PERCEPTION OF CHILD BEARING WOMEN ABOUT CONGENITAL BIRTH DISORDERS IN ANAMBRA STATE

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ABSTRACT: *Background: Congenital birth disorders causes a huge challenge and burden in low and middle income countries. It equally constitute a public health threat which deserve holistic attention in Anambra State. They can be due to advanced maternal age, maternal infection of child bearing women or multifactorial causes. Aim: The study determined the perception of child bearing women about risk factors, effects, management and prevention of congenital birth disorders in Anambra State.* **Materials and Methods***: A descriptive cross -sectional survey design was adopted for the study, sample size was 436 and a multi stage sampling technique was used. The instrument for data collection was a self-structured questionnaire and data obtained were analysed using Microsoft excel, Chi-square for hypothesis testing and IBM statistical package for social sciences (SPSS) version 29.* **Results***: it was revealed that most child bearing women have positive perception about the risk factors of congenital birth disorders (72.79%), effect on the affected child and family (71.50%), management by a specialist (100%), effective measures necessary to prevent congenital birth disorders (73.73)* **Conclusion***: Congenital birth disorders is one of the public health concerns in Anambra State which may result in stigmatization, depression, marital strain, financial strain, parental exploitation, mental retardation, permanent disability and death. The major risk factors of congenital birth disorders are advanced maternal age, unhealthy life styles, occupation, smoking, alcohol, illiteracy and parity. Therefore, efforts should be made to raise awareness of the occurrence and risk factors of congenital birth disorders in developing countries.*

KEYWORDS: Perception, Congenital birth disorders, Anambra State, Risk factors, Effects, Prevention, Management.

INTRODUCTION

Congenital birth disorders are the major causes of neonatal, infant and childhood mortality, chronic illness and disability in the developing countries (Akinlabi and Ikeola, 2019). It contribute to long-term disability which takes a significant toll on the affected individuals, families, health care systems and societies at large (World Health Organisation [WHO], 2016). Congenital birth disorders also known as congenital birth defects, congenital malformations or congenital anomalies can be defined as structural or functional defects that occur during the intrauterine life. Congenital birth disorders can be identified prenatally, at birth, or sometimes may only be detected later in infancy, such as hearing defects (WHO, 2016). Congenital birth disorders are also a physical and psychological anomalies present in a baby at birth, which can involve many different parts of the body including the brain, heart, lungs, liver, bones, and intestinal tract (Davis, 2021). Congenital birth disorders can be minor or severe (WHO, 2016). All populations share the burden of congenital birth disorders, although the frequency and type of malformation vary according to race, ethnicity, socio-economic status, access to medical care, nutrition, maternal lifestyle and education (Ekanem, Okon, Akpantah, Mesembe, Eluwa and Ekong, 2018). They may affect appearance, organ function, and physical and mental development (WHO, 2016). Most congenital birth disorders are discovered within the first three months of pregnancy when organs are still forming (Mark, 2017). Some congenital birth disorders are harmless, while others require long-term medical treatment and some can be very debilitating (Laflamme, 2017). Lawal, Adeleye, Ayede, Ogundoyin, Olulana and Olusanya (2017) noted significant under-estimation of congenital birth disorders in low and middle income countries due to non-presentation at health facilities, and poor awareness.

Studies have shown that the risk factors of congenital birth disorders may be genetic (10–30%), environmental (5–10%) or due to multifactorial inheritance (20–35%), while 30–45% are unknown (Akinlab, and Ikeola, 2019). Implicated maternal factors of congenital birth disorders include; age, lifestyle, and illnesses during pregnancy, non-use or abuse of antenatal medication and peri-conceptual folic acid (Sadler, 2015). Parental consanguinity, previous miscarriages, stillbirths, and inheritable congenital disease are other important factors in the causes of congenital birth disorders (Taksande, Vilhekar, Chaturvedi and Jain, 2016).

