Nigerian Association of Clinical Psychologists (NACP)

Nigerian Journal of Clinical Psychology (NJCP)

ISSN: 0189-2304
E-ISSN: 2971-6306

2024, Vol.14, No. 1, 119 - 138
http://nacpjournal.org.ng
nacpjournals@gmail.com
DOI: 10.5281/zenodo.13312135

RISK PERCEPTION AND PERCEIVED STIGMA AS PREDICTORS OF CAESEREAN SECTION REFUSAL AMONG PREGNANT WOMEN IN UYO

Hope J. Bassey[1], Otu O. Essien[1], Mfon E. Ineme[1] & Gboyega E. Abikoye[1]
Department of Psychology, University of Uyo, Uyo, Akwa Ibom State, Nigeria.
(Correspondence email: gboyegaabikoye@uniuyo.edu.ng, hopebassey17@gmail.com)

ABSTRACT

Child bearing is a great experience that most women would love to take part in. However, in some Nigerian societies, vaginal delivery is usually accepted. Caesarean delivery is not always preferred even in cases of emergencies at times. This has led to increase in maternal mortality rate. On this note, the study examines risk perception and perceived stigma as predictors of caesarean section refusal among pregnant women. The research was a cross sectional study done in two hospitals. One hundred and seventy-eight (178) pregnant women purposively selected from the antenatal clinics of two hospitals participated in the study. Three instruments were revalidated and used for data collection. The 15-item Caesarean Section Refusal scale with a Cronbach Alpha of .89 established. The 21-item Perceived Stigma and Devaluation Scale with the Cronbach Alpha of .83 obtained. A 9-item Risk Perception Scale used to test risk perception with .75 validity. Three (3) hypotheses were generated and tested using multiple regression and correlation. Results revealed that risk perception and perceived stigma jointly predicted caesarean section refusal and was significant ($R=0.14$, $p<.05$). Independently, risk perception was significant as it predicted caesarean section refusal ($\beta=.39$, $p<.05$). However, perceived stigma was not significant ($\beta=-.05$, $p>.05$).The findings were discussed in relation to the literature reviewed. It was recommended that various stakeholders should sensitize the society on caesarean section, why and when it is necessary

Key words: *Caesarean section refusal, Risk perception, Perceived stigma, Healthcare decision-making, Pregnant women*

INTRODUCTION

Depending on the circumstances of the pregnancy, pregnant women either deliver through caesarean section (CS) or vaginal delivery. According to the Joint Policy Statement (2008), a vaginal birth is considered a normal birth when the infant is born head first through the vagina (birth canal). The normal, or unassisted, birth is spontaneous in onset, with low risk at the start of labour and remaining so throughout labour and delivery. On the other hand, caesarean or assisted birth is the instrumental type of delivery that makes use of forceps or a vacuum cup to deliver babies in cases of prolonged labour, maternal exhaustion, abnormal position of the foetus' head, and other maternal medical conditions such as hypertension, diabetes, etc. (Fraser & Cooper, 2003). However, to this end, a caesarean section is the recommended birth procedure in situations where vaginal delivery poses a risk to both the mother and the baby, though the fear of the surgical process has a kind of before-and-after psychological effect like the risk and stigma effect that may deter or hesitate some mothers from undergoing the experience.

It is also an alternative for women for whom vaginal delivery is not feasible. It involves the delivery of a baby through an incision made on the uterus (Ezeonu, Ekwedigwe, Isikhuemen, Eli-boh, Onoh, Lawani, Ajah,& Dimejesi, 2017). Thus, implying that, caesarean birth is said to be life-saving for both mother and foetus, and its value has increased over the decades, although specific indications for its use have changed.

Categorically, the major types of caesarean section are emergency and elective or planned CS. Elective or planned caesarean section is done when the obstetrician decides with the pregnant woman on a caesarean delivery (CD) prior to labour for reasons such as previous CS on multiple pregnancies. Emergency C-section on the other hand is a surgical procedure that is performed when there is an immediate threat to the life of a foetus and\woman. It is indicated by cord prolapsed (when the umbilical cord slips down in front of the baby after the waters have broken) and compression and failure of labour to progress (Pajntar, 2015; Soltanifar & Russell, 2012).

Caesarean section is done to protect maternal and foetal health. Women who go through it are less likely to suffer from urinary incontinence. It is more convenient and reduces risk of the baby sustaining injuries during birth (Rahmati-Najarkolaei, Tavafian, Fesharaki, Jafari, 2015; WHO, 2015). A caesarean section may also be associated with a blood transfusion and a longer hospital stay. Moreover, mothers are less likely

to initiate breastfeeding immediately after delivery due to postoperative pain. A caesarean section can result in low post-birth weight and also affect bonding between the mother and the baby.

There are many other underlying complications, like headaches from anaesthesia, particularly in settings that lack the facilities to conduct safe surgeries or treat potential complications (Rahmati-Najarkolaei et al., 2015; WHO, 2015). In all, it is a life saving procedure. The rate of caesarean section in developed countries is increasing as there has been a higher rate of acceptability over time. It has recently increased drastically in developed and some developing countries, with caesarean section on maternal request (without medical indication) contributing greatly to the increase (Pajntar, 2015; WHO, 2015; Yilmaz & Beji, 2013).

The reasons for the rise in maternal requests are perceived medical benefits and social, cultural, physiological, and psychological factors (Bozet et al., 2016; Pajntar, 2015). On the other hand, developing countries are struggling with the issue of non-acceptance or rejection of CS, even in the face of inherent danger or risk. Research over the years has shown that despite the awareness of caesarean sections, there are still women who reject them (Ezeonu, Ekwedigwe, Isikhuemen, Eli-boh, Onoh, Lawani, Ajah,& Dimejesi, 2017).

