvic/disproportion, placenta praevia, placental abruption, maternal request, uterine rupture and foetal distress. Other factors include asphyxia, meconium-stained fluid, breech, big baby, very small baby, premature baby, multiple pregnancies and hydrocephalus or other malformations. The CS practice is also performed as a result of its multiple benefits.

There are benefits of CS, of which the main advantage is to avoid adverse complications associated with vaginal delivery especially difficult deliveries and deliveries that pose a threat to the life of the unborn baby or babies. Meanwhile, advances in health and medical knowledge over time and improvements in an anaesthetic technique and infection control have made caesarean section to be a relatively safe operation to perform. A study has shown that some mothers have a preference for CS delivery because of fear of labour pain or due to having a belief that CS is safe for infants (Jisu & Kabaru, 2014). This shows that childbearing mothers that prefer caesarean section for child delivery do so because they would not like to experience the pains that come along with labour.

In an attempt to avoid the labour pains, some childbearing mothers would tag CS as a modern way of child delivery without the mother undergoing the usual cry and shout as a result of pains during labour. This supports Huda (2012) who found that CS may reflect women's desire to avoid the arduous process of labour and delivery. According to Jisun and Kabar (2014), among all the childbearing mothers in Nigeria who preferred CS, about 64.7 per cent of them preferred CS as they thought it out to be a modern and technology-based process. Furthermore, the study showed that about 40.5 per cent of women reported that they preferred CS to avoid perinea pain during delivery. Most interestingly, performing a CS on maternal request is prevalent only among the rich, educated urban childbearing mothers.

However, the caesarean section also has some risks which childbearing mothers seem not to know about. This is in line with Morris (2012) who reported that there are risks related to the surgical procedure as well as risks related to the anaesthetic procedure. Risks related to the surgical procedure may happen as a result of mistake or realities during the surgical process (Jisu & Kabaru, 2014). For instance, there could be a possible hysterectomy, bladder repair or another caesarean after the initial CS. There could be adhesions, such that scar tissue may form inside the pelvic region causing blockage and pain. Adhesion can also lead to future pregnancy complications such as placenta Previa or placental abruption. It can also lead to blood transfusion. There could be a possible injury to organs such as the bowel or bladder. Infections can occur at the incision site, in the uterus and other pelvic organs such as the bladder. A baby delivered by CS could be delivered too early and have low birth weight. Some studies (Morris, 2012; Ngwu, 2015; Adewole, 2017) revealed that there is the existence of a greater need for assistance with breathing and immediate care after a caesarean section than with a vaginal delivery. This is the reason Mazzoni (2011) stated that a major surgical procedure and perioperative complications remain a significant source of maternal and foetal morbidity and mortality. The maternal death rate following CS has been quoted to be between 0.2 – 1.8 per cent in Nigeria (Ngwu, 2015). Therefore, this study aimed to determine the prevalence of CS among childbearing mothers inNsukka LGA, Enugu State.

Prevalence is the total number of people that use a particular medical intervention or it is also the number of cases of a disease in a given population at a specific time. Lucas and Gilles (2003) defined prevalence as the number of occurrence of both old and new cases of the disease within a stated period in a human population. It is a measure often used to determine how often a particular medical intervention was utilized and the level of morbidity in a population. Therefore the number of prevalent cases is the total number of cases of a disease existing in a population irrespective of the duration of the condition. Contextually, prevalence is regarded as the number of childbearing mothers that use caesarean section for delivery in Nsukka urban, Nsukka LGA in Enugu State at the time of the study.

Childbearing is a progression that involves the period of pregnancy, childbirth and postpartum phase. According to Azubuike (2014), childbearing mothers are women who are physiologically capable of producing babies, or who are still within their reproductive age (15 – 49 years). However, childbearing mothers are the concern of this study. Occasionally, the need to deliver the baby through CS might be recommended for pregnant mothers as a result of complications or other factors. This study will therefore investigate the prevalence of CS delivery among childbearing mothers based on some frequently mentioned socio-demographic variables.

Several socio-demographic factors may influence the prevalence of caesarean section among childbearing mothers. Some frequently mentioned demographic variables that determine the use of CS in most previous studies

include age, level of education and location (Morris, 2012). Amidst other socio-demographic factors, this study focused on the age and level of education.

Age has been implicated to be associated with CS use among childbearing mothers. According to Malik (2012), the age of a childbearing mother is a determinant of their use of CS. However, Jimoh (2011) found no relationship between age and the use of CS among women. There are diverse views on whether the level of education of the childbearing mothers determines their use of CS. According to Ibrahim (2009), who reported that women with a secondary or higher level of education were nearly two times more likely to undergo CS than women with no or only a primary education qualification.