 Children with congenital birth disorders have an enormous direct impact on parents and family beginning from prenatal period through the entire life of the child (Emodi and Osifo, 2018). Parents may suddenly be confronted with life challenging dilemma to terminate their much awaited and cherished pregnancy or continue with it (Emodi and Osifo, 2018). In some cultures, the malformed child and the mother are being regarded as evil, witches, wizards or signs of impending danger (Albert, 2017). These beliefs often times prevent parents from seeking appropriate treatment or presentation at the hospital may be delayed (Singh Phanjoubam, and Devi, 2015). It may also lead to child starvation, mutilation, preferential maltreatment at home, refusal to consent for surgical procedures, abandonment in refuse dumps, or hospitals, and killing of the child in some cases (Singh et al, 2015). In some communities parents see their children with major congenital birth disorders as 'money making machines' and use them for begging alms from well-wishers (Osifo and Oku, 2019). Significant number of survivors of congenital birth disorders also suffer life-long disabilities, with birth disorders accounting for about 25.3 to 35.8 million disability-adjusted life years, worldwide (Akinlab, and Ikeola, 2019). Many congenital birth disorders can be corrected with pediatric surgery and non-surgical options (WHO, 2022). Congenital birth disorders can be prevented primarily through healthy dietary habits, vaccination, infection prevention and family welfare

services, secondarily through genetic screening and prenatal diagnosis, tertiary through early detection and management.

Study on the perceptions of child- bearing women about congenital birth disorders is paramount to nurses in developing strategic care plans for both the child with congenital birth disorders and the family

This study is aimed at determining the perception of child bearing women about the risk factors, effects, prevention and management of congenital birth disorders in Anambra State.

MATERIALS AND METHODS

A cross-sectional descriptive survey adopted for the study. The area of study was selected secondary and tertiary health facilities in Anambra State. Multi- stage sampling technique was used for the study. The sample size was 436. The instrument for data collection was a self-developed questionnaire which was validated by two experts; a pediatrician and a maternal and child health specialist. A split- half test was used to test for reliability. Ethical approval for the study was obtained from the facility research ethics committee of Chukwuemeka Odumegwu Ojukwu teaching hospital, Awka. Ethical consideration were duly observed. The data was computed in IBM SPSS and internal consistency was analyzed using Cronbach Alpha which yielded 0.800. Data Collection lasted for 6weeks. Data obtained were analyzed using, Microsoft excel, descriptive statistics and Statistical Package for Social Sciences (SPSS) version 29. Research questions were answered using frequency and percentages. Chi –square was used to test hypothesis. Level of significance in hypothesis testing were set at $p < 0.05$

RESULTS

Table 1: Showing the Socio-demographic variables of child bearing women from the selected secondary and tertiary health care facilities in Anambra State. (n= 436)

Variables	Class	Frequency (percentage)
Age (years)	15-24	73(16.7)
	25-34	260(59.6)
	35- 49	103(23.6)
Marital status	Married	391(89.7)
	Single	30(6.9)
	Separated/divorced	12(2.8)
	Widow	3(0.7)
Religion	Christianity	364(83.5)
	Islam	37(8.5)
	Traditionalist	12(2.8)
	Others	23(5.3)

Level of education	No formal education	14(3.2)
	Primary	98(22.5)
	Secondary	195(44.7)
	Tertiary	129(29.6)
Occupation	Teaching	100(22.9)
	Health worker	65(14.9)
	Farming	70(16.1)
	Petty trading	114(26.1)
	Others	87(20.0)
Parity	Primigravida	119(27.3)
	Multigravida	317(72.7)
Gestational booking	<4 months	168(38.5)
	>4 months	268(61.5)

Total = 436

From table 1 above, 59.6% of the respondents were within the age of 25-34 years; 89.7%% were married; 83.5% were Christians; 74.3%attended at least secondary school; 72.7% were multigravida; 26.1% were petty traders.