Caesarean section refusal is the disapproval or non-acceptance of surgical delivery of the baby through the abdominal and uterine walls (Yilmaz & Beji 2013). This negative perception has led to underutilization of the procedure. A study revealed that women's knowledge of caesarean section complications, surgical fears, number of pregnancies, physician's persuasion, and socio-economic status affect their choice of caesarean section. (Yousefi, Mirzaee, Khosravi, & Khazaee, 2013). Traditionally, some Nigerian pregnant women are unwilling to have caesarean delivery because of the general belief that going through caesarean delivery instead of abdominal delivery makes the woman a reproductive failure (Ilesanmi, Odukogbe, & Olaleye, 1997) regardless of the feasibility of vaginal birth after caesarean section and the decreasing mortality from caesarean sections. Imperative to the average pregnant woman, irrespective of her level of education and parity, is caesarean delivery.

Available reports on knowledge of caesarean section amongst women are mainly from tertiary health facilities situated in cities and in the southern parts of the country, while little is known about the perception and attitude of rural women from Northern Nigeria towards caesarean birth. A woman's refusal to have a caesarean section can create a challenging situation for obstetric care providers (Ribak, Harley, Ohel, Sergienko, Wiznitzer, & Sheiner,

2011). In addition, refusing caesarean delivery, especially when medically indicated, can be a problem for the woman herself. A study from Nigeria (Akinola, Fabamwo,& Tayo, 2017) reported a caesarean section refusal rate of 11.6% among all caesarean deliveries. Pregnant women turn down caesarean sections for various reasons, which include: risk perception (maternal fear of death during surgery based on the deaths of close relatives; past unpleasant experiences in previous caesarean sections and unpleasant stories that they had heard from other women; not being able to give birth through vaginal delivery; scars that are at high risk of subsequent uterine rupture; desire to experience vaginal delivery; complaints of the uncaring or casual attitude of the doctors when giving the information that may lead to death; maternal and foetal hazards; complications, etc) (Ajeeti & Jay Deep, 2011) and perceived stigma (derided by their friends and relatives for consenting to deliver by caesarian section; labeled as a failure of an important reproductive function, taboo, a sign of unfaithfulness, family disproval over their womanhood, which makes them a laughing stock for other women who have delivered vaginally, etc.), which can lead to depression and low self-esteem (Ajeeti & Jay Deep, 2011). Many pregnant women still hesitate to seek or accept a caesarean section when the need arises, considering the potential risks throughout the course of surgery. For example, some people are afraid of the adverse outcomes of surgical procedures.

Results of a study done by Aziken, Omo-Aghoja, & Okonofua (2007) indicated that 59% of the women are willing to accept caesarean section if indicated, with up to 81% willing to wait and accept only if they or their babies are at risk of death. This suggests that the need to preserve their safety and that of an infant is the major determinant of women's acceptance of caesarean section in Nigeria. It was of interest that as many as 19% of women would still reject caesarean section, even at the risk of their lives or that of their babies.

Risk is defined as a situation or event in which something of human value (including people themselves) is at stake and in which the outcome is uncertain (Rosa, 2003). Risk perceptions refer to people's intuitive evaluations of hazards they are or might be exposed to (Rohrmann, 2008), including a multitude of undesirable effects that people associate with a specific cause (Rohrmann&Renn,2000).Risk perceptions are interpretations of the world, the evaluation of which is influenced by numerous individual and societal factors. These go beyond the classic hazard attributes and are based on experiences, beliefs, attitudes, judgments, and feelings, as well as wider social, cultural, and institutional processes (Pidgeon, 1998).

Risk perception is a subjective assessment of the probability of the occurrence of a specific type of adversity and the extent to which one is concerned with its consequences (Sjoberg, Moen, &Rundmo, 2004). The perception of risk usually involves characteristics beyond those of the individual itself and may be evaluated as a social and cultural construct that reflects values, symbols, history, and ideology (Weinstein, 1989). The stronger one's belief that a particular risk event is likely to occur, the greater that person's sense of vulnerability.

There are three dimensions of risk perception: perceived likelihood (the probability that one will be harmed by the hazard), perceived susceptibility (an individual's constitutional vulnerability to the hazard), and perceived severity (the extent of harm a hazard could cause). Norris et al. (2002) reviewed results from 160 distinct samples comprising over 60,000 individuals who experienced 102 different risk events. All exhibited differential levels of psychological distress, behavioral changes, and physiological illness.

The researchers concluded that a high level of risk perception could lead to chronic stress and its attendant negative effects on well-being. The relevant literature, however, reports conflicting findings regarding the association between actual and perceived risks, specifically regarding exposure to extreme violence, such as war and terror attacks. Some studies report a significant correlation between exposure level to a specific risk and negative psychological and physiological reactions thereto (Benzion, Shahrabani, & Shavit, 2009; Norris et al., 2002; Palgie et al., 2010).

Caesarean delivery refusal or rejection rates are also quite high because of the stigma attached to not having a natural birth. It is also a society that does not talk about the dangers of giving birth and still doesn't invest enough money in high-quality maternity services.