Nsukka urban is in the Enugu North Senatorial Zone of Enugu State. Nsukka Urban has many hospitals provided services on Caesarean section, such as University of Nigeria, Nsukka Medical Centre, Bishop Shanahan Hospital, Faith Foundation Hospital, General Hospital Nsukka, Health Centre Nsukka and University Teaching Hospital Obukpa. From the researchers' observation in different hospitals during clinical supervision of undergraduate students, there were many child deliveries through CS, but this study becomes imperative to confirm the prevalence cases of the use of CS in the hospitals in Nsukka urban Enugu State. Thus, this study sought to determine the prevalence of caesarean section among childbearing mothers in Nsukka urban.

Surgical interventions during deliveries should be for the safety of both the mother and baby when complications and obstetric risks are anticipated. The aim of CS is the avoidance of adverse complications associated with vaginal delivery especially difficult deliveries and deliveries that pose a threat to the life of the unborn baby. It is ideally that CS should not be performed on pregnant mothers at surgeon's will, but through recommendation in complicated cases of child delivery where delivery through vagina will pose a threat to either the mother or the baby or both of them. Unfortunately, the prevalence of CS delivery in the study area appears to be at an increasing rate.

Some recent studies revealed that there is a considerable increase in the rate of birth through CS, which in most cases are child delivery that would have been performed through a vaginal delivery process. It has been established by researchers that some pregnant mothers demand for use of CS to avoid pains associated with vaginal delivery. Therefore the study aims to establish the proportion of childbearing mothers that used caesarean section in child delivery, and the proportion of childbearing mothers conditions that lead to the use of Caesarean section in child delivery in Nsukka urban. As a result, this study sought to determine the prevalence of caesarean section among childbearing mothers in Nsukka urban in Nsukka Local Government Area, Enugu State. This is the gap for the study.

Methods

The study adopted a descriptive cross-sectional survey design to investigate the prevalence of caesarean section delivery rate among the childbearing mothers in Nsukka Urban, Nsukka LGA Enugu State. The study was conducted in Nsukka Urban, Nsukka L.G.A. Nsukka LGA is one of the seventeen Local Government Areas in Enugu State. Nsukka LGA is made up of sixteen communities, and almost all childbearing mothers in these communities patronized the six major hospitals in the Nsukka urban for antenatal and child delivery services. The six major hospitals are University of Nigeria, Nsukka Medical Centre, Bishop Shanahan Hospital, Faith Foundation Hospital, General Hospital Nsukka, Health Centre Nsukka and University of Nigeria Teaching Hospital Obukpa. The population for this study consisted of all the 447 registered pregnant mothers in the five major hospitals in Nsukka urban as of the time of conducting this study. These hospitals and the number of registered pregnant mother according to the hospital's records are: the University of Nigeria, Nsukka Medical Centre (44), Bishop Shanahan Hospital (124), Faith Foundation Hospital (88), General Hospital Nsukka (71), Health Centre Nsukka (67) and University Teaching Hospital Obukpa (58). There is no sampling as the entire population was used for the study since the population is small and manageable.

The instrument for data collection was a structured questionnaire titled Prevalence Use of Caesarean Section Use Questionnaire (PCSUQ). The PCSUQ consisted of two sections. Section A elicited information on the respondent's socio-demographic data, while section B elicited information on the prevalence of use of CS among childbearing mothers and the respondents were requested to tick as it applied to them. Face validity of the instrument was established by three experts from the Department of Human Kinetics and Health Education, University of Nigeria Nsukka. To determine the reliability of the instrument, 20 copies of the questionnaire were administered to 20 pregnant mothers in Udenu L.G.A. which is outside the study area. The result of the Alpha co-efficient value was 0.70. The distribution and collection of the questionnaire were facilitated by the assistant of health workers in the facilities, after a brief explanation of its contents to the respondents by the researcher. The returned copies of the completed questionnaire were scrutinized thoroughly to determine the completeness of the

responses. The data collected were coded and analyzed using Statistical Package for Social Science - (SPSS Batch System) version 22. Frequency and percentage were used to answer the research questions.

Results

Table 1: Percentage Distribution of Childbearing Mothers that used Caesarean Section for Delivery

Item	Frequency	Per cent
Have you delivered a baby through Caesarean section before?		
Yes	47	15.6
No	254	84.4
Total	301	100

Table 1 shows that out of 301 respondents (childbearing mothers) that were administered the questionnaire, 47 of them which represent 15.6 per cent affirmed that they have used CS for child delivery before. The table also indicated that 254 childbearing mothers which represent 84.4 per cent of the respondents stated that they have not used CS before. This implies that a greater number of the childbearing mothers have not used CS for child delivery in Nsukka urban.

Table 2: Percentage distribution of childbearing mothers based on the number of times they used Caesarean section for delivery.

Item	Frequency	Per cent
How many times have you deliver a bay through; Caesarean section?		
One	29	61.7
Two	13	27.6
Three	4	8.5
More than three	1	2.2
Total	47	100

Table 2 shows that out of the 47 childbearing mothers that have used CS for child delivery, 29 of them which represent 61.7 per cent have used CS only once; 13 respondents which represent 27.6 per cent have used CS two times; 4 respondents which represent 8.5 per cent have used CS three times, while only one respondent has used CS more than three times. From the above result of the analysis, it implies that a greater number of respondents have used CS for child delivery only once.