Table 2: showing mother's perception on the risk factors of congenital birth disorders on the affected Child and Family

Items on risk factors of CBD	Disagree	Agree
Unhealthy lifestyles is one of the risk factors to congenital birth disorders	113(25.9)	323(74.1)
Smoking and drinking alcohol by pregnant women during pregnancy can predispose their unborn child to congenital birth disorders.	83(19.0)	353(81.0)
Exposure of pregnant women to chemical and hazardous substances can result in birthing a child with congenital birth disorders.	50(11.5)	386(88.5)
Illicit use of drugs and non-adherence to antenatal medication regimen can lead having a child with congenital birth disorders	40(9.2)	396(90.8)
Maternal genetic composition can be a risk factor for congenital birth disorders	69(15.8)	367(84.2)
Advanced maternal age is a risk factor to congenital birth disorders	80(18.3)	356(81.7)
Maternal infection during pregnancy can result in a child with congenital birth disorders.	59(13.5)	377(86.5)

Mean score = 72.79±10.19

Table 2 shows that at least 9.2% of the mothers wrongly disagreed with all the items on perception of the risk factors of congenital birth disorders among children. Unhealthy lifestyles

(25.9%), smoking (19.0%), and advanced maternal age (18.3%) were the most wrongly understood risk factors of congenital birth disorders among the women.

Table 3: Showing mother's perception on the effect of congenital birth disorders on the affected Child and Family

Items on the Effect of CBD on the affected Child and Family	Disagree	Agree
Congenital birth disorder can result in permanent disability to the affected child.	156(35.8)	280(64.2)
A child born with congenital birth disorders suffers stigmatization from the society.	81(18.6)	355(81.4)
Financial cost of treating children with congenital birth disorders is expensive	67(15.4)	369(84.6)
Having a child with congenital birth disorders result in marital strain and unhappy family.	64(14.7)	372(85.3)
Children born with congenital birth disorders may suffer depression due to stigmatization and mockery from peers.	65(14.9)	371(85.1)
Congenital birth disorders can affect the learning capacity of the affected child.	88(20.2)	348(79.8)
Parents of a child with congenital birth disorders may be exploited by people in their quest for solution.	88(20.2)	348(79.8)
Congenital birth disorders can result in the death a child shortly after birth or later in life.	89(20.4)	347(79.6)
Congenital birth disorders can affect the physical and mental development of a child	86(19.7)	350(80.3)

Mean score = 71.50±8.94

From table 3 above, the participants seemed to perform worse in their perception of the effects of congenital birth disorders on the affected child and family as at least 14.7% of the women misunderstood each of the items in this area. The most misunderstood effects were permanent disability (35.8%), decrease in learning capacity (20.2%), and exploitation of the parents of the children with congenital birth disorders in their quest for solution (20.2%).

Table 4: Showing mother's perception on the measures for prevention of congenital birth disorders.

Items on the measures for prevention of CBDs	Disagree	Agree
Healthy lifestyles before and during pregnancy may reduce the chances of having a child with congenital birth disorders.	70(16.1)	366(83.9)
Having children at younger age may prevent congenital birth disorders	110(25.2)	326(74.8)
Adherence to antenatal medication regimen may help to curb the incidence of congenital birth disorders.	84(19.3)	352(80.7)
Prevention of preconceptional medical conditions e.g Diabetes may help to prevent congenital birth disorders.	71(16.3)	365(83.7)
Avoidance of smoking and alcohol consumption during pregnancy may reduce the chances of birthing a child with congenital birth disorders.	54(12.4)	382(87.6)
Avoidance of illicit use of drugs may help to reduce the chances developing congenital birth disorders.	66(15.1)	370(84.9)

Mean score = 73.73±11.65

Table 4 shows that Seventy (16.1%) of the women were wrong in not agreeing that healthy lifestyles could prevent congenital birth disorders. Likewise, a good proportion of the participants wrongly did not acknowledge the following as measures for prevention of congenital birth disorders: having children at younger age (25.2%); adherence to antenatal medication regimen (19.3%); prevention of preconceptional medical conditions (16.3%); avoidance of smoking and alcohol consumption during pregnancy (12.4%); and avoidance of illicit use of drugs (15.1%).

Table 5: Showing mother's perception on the effective measures necessary to managing children with congenital birth disorders.