According to Goffman(1963), stigma isan attribute that is deeply discrediting. It is further noted that this attribute reduces the individual from a whole and usual person to a tainted, discredited one (Goffman, 1963). This suggests a socially constructed nature of stigma, in which individuals may become devalued in a particular social context. Goffman further noted that this fear of becoming "discredited" can have major impacts on people's lives, leading them to conceal the stigmatised condition or avoid situations in which they might be stigmatised (Link, Streening, Cullen, Shrout, and Dohrenwend, 1989). In this case, the affected group is people with problems like mental illnesses, diseases, ill-fated conditions, etc. There are different aspects of stigma, such as perceived stigma, self-stigmatisation, and experienced stigma, and there are many levels

at which stigma may operate (Link & Phelan, 2001; Evans-Lacko, Brohan, Mojtabai, Thornicroft, & 2012).

However, the concept of perceived discrimination does not appear to be adequately covered by existing definitions of stigma. This concept refers back to Goffman's early notion of the fear of becoming personally 'discredited' based on a stigmatising condition and the associated negative consequences (Evans-Lacko, Brohan, Mojtabai, Thornicroft, and 2012), but draws upon the more contemporary concept of discrimination (unfair treatment).

Stigma is a major social determinant of health that drives morbidity, mortality, and health disparities (Hatzenbuehler, Phelan, & Link, 2013) and has been described by the World Health Organisation as a 'hidden' burden of disease (World Health Organisation, 2018). Stigma is characterised by cognitive, emotional, and behavioural components and can be reflected both in attitudes, often conceptualised as perceived, anticipated, or internalised stigmas, and experiences, including enacted or experienced stigmas affecting a particular trait, among individuals (Earnshaw, Smith, Shuper, Cornman, and Fisher, 2014).

Perceived stigma refers to a person's understanding of how others may act towards, and think or feel about, an individual with a certain trait or identity (Zelaya, Sivaran, Srikrishnan, Suniti, and Celentuno, 2012). Perceived stigma is the belief that the public holds negative attitudes towards people with issues or problems and the fear or expectation that others will behave in a discriminating way towards them, while experienced stigma refers to instances of unfair treatment or discrimination (Gabriel & Violato, 2010).

Perceived stigma is the fear of being discriminated against or the fear of enacting stigma, and it arises from society's beliefs (Lebel, 2008). Anticipated stigma refers to expectations of stigma experiences happening in the future (Earnshaw, Smith, Chaudour, Amico, and Copenhaver, 2013). Internalised stigma refers to the individual-level process of awareness, acceptance, and application of stigma (to oneself) (Muoz, Sanz, Pérez-Santos, Quiroga, 2011; Sheehan, Nieweglowski, Corrigan, 2017; Phillips, Moneyham, Tavakoli, 2011). Finally, experienced or enacted stigma refers to discriminatory acts or behaviours (Phillips, Moneyham, and Tavakoli, 2011).

Perceived stigma has been historically defined as erroneous and negative social attitudes towards a distinguishing physical or behavioural characteristic of a person or group (Goffman, 1986). Perceived stigma adversely impacts individual health outcomes as well as related 'life chances', including educational opportunities, employment, housing, and social

relationships. Stigma has also been shown to negatively affect help-seeking and treatment-seeking behaviours, hindering the ability of public health agencies to treat and prevent stigmatised health conditions (Weiss, 2008). Different literature reported that perceived stigma affects many domains of the lives of people who have performed caesarean sections, such as impacts on self-esteem (Ritzher & Phelan, 2008), recovery from the illness, social relationships (Corrigan, Watson, & Barr, 2009), treatment adherence, willingness to seek help, persistent suffering, disability, and economic loss, and difficulties of accessing housing and employment (Vogel, Wade, & Hackler, 2007). These impacts can worsen a woman's condition after childbearing (Vogel, Wade, & Hackler, 2007).

Other researchers have also discovered that there are other factors that also predict Caesarean section refusal, like age, gender, occupation, etc. (Zahan, 2010). Thus, in view of the above, this study investigates whether such variables as risk perception and perceived stigma would predict caesarean section refusal among pregnant women with its main focus in Uyo.

Research has shown that most of the caesarean sections done in Nigeria are linked to obstetric emergencies that could have been prevented by earlier medical care (Onoh, Eze, Ezeonu, Lawani, Iyoke, Nkwo, 2015). According to World Health Organization(2018),Nigeria has a high maternal mortality rate. For every 1,000 birth, Akwa Ibom records 42 infant deaths and maternal mortality rate ranks among the worst in the country with 279 deaths per 100,000 births linked to low patronage of skilled medical personnel to avoid surgical delivery (World Health Organisation, 2018). With this,some pregnant women still reject caesarean delivery today, even when it could save lives. With birth plans and awareness in place, many pregnant women opt to deliver with an unskilled birth attendant in a setting other than a hospital because of various reasons. Delays in seeking treatment results in women attempting to access care at healthcare facilities only after life-threatening complications develop.However, it is necessary to find out what drives pregnant women to decline caesarean section even in the midst of danger. In this study, two variables were studied in relation to caesarean section refusal in pregnant women.