Table 3: Percentage distribution of childbearing mothers based on the condition that lead to their using Caesarean section for delivery

Item	Frequency	Per cent
What are the conditions that lead to your use of Caesarean section for child delivery?		
Mother was at risk	32	68.0
The child was at risk	14	29.8
Both mother and child were at risk	1	2.2
Personal demands	0	0.0
Total	47	100

Table 3 shows that out of the 47 childbearing mothers that have used CS for child delivery, 32 of them representing 61.7 per cent have used CS for child delivery because the mother was at risk. The result also indicates that 14 respondents which represent 29.8 per cent have used CS for child delivery because the child was at risk, while only one childbearing mother which represents 2.2 per cent has used CS for child delivery because both the mother and child were at risk. This implies that the majority of childbearing mothers used CS for child delivery because the mother was at risk; while none of the childbearing mothers had CS for child delivery based on personal demand.

Discussion of Findings

Result in Table 1 shows that out of 301 respondents (childbearing mothers) that were administered the questionnaire, 47 of them affirmed that they have used CS for child delivery before. The table also indicates that 254 childbearing mothers of the respondents stated that they have not used CS before. The finding was not expected and therefore was surprising to the researcher. The findings were contrary to Amiegheme, Adeyemo and Onasoga (2016) who reported that an increased number of childbearing mothers used caesarean section than before. The finding was conducted in Edo State, and only pregnant mothers attending a particular missionary hospital was used as respondents. The findings might be as a result of the fact that the missionaries working in the hospital might be encouraging childbearing mothers to strive to deliver their babies through CS when vaginal delivery failed. According to Samdal and Steinsvik (2015), who investigated the rate and indications for performing CS in Oklaldhunga community hospital (OCH), Nepal. The sample size was all the childbearing mothers undergoing CS from the period of August 2014 to the same month of August 2014. The respondents were interviewed regarding the age, socio-economic background and medical history using a semi-structured questionnaire. The findings of the study indicated that childbearing mothers irrespective of age bracket did use CS for delivery more to avoid pains of labour.

The finding in Table 2 shows that out of the 47 childbearing mothers that have used CS for child delivery, 29 of them have used CS only once; 13 respondents which represent have used CS two times; 4 respondents which represent 8.5% have used CS three times, while only one respondent has used CS more than three times. From the above result of the analysis, it implies that a greater number of respondents have used CS for child delivery only once.

The finding agrees with the findings of Faler (2008) who reported that as age was a determining factor in the use of CS for delivery, majority of childbearing mothers of younger age also preferred to have only one child and through CS for child delivery than the older ones.

Table 3 shows that out of the 47 childbearing mothers that have used CS for child delivery, 32 of them have used CS for child delivery because the mother was at risk. The result also indicates that 14 respondents have used CS for child delivery because the child was at risk, while only one childbearing mother has used CS for child delivery because both the mother and child were at risk. This implies that the majority of childbearing mothers used CS for child delivery because the mother was at risk, while none of the childbearing mothers had CS for child delivery based on personal demand. The researcher was not expecting the above result and therefore was surprised. This is because the researcher expected that majority of childbearing mothers used CS on their demands to avoid labour pains. The finding of the study is contrary to the findings of Adewole (2017) who conducted a study to investigate the determining factors associated with the use of CS in child delivery in Ogun State, Nigeria. The author utilized 804 pregnant women as respondents. The findings of the study indicated that pregnant mothers demanded CS for child delivery. This implies that the use of CS delivery among the childbearing mothers in Nsukka urban was as a result of complications, to save the life of either the mother, the baby or both of them.

Conclusion

The findings of the study have shown that out of three hundred and one respondents (childbearing mothers) that were administered the questionnaire, forty-seven of them affirmed that they have used CS for child delivery before. The finding shows that out of the forty-seven childbearing mothers that have used CS for child delivery, twenty-nine of them have used CS only once; thirteen respondents have used CS two times; four respondents have used CS three times, while only one respondent has used CS more than three times. The finding also shows that out of the forty-seven childbearing mothers that have used CS for child delivery, thirty-two of them representing have used CS for child delivery because the mother was at risk.

Recommendations

Based on the findings, the following recommendations were made:

1. Health seminars and community sensitization should be adopted by health educators and other health workers, to health educate childbearing mothers on the benefits of using CS for child delivery when the need arises. Childbearing mothers should also be discouraged from seeing CS delivery as a modern way of avoiding pains associated with labour and vaginal delivery
2. The government should sponsor health education programmes to inform Childbearing mothers that CS for child delivery can arise as a result of a complication during labour to save the mother or the baby or both.

3. Childbearing mothers should always observe routine medical checks especially when they become pregnant, to enable them to deliver safely without complication.

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