Items on measures for managing children with Congenital birth disorders.	Disagree	Agree
Children with congenital birth disorders can be managed effectively	63(14.4)	373(85.6)
Effective management of congenital birth disorders requires the services of healthcare specialists.	0(0.0)	436(100.0)
Congenital birth disorders can treated with the use of drugs	124(28.4)	312(71.6)
Surgical procedures can be used the treat congenital birth disorders	130(29.8)	306(70.2)
There is no treatment for children with congenital birth disorders	114(26.1)	322(73.9)
Some Congenital birth disorders may be treated within a short time, while some requires a lifelong management	53(12.2)	383(87.8)

Mean score = 72.03±10.65

Table 5 shows that all the women agreed that the services of healthcare specialist are needed in the effective management of congenital birth disorders. However, between 12.2 – 29.8% of the women misunderstood each of the other measures for managing children with congenital birth disorders.

Table 6: Test of association between mother's level of perception on the risk factors of congenital birth disorders and some of their socio-demographic and clinical variables

Variable	Classes	Level (frequency (percentage))			X2	P
		Poor	Fair	Good		
Age (years)	15-24	3(4.1)	35(47.9)	47.9)	4.53	0.61
	25-34	3(2.5)	124(49.7)	133(52.7)		
	35-49	4(3.9)	50(48.5)	49(47.6)		
Marital status	Married	10(2.6)	187(47.8)	194(49.6)	4.77	0.57
	Single	0(0.0)	13(43.3)	17(56.7)		
	Separated/divorced	0(0.0)	6(50.0)	6(50.0)		
	Widow	0(0.0)	3(100.0)	0(0.0)		
Religion	Christianity	9(2.5)	175(48.1)	180(49.5)	3.85	0.69

	Islam	0(0.0)	19(51.4)	18(48.6)		
	Traditionalist	1(8.3)	5(41.7)	6(50.0)		
	Others	0(0.0)	10(43.5)	13(56.5)		
Level of education	No formal education	0(0.0)	4(28.6)	10(71.4)	8.95	0.18
	Primary	2(2.0)	49(50.0)	47(48.0)		
	Secondary	8(4.1)	94(48.2)	93(47.7)		
	Tertiary	0(0.0)	62(48.1)	67(51.9)		
Occupation	Teaching	2(2.0)	51(51.0)	47(47.0)	6.65	0.58
	Health worker	2(3.1)	30(46.2)	33(50.8)		
	Farming	0(0.0)	39(55.7)	31(44.3)		
	Petty trading	2(1.8)	51(44.7)	61(53.5)		
	Others	4(4.6)	38(43.7)	45(51.7)		
Parity	Primigravida	2(1.7)	73(61.3)	44(37.0)	11.79	<0.01*
	Multigravida	8(2.5)	136(42.9)	173(54.6)		

KEY= Significant p<0.05

The table 6 shows that mothers who were multigravida (54.0%) have more positive perception on the risk factors of congenital birth disorders than their counterparts who were primigravid (X^2=11.79, p<0.01).

There was no significant association between mothers' level of perception on the risk factors of congenital birth disorders and any of the mothers' age, marital status, religion, level of education, and occupation (p>0.05)

Table 7: Test of association between mother's level of perception on the effects of congenital birth disorders on the child and family and some of their socio-demographic and clinical variables

Variable	Classes	Level (frequency (percentage))			X2	P
		Poor	Fair	Good		
Age (years)	15-24	0(0.0)	49(67.1)	24(32.9)	1.96	0.92
	25-34	3(2.5)	176(68.7)	81(31.8)		
	35-49	1(1.0)	71(68.9)	31(30.1)		
Marital status	Married	2(0.5)	267(68.3)	122(31.2)	11.98	0.06
	Single	1(3.3)	21(70.0)	8(26.7)		
	Separated/divorced	1(8.3)	7(58.3)	4(33.3)		
	Widow	0(0.0)	1(3.3)	2(66.7)		
Religion	Christianity	3(0.8)	246(67.6)	115(31.6)	2.26	0.90
	Islam	1(2.7)	26(70.3)	10(27.0)		
	Traditionalist	0(0.0)	9(75.0)	3(25.0)		
	Others	0(0.0)	15(65.2)	8(34.8)		