Over the years, it has been observed that risk perception such as fears associated with having a caesarean section may further delay a woman's decision to seek treatment. Common fears associated with having a caesarean section-fear of death, preoperative scar, stress, pain, complications of surgery, long recovery period etc(WHO, 2013; Bank, 2016; Betran, Moller, Zhang, &Gulmezoglu, 2016). It has also

been observed too that once a woman goes through caesarean section, she faces stigmatization from the society, fellow women, relations etc like ; Being labeled a reproductive failure, loss of womanhood, mocked by other women and society at large, a sign of future infertility etc. Studying risk perception and perceived stigma as predictors of caesarean section refusal among pregnant women is a crucial step in reducing maternal and infant mortality as a result of caesarean section refusal.This study also reveal the extent which these variables play a role in caesarean section refusal with focus on pregnant women in Uyo.. The objective of this study is to contribute and explore new areas in the body of knowledge which previous researchers have wittingly or unwittingly left untouched. The contributions of this study will probably open a channel for further investigations into related areas. The study which is designed to investigate risk perception and perceived stigma as predictors of caesarean section refusal among pregnant women. The following hypotheses were stated and tested:

- Risk perception will predict caesarean section refusal among pregnant women
- Perceived stigma will predict Caesarean section refusal among pregnant women
- Risk perception and perceived stigma will jointly predict caesarean section refusal among pregnant women

METHOD

Participants/Setting

The study was conducted in two hospitals within Uyo, Akwa Ibom State. This includes, University of Uyo Teaching Hospital, Abak road and St. Luke's Hospital at Nwainba. The study population of 178 participants was purposively selected from the antenatal clinics of the two hospitals. The study comprised of women only (pregnant ones) with their ages ranging from 16 years and above.

Instruments

A structured questionnaire was used to collect data from the pregnant women. The questionnaire consists of four sections.

Section A : Consisted of socio - demographic variable of interest to this study include: age, gender, level of education, employment and marital status.

Section B: Caesarean Section Refusal Scale: The Caesarean section preference and non-acceptance scale by Adageba et al. (2008), reviewed by Ashimi et al. (2013),Moaji et al.(2011), Mungrue et al. (2010), and Nisar et al. (2009) is a 21 item questionnaire on a five point likert scale was used to measure caesarean section refusal with a cronbach alpha of .70. It was re-evaluated to suit the culture and population and a conbaches alpha of .89 was obtained.

Section C: Risk Perception Questionnaire (RPQ): The 9-item visual scale of the Pregnancy Risk Perception Questionnaire (PRPQ) by Heaman and Gupton, 2009 was used and reevaluated to measure risk perception of caesarean section and to suit this population. This questionnaire consists of two sub scales that involves, five questions about risk for baby and four questions about risk for self (mother), yielding a score ranging from 0 to 100. This questionnaire consists of two sub scales, mean scores for each subscale and total scale was calculated, higher scores demonstrate higher levels of perceived risk. Reliability processes indicated that the PRPQ with Cronbach's alpha 0.87 for the total scale is reliable (Heaman & Gupton,2009). After reevaluation, the cronbaches alpha of .75 was obtained.

Section D: Perceived Stigma Scale: The revised perceived stigma scale by John, Leslie Heinberg, Brett, Doctor & James(2006) was adapted and re-evaluated to measure perceived stigma in caesarean section refusal.The PSQ is a 21-item tool which measures the extent to which a person believes that most people will devalue or discriminate against someone with a mental illness. The scale has three subscales;

Absence of friendly behavior, Confused/staring behavior and Hostile behavior with internal consistency reliability ranging from .88 to .93. PSQ is measured on a 5-point Likert scale with possible scores ranging from 1 to 5 ((never, almost never, sometimes, often, always); (1) never, (2) almost never, (3) sometimes, (4) often and (5) always. The total score is computed by adding all the item responses and dividing by the total number of items (items from subscale 1 are reverse coded because they are positively worded). Higher item scores always indicate greater perception of stigmatization behaviour. A Cronbach's alpha value of 0.93 was obtained. This scale has been widely used across the world including Africa and has excellent psychometric properties. After reevaluation, the scale remained valid at .83 cronbach alpha.

Informed consent

Informed consent was obtained from all individual participants included in the study.

Procedure

The study adopted a cross sectional design. A cross-sectional design is a type of research design in which you collect data from many different individuals at a single point in time. The study examined risk perception, perceived stigma as predictors of caesarean section refusal among pregnant women. A pilot study was conducted in Dyme clinic and maternity, Uyo to re-evaluate the instrument to fit in the population and culture. The participants consists of 30 pregnant women randomly selected from Dyme clinic and maternity in Uyo. Participants filled in the questionnaire and data was analyzed and was tested for reliability and validity.

For the main study, the researcher sought for ethical approval from the appropriate body, Akwa Ibom State Ministry of Health which was granted. Once approval was granted, the researcher met with the respondents (pregnant women) who were purposively selected on their various antenatal clinic day in the different hospitals, established rapport with them, while introducing the purpose of the study to them individually, assuring them of the confidentiality of all the information they might supply and keeping to every ethical condition. Questionnaires were administered to them. After the collection of questionnaires in each hospital, pregnant women were briefed generally with the aim of psycho educating them on caesarean section; emphasizing on the women's expectations and emotions about fear associated with caesarean delivery, expression of feelings, and providing a structure for women to identify and work through distressing components of caesarean delivery. Afterwards, responses on the questionnaires were recorded and analyzed.