Level of education	No formal education	0(0.0)	6(42.9)	8(57.1)	12.66	0.05*
	Primary	3(3.1)	68(69.4)	27(27.6)		
	Secondary	1(0.5)	138(70.8)	56(28.7)		
	Tertiary	0(0.0)	84(65.1)	45(34.9)		
Occupation	Teaching	1(1.0)	67(67.0)	32(32.0)	3.74	0.88
	Health worker	0(0.0)	47(72.3)	18(27.7)		
	Farming	1(1.4)	49(70.0)	20(28.6)		
	Petty trading	2(1.8)	73(64.0)	39(34.2)		
	Others	0(0.0)	60(69.0)	27(31.0)		
Parity	Primigravida	1(0.8)	87(73.1)	31(26.1)	2.06	0.36
	Multigravida	3(0.9)	209(65.9)	105(33.1)		

KEY

*= Significant p<0.05

The table 7 above shows a significant association between mothers' level of perception on the effects of congenital birth disorders and their level of education (X^2=12.66, p<0.05) but not with their age, marital status, religion, parity, and occupation (p>0.05).

Table 8: Test of association between mother's level of perception on the preventive measures of congenital birth disorders on the child and family and some of their socio-demographic and clinical variables

Variable	Classes	Level (frequency (percentage))			X2	P
		Poor	Fair	Good		
Age (years)	15-24	1(1.4)	38(52.1)	34(46.6)	6.59	0.36
	25-34	5(3.3)	138(52.7)	118(47.3)		
	35-49	2(1.9)	45(43.7)	56(54.4)		
Marital status	Married	8(2.0)	195(49.9)	188(48.1)	2.29	0.89
	Single	0(0.0)	18(60.0)	12(40.0)		
	Separated/divorced	0(0.0)	6(50.0)	6(50.0)		
	Widow	0(0.0)	1(33.3)	2(66.7)		
Religion	Christianity	5(1.4)	182(50.0)	177(48.6)	5.18	0.52
	Islam	1(2.7)	20(54.1)	16(43.2)		
	Traditionalist	1(8.3)	5(41.7)	6(50.0)		
	Others	1(4.3)	13(56.5)	9(39.1)		
Level of education	No formal education	1(7.1)	6(42.9)	7(50.0)	4.72	0.58
	Primary	0(0.0)	53(54.1)	45(45.9)		
	Secondary	4(2.1)	97(49.7)	94(48.2)		

	Tertiary	3(2.3)	64(49.6)	62(48.1)		
Occupation	Teaching	2(2.0)	52(52.0)	46(46.0)	9.77	0.28
	Health worker	0(0.0)	35(53.8)	30(46.2)		
	Farming	2(2.9)	39(55.7)	29(41.4)		
	Petty trading	0(0.0)	55(48.2)	59(51.8)		
	Others	4(4.6)	39(44.8)	50.6)		
Parity	Primigravida	4(3.4)	66(55.5)	49(41.2)	4.35	0.11
	Multigravida	4(1.3)	154(48.6)	159(50.2)		

From the table 8 above, showed no significant association between mothers' level of perception on preventive measures of congenital birth disorders and any of the mothers' age, marital status, religion, level of education, parity, and occupation (p>0.05).

Table 9: Test of association between mother's level of perception on the measures for managing children with congenital birth disorders and some of their socio-demographic and clinical profiles

Variable	Classes	Level (frequency (percentage))			X2	P
		Poor	Fair	Good		
Age (years)	15-24	0(0.0)	38(52.1)	35(47.9)	6.12	0.41
	25-34	6(2.7)	159(61.9)	95(37.3)		
	35-49	1(1.0)	56(54.4)	46(44.7)		
Marital status	Married	7(1.8)	227(58.1)	157(40.2)	0.97	0.99
	Single	0(0.0)	17(56.7)	13(43.3)		
	Separated/divorced	0(0.0)	7(58.3)	5(41.7)		
	Widow	0(0.0)	2(66.7)	1(33.3)		
Religion	Christianity	6(1.6)	212(58.2)	146(40.1)	1.31	0.97
	Islam	1(2.7)	21(56.8)	15(405)		
	Traditionalist	0(0.0)	6(50.0)	6(50.0)		
	Others	0(0.0)	14(60.9)	9(39.1)		
Level of education	No formal education	0(0.0)	12(85.7)	2(14.3)	8.11	0.23
	Primary	0(0.0)	58(59.2)	40(40.8)		
	Secondary	3(1.5)	110(56.6)	82(42.1)		
	Tertiary	4(3.1)	73(56.6)	52(40.3)		
Occupation	Teaching	2(2.0)	57(57)	41(41.0)	3.95	0.86
	Health worker	2(3.1)	34(52.3)	29(44.6)		
	Farming	0(0.0)	40(57.1)	30(42.9)		
	Petty trading	2(1.8)	67(58.8)	45(39.5)		
	Others	1(1.1)	55(63.2)	31(35.6)		