Statistical Analysis

Data collected was analyzed using multiple regression to test the two hypothesis. Also, correlational analysis was further used to was used to test the relationship between the various variables and the demographics as well

Results

Table 1: Demographic Characteristic and Mean Performance of Participants on Caesarean Section Refusal Scale (N=178)

Variables	F (%)	Mean (SD)	Std Error Mean
Age			
16-20	12(6.7)	39.83(13.16)	3.8
21-25	78(43.8)	40.39(13.4)	1.52
26-30	37(20.8)	47.05(14.5)	2.38
31-35	45(24.7)	35.9(12.6)	1.9
36 and above	6(3.4)	32.83(3.4)	1.4
TOTAL	178		
Level of Education			
FSLC	38(21.3)	41.37(14.27)	1.3
SSCE	20(11.2)	47.60(14.45)	3.2
Tertiary	120(67.4)	33.89(8.41)	1.3
TOTAL	178		
Employment Status			
Employed	94(52.8)	35.52(11.28)	1.23
Unemployed	84(47.2)	44.89(14.32)	1.47
TOTAL	178		
Caesarean Refusal			
Low	110(61.8)	30.51(3.6)	.34
High	68(38.2)	56.57(7.3)	.89
TOTAL	178		

The result from the table one above shows the demographic characteristic and performances of participants in the caesarean refusal scale. From the table above, the age of the participants ranged from 16 and above with a mean age of 26.7 of the total participants. The table also reveals that38 participants (21%) were FSLC holders, 20 participants (11.2%) were SSCE and (120 participants)67.4% were graduates. The table further revealed that female participants who were employed had a lower means score, 35.5 while those who were unemployed had a mean score of 44.9 on the caesarean section refusal scale. Also, the table reveals that participants between the ages of 26-30 had higher score on the caesarean section scale(47.0) and those from age 36 and above scored low(32.8). The total number of participants who scored high on the caesarean section refusal scale are 110(61.8%) while those

who scored low was 68 (38.2%).Participants in SSCE had higher mean scores(47.6) in the caeserean section scale while those in the tertiary scored lower(33.8). Similarly, the table also shows that the slight difference between the number participants who scored higher in Caesarean Section Refusal Scale 38.2% and those who scored lower 61.8%.

Table 2: Showing the zero Order correlation between demographic variables, Perceived stigma and Risk Perception on caesarean section refusal (N=178)

	1	2	3	4	5
Age	1				
Employment	.99	1			
Level of education	-.067	.237	1		
Risk perception	.11	-.22**	.28**	1	
Perceived stigma	.07	.08	.19**	.25**	1
CSRefusal	**-.11**	**-.34****	**.18***	**.37****	**.044**

***** 0.01 level of significance***
****0.05 level of significance***

The table above shows the relationship between the study variable. From the table, Employment Status (-.34), level of education (-.18) and risk perception (.37) had a significant relationship with caesarean section. The table also shows a negative relationship between age and caesarean section refusal(-.11); a negative relationship between employment(-.34); a positive relationship between level of education and caesarean section refusal (.18);a positive relationship between risk perception and caesarean section refusal (.37) and a positive relationship between perceived stigma and caesarean section refusal.

Testing of hypothesis

Hypothesis tested in this study stated that, risk perception will predict Caeserean section refusal; perceived stigma will predict caesarean section refusal. Risk perception and perceived stigma will jointly predict caesarean section refusal among pregnant women in Uyo. These hypothesis were tested using multiple regressions and the result is presented in Table 3 below.

Table 3: Showing the step-wise multiple regression analysis between demographic Variables, Perceived stigma and Risk Perception on caesarean section refusal (N=178)

	B	SE	Beta	t	R	R^2	F	Sig
Step 1					**.377**	**0.14**	**14.5**	**.00**
Risk Perception	.39	.07	.39	5.34				.00
Perceived stigma	-.06	.09	-.05	-.69				.49
Step 2					**.49**	**.24**	**10.9**	**.00**
Age	-.28	.17	-.11	-1.65				.14
Employment Status	-8.3	2.0	-.31	-4.23				.00
Level of Education	2.8	1.2	.17	2.3				.024

* p <0.05 level (2-tailed).

The Table 3 shows that perceived stigma and risk perception jointly (R= .377, R^2 = 0.14, 14% p < .05) are significant predictors of caesarean section refusal among pregnant women. This implies that Perceived stigma and risk perception do have a joint predictive influence on caesarean section refusal. Thus, the hypothesis which states that perceive stigma and Risk perception will jointly predict caesarean section refusal among pregnant women was accepted.

The table also reveals that risk perception (Beta=.39 p<.05) significantly predict caesarean refusal;Thus the hypothesis that risk perception will predict caesarean section refusal among pregnant women was accepted.Perceived stigma (Beta=-.05 p>.05) did not have any predictive influence on caesarean section refusal,not significant. Thus,the hypothesis that perceived stigma will predict caesarean section refusal was rejected.

Discussion of findings

The results of the data analysis reveals that there is a joint prediction of perceived stigma and risk perception on caesarean section refusal .Thus the result has confirmed the hypotheses which stated that perceived stigma and risky will significantly predict caesarean section refusal. These findings are in line with previous researches that revealed that perceived stigma and risk perception can jointly predict caesarean section refusal.

Previous researches like Souza, Galmezoglu, Lumbiganon, Laopaiboon, Carroli & Fawole, (2010); and Richard & Zongo, (2014) has confirmed this findings. Studies by Souza, Galmezoglu, Lumbiganon, Laopaiboon, Carroli & Fawole, (2010); and Richard & Zongo, (2014), from the Upper West Region of Ghana

which shares a border with Burkina Faso, and the regional hospital has reported cases of maternal mortality from Burkina Faso as a result of caesarean section refusal out of fear. Another study by Harrison & Goldenberg, (2016), also agreed to the fact some of the risks pregnant women perceive are fear of pain, fear of complications etc.These fears may prevent women from delivering in hospitals when they perceive a higher chance of caesarean section and they may delay presentation for emergency obstetric care required at the individual maternal level to prevent peri-natal and neonatal mortality. Findings in a study on the preference for vaginal delivery, done in different parts of Nigeria, show stigma as one of the factors that increases decline for caesarean section (Sunday-Adeoye & Kalu,2011; Aziken, Omo-Aghoja & Okonofua, 2007). In another study by Storksen, Garthus-niegel, Vangen & Eberhard-Gran, (2013) a previous negative birth experience (individual or from others which resulted in complications and death; stigma) was the factor most strongly associated with an increased risk of developing fear for caesarean section. The result also shows perceived stigma did not independently predict caesarean section refusal; thus rejecting the hypothesis that perceived stigma will independently predict caesarean section refusal. This is in line with findings by Thompson, (2013) whose findings indicated that stigma was not a strong predictor of caesarean section refusal as women were worried about other factors like high risk and cost of surgery.

Also, risk perception independently predicted caesarean section refusal. This is in line with findings by Wiklund, Edman, Ryding & Andolf, (2008), which indicates that risk perception like childbirth-related anxiety has been suggested to be a main reason for the decline in elective caesarean section refusal. Few studies have assessed the association between risk perception and elective caesarean section (Domingues, Dias, Nakamura-Pereira, Torres, d'Orsi& Pereira, 2014) and results have shown that risk perception, especially surgical phobia and fear of death predicts caesarean section refusal. Also, studies by Amiegheme, Adeyemo, Onasoga,(2016) also indicated that risk like fear of death and pain were the main reasons women reject caesarean section.

In summary, the results also indicated that other factors like educational levelcould have also influenced the outcome. Perceived stigma did not predict caesarean section refusal as participants with SSCE had higher mean scores of on the caesarean section scale and those in the tertiary(graduates) had lower mean scores which means the more one is exposed or educated,the more they are likely to accept caesarean section and vice versa. This confirms studies by Audrey & Aiden(2016) which

showed that patient education level has been shown to affect health care outcomes in a variety of clinical contexts.There was a higher rate of planned Caesarean section in women with some college or university education and in women with a university degree. Higher education /more information appears to be associated with an increased rate of elective repeat Caesarean section,contrary to caesarean section refusal.According to Khan & Zaman (2010) , the higher education is directly associated with CS. Supporting the previous claim, Gilbert, Benjamin, and Abenhaim (2010) states that, higher education appears to be associated with an increased rate of elective repeat Caesarean sections. The result also shows that those between the ages 26 -30 had higher mean scores as compared to those from 36 and above which means as one gets older, he/she may likely accept caesarean section and younger people may likely reject caesarean section more. This also confirms the study by Than and Zaman(2010) that the younger women are more likely to refuse caesarean section than older ones The result for unemployment high mean score of and employment mean score ;this means that the unemployed are more likely to reject caesarean section than the employed. This also confirms studies by Gilbert, Benjamin, and Abenhaim (2010),whose results showed that demographic variables like unemployment may likely affect the acceptance of caesarean section.

Conclusion and Recommendation

In conclusion, this study examined risk perception, perceived stigma as predictors of caesarean section refusal among pregnant women in Uyo. The result of the study and the result of this study highlighted that risk perception predicted caesarean section and perceived stigma did not. It also showed that risk perception and perceived stigma jointly predicted caesarean section refusal.

Based on the findings which showed that risk perception predicted caeserean section refusal, it is recommended that various stakeholders especially in the medical field and beyond the need to sensitive and educate people on caesarean section delivery as it can be helpful not just in times of emergencies. This involves the government, NGOs, churches etc.This can be done on the social media as well, through jingles, short messages and prompts that bothers CS delivery and it's benefits as perceived risk(fear of complications/death etc) is one of the main triggers of Caeserean section refusal.

Once a decision has been made that the patient has capacity to refuse treatment and she is not unduly influenced by anyone else, it is critical that she and her partner or close support person are fully aware of the potential consequences to the patient and her unborn baby by refusing a

CS. Psychologists should also be involved in the antenatal wards because apart from issues of CS rejection; anxiety, depression and other emotional problems could arise as a result of the pregnancy.

DECLARATIONS

Originality: We declare that this manuscript titled 'Risk Perception and Perceived Stigma as Predictors of Caesarean Section Refusal among Pregnant women in Uyo' is an original work and has not been submitted or published elsewhere. The Authors have reviewed and approved the final version of the manuscript.

Funding: No funding was received for this study.

Ethical Approval**: Because of the nature of the article (systematic review) meant that ethical approval was not needed for this research**.

Competing Interest: The authors of this article have no competing interests to declare.

Consent for Publication: The Author declares that any person named as co-authors of the contribution is aware and has agreed to being so named.

Data, Material availability: Available from the corresponding author on reasonable request.

Authors Contribution Statement: The authors confirm contribution to the paper as follows: study conception, draft manuscript preparation and design: Hope J. Bassey and Gboyega E. Abikoye; draft manuscript preparation and data collection: Hope J. Bassey, Gboyega E. Abikoye, Mfon E. Ineme and Otu O. Essien; Data analysis and interpretation of results: Hope J. Bassey, Gboyega E. Abikoye, and Mfon E. Ineme. All authors reviewed the results and approved the final version of the manuscript

REFERENCES

Amiegheme, E. F, Adeyemi, F. O & Onasoga, O. A. (2016). Perception of Pregnant women towards Caesarean section in Nigeria: a case study of Missionary hospital in Edo State, *Nigeria International Journal of Community Medicine and Public Health* 203(8):2040-2044 http://www.ijcmph.com

Aziken, M., Omo-Aghoja, L., &Okonofua, F. (2007). Perceptions and attitudes of pregnant women towards caesarean section in urban Nigeria.*Actavia Obstetrics Gynecology Scand*;86:42-7.