Parity	Primigravida	1(0.8)	75(63.0)	43(36.1)	2.03	0.36
	Multigravida	6(1.9)	178(56.2)	133(42.0)		

There was no significant association between mothers' level of perception on the measures for managing children with congenital birth disorders and any of the mothers' age, marital status, religion, level of education, parity, and occupation (p>0.05) (Table 9).

DISCUSSION

This study revealed that a total of 436 women of child-bearing age from selected secondary (61.6%) and tertiary (38.4%) health care facilities in Anambra State participated in the study. Again, that the women were mostly within the age of 25 – 34years, which could be attributed to the fact that most women and society consider women to be ready for marriage between early 20's and 30's. The study also revealed that most of the women attended secondary as their highest level of education, which could be due to financial costs of attaining tertiary education This supports the study conducted by Zhao, Shi and Li (2020) on Effects of Maternal Socio-demographic and Perinatal Factors on Birth Defects in Maternal and Child Health Hospital, Ningbo, Zhejiang province, China. The report 'revealed a significantly increased risk of infants with birth defects for the pregnant women aged below 30 years, having threatened abortion, with pregnancy-induced hypertension, low education and with placental abnormality.

In accordance with the findings of this study, the perception of child bearing women about the risk factors of congenital birth disorders was 72.79%. Unhealthy lifestyles (25.9%) and advanced maternal age (18.3%) were the most wrongly understood risk factors of congenital birth disorders among the women. This could be linked to their level of education and an increase quest to practice different lifestyles at early motherhood. The findings are similar to the report given by Sadler, (2015), that implicated maternal risk factors to congenital birth disorders include age, lifestyle, and illnesse s during pregnancy, antenatal care medication use and non-use of peri-conceptual folic acid. Yakubu, Olorunsola, Adefrakan, Adeniran, Azeez, Eromosele, Adedoyin, Odele, Haruna, Ifonlaja, Ogbuehi, Oluwakanmi, Shaibu, and Adelabu (2023) reported similar trend in their study on the perception of birth defects among women of reproductive age in rural community in Nigeria. The report stated that unprescribed medication use, smoking, alcohol, and age was identified as the major risk factors of birth defect.

The study also revealed that majority of the participants (over 70% in each items) have a positive perception that congenital birth disorders have a negative effect on the affected child and family. This could be attributed to the fact that many mothers have experienced or seen how parents and children with congenital birth disorders face challenges such as stigmatization, parental stress, economic challenges, depression and exploitation. The findings were similar to the report given by Yakubu et al. (2023), where they stated that having children with birth defect puts a tremendous financial strain on the parents and cultural beliefs have a significant impact on people's attitudes towards children with congenital birth disorders.

Findings from the study revealed that majority (over 70% for each items on prevention) of the participants have a positive perception about the effective measures necessary to prevent

congenital birth disorders. This could be because, most child bearing women do not accept and yield to the peer pressure of ignorant people about the practice of unhealthy life styles and illicit use of drugs among others. This agree with the report made by Yakubu *et al.* (2023) on the Perception of birth defects among women of reproductive age in Rural Community in Nigeria, which concluded that birth defects are preventable and more than half of the women that participated in the research had a positive perception to the preventive measures of congenital birth disorders.