Benzion, U., Shahrabani, S., & Shavit, T. (2009). Recalled emotions and risk judgments: Field study of the 2006 Israel-Lebanon War. Judgment and Decision Making, 4(5), 326–336. https://doi.org/10.1017/S1930297500001194.

Betrán, A. P, Ye, J. , Moller, A. B, Zhang, J., Gülmezoglu, A. M, & Torloni, M. R (2016). *The Increasing Trend in Caesarean Section Rates: Global, Regional and National Estimates*: 1990-2014. PLoS ONE 11(2): e0148343. doi:10.1371/journal.pone.0148343

Betrán, A. P., Merialdi, M., Lauer, J. A., Bing-Shun, W., Thomas, J. & Van Look, P. (2007). Rates of caesarean section: Analysis of global, regional and national estimates. *PaediatricPerinatal Epidemiology*, 21:98-113.

Betran, A. P, Torloni, M. R, Zhang, J, Ye, J., Mikolajczyk, R., Deneux-Tharaux, C., Oladapo, O. T, et al. (2015). What is the optimal rate of cesarean section at population level? A systematic review of ecologic studies. *Reproductive Health;*12:57.

Bizet, F., Bengough, A. G, Hummel, I., Bogeat-Triboulot, M. B, Dupuy, L. X. (2016). 3D deformation field in growing plant roots reveals both mechanical and biological responses to axial mechanical forces. *Journal of Experimental Botany* 67, 5605–5614.

Corrigan, P. W., Watson, A. C., & Barr, L. (2009).“The self-stigma of mental illness: Implications for self-esteem and self-efficacy,” *Journal of Social and Clinical Psychology*, vol. 25, no. 8, pp. 875– 884, 2009.

Cunningham, F. G., Laveno, K. J., Bloom, S. L., Spong, C. Y., Dashe, J. S.,& Hoffman, B. L. (2014).*William obstetrics* (24th ed.). New York:McGraw Hill Company Limited.

Domingues, R. M., Dias, M. A., Nakamura-Pereira, M., Torres, J. A., D'Orsi, E. & Pereira, A. P. (2014). Process of decision-making regarding the mode of birth in Brazil: From the initial preference of women to the final mode of birth. *Cad Saude Publication*, 30 Suppl 1:S1-16.

Earnshaw, V. A., Smith, L. R., Chaudoir, S. R., Amico, K. R., &Copenhaver, M. M. (2013). HIV stigma mechanisms and well-being among PLWH: a test of the HIV stigma framework. *AIDS Behavior*, 17:1785–95.

Evans-Lacko, S., Brohan, E., Mojtabai, R. &Thornicroft, G.(2012). Association between public views of mental illness and self-stigma among individuals with mental illness in 14 European

countries.*Psychology Medicine*, 42(8):1741–1752.

Ezeonu, P. O, Ekwedigwe, K. C, Isikhuemen, M. E, et al. (2017). Perception of caesarean section among pregnant women in a rural missionary hospital. *Advance Reproductive Science:* 33–38.

Fraser, D. & Cooper, M. (2003). *Textbook for midwives* .Edited(14th edition)1089pp

Gabriel, A., & Violato, C. (2010). Depression literacy among patients and the public: A literature review. *Primary Psychiatry*, 17(1), 55-64.

Goffman, E.(1963). *Stigma: Notes on the Management of Spoiled Identity.*Harmondsworth, Middlesex: Penguin books.

Harrison, M. S. & Goldenberg, R. L. (2016). Caesarean Section in Sub-Saharan Africa. *Maternal Health, Neonatology and Perinatology*, 2, Article No. 6. https://doi.org/10.1186/s40748-016-0033-x

Hatzenbuehler, M. L., Phelan, J. C., & Link, B. G. (2013).Stigma as a fundamental cause of population health inequalities. *American Journal of Public Health*,103:813–21.

Ilesanmi, A. O., Odukogbe, A., &Olaleye, D. O. (1997).Vaginaldelivery after one previous Caesarean section inNigerian women.*Journal Obstetric Gynecology*.1997; 17: 139 -41.

Khan, A., & Zaman, S. (2010). Costs of vaginal delivery and Caesarean section at a tertiary level public hospital in Islamabad, Pakistan. *BMC Pregnancy Childbirth* 10, 2. https://doi.org/10.1186/1471-2393-10-2

LeBel, T. P. (2008). "Perceptions of and responses to stigma," *Sociology compass*,vol.2,no.2,pp.409-432.

Link, B. G., & Phelan, J. C. (2001).Conceptualizing stigma.*Annual Review of Sociology*, 27:363-385.

Link, B. G, Cullen, F. T, Struening, E. L, Shrout, P. E, & Dohrenwend, B. P. (1989). A modified labeling theory approach in the area of mental disorders: An empirical assessment. *American Sociological Review*.54:100–123.

Muñoz , M., Sanz, M., Pérez-Santos, E., &Quiroga, M. (2011). Proposal of a socio-cognitive-behavioral structural equation model of internalized stigma in people with severe and persistent mental illness.*Psychiatry Residue*.186:402–8.

Norris, F.H., Friedman, M. & Watson, P. (2002). 60,000 disaster victims speak: Part II. *Summary and implications for the disaster mental health research. Psychiatry*,65, 240–260.

Omo-Aghoja, L. & Okonofua, F. (2007). Perceptions and attitudes of pregnant women towards caesarean section in urban Nigeria. *Acta Obstet Gynecol Scand.* 2007;86(1):42-7. doi: 10.1080/00016340600994950. PMID: 17230288.