The study revealed that all the women (100%) agreed that the services of healthcare specialist are needed in the effective management of congenital birth disorders. This could be attributed to the fact that most child bearing women have received effective management from healthcare specialists in the past which in turn built their confidence in the health care system. This supports the assertion made by WHO (2023), that outcomes of congenital birth disorders are improved with early detection at lower levels of the system through screening, referral and management at specialist centres in case of some issues like cardiac defects.

The findings of the study revealed that primigravid mothers had significantly more proportion of people with good perception on the risk factors of congenital birth disorders than their counterparts this supports the findings of Akinlab, and Ikeola, (2019) that congenital birth disorders increases with an increase in multiparity which could be linked to an increase quest at early stage of motherhood to acquire knowledge and practice healthy lifestyles.

The study also revealed no significant association between mothers' level of perception on the risk factors of congenital birth disorders and any of the mothers' age, marital status, religion, level of education, and occupation. This is in line with findings of Akinlab, and Ikeola, (2019), where they found no association between the mother's age and marital status with the risk factors of congenital birth disorders. The findings of this study is contrary to that of Yakubu *et al.* (2023) where a significant association exist between participants' level of education and their risk factors with those in tertiary having more positive perception. This was linked to the fact that more educated mothers are enlightened particularly regarding the use of unprescribed medication and so on. This findings is also contrary to the report by WHO (2019) that maternal age is a risk factor for abnormal intrauterine fetal development and advanced maternal age increases the risk of chromosomal abnormalities, including Down syndrome. It is also in contrast with the report by Amabe (2018) which states that advanced maternal age is known to be a risk for the occurrence of congenital anomalies, especially chromosomal anomalies caused by non-disjunction which could result in numerical chromosomal abnormalities, such as trisomy 21 (Down syndrome) or trisomy 18

There was a significant association between mothers' level of perception on the effects of congenital birth disorders and their level of education. This finding is similar to that of Yakubu *et al.* (2023) who conducted a study on the perception of women of reproductive age about congenital birth defects in rural community in Nigeria. According to their report, there appears to be an increase in awareness of the negative effects of unprescribed medication, smoking, and alcohol consumption on health among the educated mothers, which appears to be naturally and synchronously transferred to knowledge of birth defects. Emodi and Osifo (2018) reported similar trend in his study on the 'challenges of congenital malformations in Afrcan setting', where he reported that, as a result of prevalent illiteracy and ignorance, outrageous superstitious beliefs regarding children with congenital malformations are easily perpetuated by acclaimed pastors, prophets, and traditional doctors who are usually numerous in African settings. The

child is seen as evil, a witch or wizard, or a sign of impending doom for the family and community. These beliefs often prevent parents from seeking appropriate treatment and result in a wide spectrum of child abuse: delayed presentation to the hospital, masterly inactivity, starvation, mutilation, preferential maltreatment in the home, refusal to give consent for surgical procedures, discharge against medical advice, abandonment in refuse dumps and hospitals.

The findings of this study also identified no association between the mother's perception on the effects of congenital birth disorders with their age, marital status, religion, parity, and occupation. This is contrary to the findings of Zhao, Shi and Li (2020) on 'Effects of Maternal Socio-demographic and Perinatal Factors on Birth Defects in Maternal and Child Health Hospital, Ningbo, Zhejiang province, China'. The study revealed a Univariate analysis that the cases had significantly higher ratios of nonlocal census register, low education, aged less than 30 years. Majumder and Kumar (2021) on 'the Effect of Socio-demographic factors on Different Congenital Disorders in the State of West Bendgal, Indian', supported the trend in his report that the effect of congenital birth disorders like down syndrome seemed to be associated with age, ethnicity, parental addiction, especially smoking, while Turner syndrome is associated with ethnicity and gender. Abbey, Oloyode, Bassey, Kejeh, Otaigbe, Opara, Eneh and Akani (2018), in Niger Delta area, Nigeria also contrary to the findings of this study reported that abundant environmental teratogens that contaminate the Delta can cause congenital abnormalities for inhabitants or those working there, through preconception mutagenic action (maternal or paternal) giving rise to chromosomal abnormalities and syndromes or through postconception teratogenic action in pregnancy, depending on the nature of the teratogen and the precise timing of exposure – embryonic or fetal period. Emodi and Osifo (2018) reported that religion and cultural practices have a significant effect on the preventive measures for congenital birth disorders.

The study revealed no significant association between mothers' level of perception on preventive measures of congenital birth disorders and any of the mothers' age, marital status, and religion, level of education, parity, and occupation. This is in line with the findings of Akinlab, and Ikeola, (2019), where he reported no association between the perception on preventive measures of congenital birth disorders with marriage and parity.

This finding is contrary to the findings of Yakubu *et al.* (2023) in rural communities in Nigeria, where he reported a significant association between mother's perceptions of preventive measures of congenital birth disorders with their level of education. He reported that mothers with tertiary education were most knowledgeable about the preventive measures of congenital birth disorders. This is also consistent with the findings of Lawal *et al.* (2017), which showed that mothers with more education than 12 years have a better degree of knowledge about birth abnormalities. However Bello, Acqua, Quartey and Hughton (2013) found no significant association between level education and preventive measures in Accra Ghana.

This findings is also contrary to that of Yakubu *et al* (2023) where he reported a significant association between the participant's age and their attitude towards prevention strategies of congenital birth disorders. In his findings, the age 35-39 years appeared to have the best attitude whereas older group appeared to have worst attitude which was linked to older group been ingrained in the conventional way of thinking. Abbey *et al*. (2018), in Niger Delta area, Nigeria reported that congenital birth. The findings of this study revealed no significant association between mothers' level of perception on the measures for managing children with

congenital birth disorders and any of the mothers' age, marital status, and religion, level of education, parity, and occupation. In line with findings of this study, Akinlab, and Ikeola, (2019) in their study on 'prevalence, risk factors and outcome of congenital anomalies in Ogbomoso', Nigeria reported no association between the measures of treatment of congenital birth disorders and mother's and occupation. Contrary to the findings of this study, Bouman, (2019) in his study on 'the psychological adjustment of children with major congenital anomalies, reported that the decision to offer surgical intervention for a child whose quality of life after survival may be very poor is one of the dilemma that some uneducated mothers, pediatric surgeons and their team are often confronted with in the newborn period. This emphasize the value of education for better perception and widespread management. Farmer, Sitkin, Lofberg, Donkor, and Ozgediz (2015) in his study on 'surgical interventions for congenital anomalies reported that, delayed presentation and consent for surgery because of financial constraints among others are more among multiparous and single mothers and they contribute to infant mortality as a result of congenital birth disorders. In the same trend, Osifo and Oku, (2019) in his study on 'the causes, spectrum and effect of surgical child abuse and neglect in Nigeria city', reported that due to increased prevalent of erroneous beliefs about congenital malformations, the child with congenital birth disorders may be abandoned in the hospital by parents, discharged against medical advice, or even killed.

IMPLICATION OF FINDINGS

Findings of this study revealed that although the perception of child bearing women about congenital birth disorders is positive, some mothers still have negative perception. Hence, there is need for increased sensitization about the risk factors, effects, prevention and management of congenital birth disorders. There is also need to encourage health education programs at rural and community level which would help women to adjust their lifestyles which is one of the prevailing risk factors of congenital birth disorders and discourage stigmatization of children affected by this disorder and cultures that promote it.

CONCLUSION

The study concluded that the overall perception of congenital birth disorders among the respondents was relatively good, as it was also observed that most child bearing women in Anambra State have a positive perception about the risk factors, effects, management and prevention of congenital birth disorder.

RECOMMENDATIONS

1. Early antenatal registration and regular antenatal checkups should be encouraged

2. Periconceptional folate consumption should be advised early, during marriage counselling so that parents will understand the need when they plan to have children.

3. Measures should be taken to make diagnosis of congenital birth disorders early so that referral can be made for early intervention.

LIMITATIONS AND FURTHER RESEARCH

Geographical barrier, time constraint, respondents' unpredictable behavior and lack of funds were limitations faced by the researcher during the course of the study.

It is highly recommended that similar study on the same subject should be replicated involving the tertiary, secondary and primary health care facilities

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