Onoh, R. C., Eze, J. N., Ezeonu, P. O., Lawani, L. O., Iyoke, C. A. &Nkwo, P. O.(2015). A 10-year appraisal of cesarean delivery and the associated fetal and maternal outcomes at a teaching hospital in

southeast Nigeria.*International Journal of Women's Health*,7:531. doi: 10.2147/IJWH.S81338. pmid:25999769.

Pajntar M. (2015). Textbook of perinatural medicine; cesarean delivery. 3rd ed. Philadelphia: Jaypee Brothers Medical Publishing Limited.

Phillips, K. D., Moneyham, L. &Tavakoli, A. (2011). Development of an instrument to measure internalized stigma in those with HIV/AIDS. *Issues of Mental Health Nursing*, 32:359–66.

Pidgeon, N. (1998). Risk Assessment, Risk Values and the Social Science Programme: Why We Do Need Risk Perception Research. *Reliable Engineering System Safety*, 59, 5-15. https://doi.org/10.1016/S0951-8320(97)00114-2

Rahmati-Najarkolaei F, Tavafian, S. S, Fesharaki, M. G, & Jafari, M. R. (2015). Factors predicting nutrition and physical activity behaviors due to cardiovascular disease in tehran university students: application of health belief model. I*ranian Red Crescent Medical Journa*l. doi: 10.5812/ircmj.18879. pmid:26019896

Ribak, R., Harlev, A., Ohel, I., Sergienko, R., Wiznitzer, A., &Sheiner, E. (2011).Refusal of emergency caesarean delivery in cases of nonreassuring fetal heart rate is an independent risk factor for perinatal mortality. *European journal of obstetric gynecology reproductive biology*, 2011;158:336.

Rohrmann, B. (2008). Risk Perception, Risk Attitude, Risk Communication, Risk Management: *A Conceptual Appraisal*. Paper Presented in the 15th International Emergency Management Society Annual Conference (Vol. 2008).

Rohrmann, B. & Renn, O. (2000). CrossCultural Risk Perception Research: State and Challenges. In: O. Renn & B. Rohrmann (eds.): *CrossCultural Risk Percepton. A Survey of Empirical Studies.* Dordrecht and Boston, pp.221233.

Rosa, E. A. (2003). The Logical Structure of the social amplification of risk framework: metatheoretical found & policy implications.In Royal society (Ed.). *Risk Analyses, perception & management*.London:Royal society.

Sheehan, L., Nieweglowski, K., & Corrigan, P. (2017).Structures and types of stigma. In: Gaebel W, Roessler W, Sartorius N, editors. *The Stigma of Mental Illness – End of the Story?* New York: Springer.

Sjoberg, L., Moen, B. & Rundmo, T. (2004) Explaining Risk Perception. *An Evaluation of the Psychometric Paradigm in Risk Perception Research.* Norwegian University of Science and Technology, C Rotunde Publikasjoner.

Soltanifar, S. & Russell, R. (2012).The National Institute for Health and Clinical Excellence (NICE) guidelines for caesarean section, 2011 update: *implications for the anaesthetist.* Published online: April 30, p264-272

Størksen, H. T, Garthus-Niegel, S., Vangen, S., Eberhard-Gran, M. (2013). The impact of previous birth experiences on maternal fear of childbirth. *Acta Obstet Gynecol Scand*. 2013 Mar;92(3):318-24. doi:

10.1111/aogs.12072. PMID: 23278249.

Vogel, D. L., Wade, N. G. & Hackler, A. H.(2007). "Perceived public stigma and the willingness to seek counseling: the mediating roles of self-stigma and attitudes toward counseling," *Journal ofCounseling Psychology*, vol. 54, no. 1, pp. 40–50.

Vogel, J. P., Betrán, A. P., Vindevoghel, N., Souza, J. P., Torloni, M. R & Zhang, J. (2015). Use of the Robson classification to assess caesarean section trends in 21 countries: a secondary analysis of two WHO multicountry surveys. *The Lancet Global health*, 31;3(5):e260–70. doi: 10.1016/S2214-109X(15)70094.

Weinstein, N. D. (1989). Perceptions of personal susceptibility to harm. In V. M. Mays, G. W. Albee, & S. F. Schneider (Eds.), *Primary prevention of AIDS: Psychological approaches* (pp. 142–167). Sage Publications, Inc.

Weiss, M. G. (2008). Stigma and the social burden of neglected tropical diseases.*PLoS Neglect Tropical Discourse*. , 2:e237.

Wikipedia. (2014). Labeling Theory: Social Constructionism. *Social Stigma, Deinstitutionalisation*.

Wiklund, I., Edman, G., Ryding, E. L. & Andolf, E. (2008). *Expectation and experiences of childbirth in primiparae with caesarean section*. BJOG. 2008;115:324–31.

WHO (2013) World Health Report 2013: *Research for Universal Health Coverage*: (168) *90 to 2013: estimates by WHO, UNICEF, UNFPA, The World Bank and the United Nations Population Division: executive summary.*

World Health Organization. (2018). Mental health Problems: The Undefined and Hidden Burden. Geneva: WHO, https://www.who.int/mediacentre/factsheets/fs218/en/.

Yilmaz, S. D & Beji, N. K. (2013). *Effects of perinatal loss on current pregnancy in Turkey Midwifery,* 29 (11), pp. 1272-1277

Zelaya, C. E., Sivaram, S., Johnson, S. C, Srikrishnan, A. K., Suniti, S., &Celentano, D. D. (2012). Measurement of self, experienced, and perceived HIV/AIDS stigma using parallel scales in Chennai, India. *AIDS Care,* 24:846–55.