Vulnerability Perception and Sexual Behaviour among Persons with Disabilities in Oyo State, Nigeria

Background to the Study

About fifteen per cent of the world population are with a disability with most of them in the less developed countries (World Health Organization (WHO) and World Bank, 2011; Enhancing Nigeria's HIV and AIDS Response Programme (ENR), 2015; Babalola, Nwokocha, & Adewole, 2021). It was reported that persons with disabilities (PWD) in Nigeria are 25 million (Disability Right Funds, 2018), a figure which is almost close to the 15% world estimate of disability (Disability Right Funds, 2018). According to the Nigeria Demographic and Health Survey (NDHS), 8.3% of the total population of Nigeria has at least one disability and 11.4% of people aged 15 and above have at least one difficulty or disability in Nigeria (National Population Commission [NPC] and ICF International, 2019). The Nigeria Population and Housing Census conducted in 2006 indicated that out of 140,431,790 persons in Nigeria, 3,253,169 (2.32%) of them had at least one disability. It was stated that out of the 36 states in Nigeria, eleven states had more than 100,000 PWD out of which Oyo State ranked eleventh. Furthermore, in the South-west geopolitical zone, Lagos state had the highest number of persons with disability (161,412), followed by Oyo state (101,657) (National Population Commission, 2009).

Furthermore, the 2018 Nigeria Demographic and Health Survey (NDHS) reported that out of 1,224 adult men respondents in Oyo state 8.8%, 6.0%, 0.7%, 0.8%, 0.2%, and 3.9% of them had visual, mobility, hearing, speaking, remembering or concentrating (i.e. intellectual) and washing all over or dressing (i.e hand) disabilities respectively, while out of 1,142 adult women respondents in Oyo state, 5.6%, 7.5%, 0.4%, 0.8%, 0.3% and 5.5% had seeing, mobility, hearing, speaking, remembering or concentrating (i.e. intellectual) and washing all over or dressing (i.e hand) disabilities respectively. According to the NDHS, adults, in this case, were referred to as persons 15 years and above (National Population Commission [NPC] and ICF International, 2019). Given the above report, it was therefore calculated that 20.4% and 20.1% of men and women 15 years and above in Oyo State had seeing, mobility, hearing, speaking, remembering or concentrating (i.e. intellectual) and washing all over or dressing (i.e hand) disabilities respectively.

Also, persons with disability depending on the severity of the disability find it difficult to decide the usage and choice of contraceptive methods (Bach, 2018). Emerging reproductive

choice methods among PWD in the more developed countries were revealed to include: decision making through assistance and replacing-decision making. Decision making through assistance is the situation in which PWD are involved in deciding on their reproductive choice but are being assisted by someone they trust to guide them in making such a choice, especially by someone that controls their reproductive future (Bach, 2018). It was further revealed that some persons with severe disabilities cannot make reproductive decisions themselves and they would need to rely solely on other people to make such decisions for them. This concept is referred to as replacing-decision making. Sometimes it depends on the law of the country if it permits persons with disabilities to do permanent sterilization or not, which may be done for them to manage their menstruation and prevent unwanted pregnancy. Alternatives such as Intra-uterine devices (IUDs) can be used to manage menstruation and prevent unwanted pregnancy (Bach, 2018).

Also, they experienced difficulty in assessing healthcare facilities for sexual and reproductive health-related issues (Mulindwa, 2003). Therefore, adequate sexual health should be provided and made accessible to PWD by the government without any form of discrimination. This was clearly stated in the UN agreement on the rights of PWD that government should take identifying their sexual and reproductive health needs as a priority and eliminate any form of discrimination against them, all of which must be pursued ethically and in line with their human rights perspective (Handicapp International, 2011). Besides, the Sustainable Development Goals (SDGs) 3 and 7 addressed global accessibility to services related to sexuality and reproduction while the SDGs 5 and 6 addressed ensuring access to rights of reproduction (United Nations Department of Economic and social affairs (UNDESA), 2018). Reproductive choices are embedded in the 166 reproductive rights which are based on recognizing the elementary couples' and individuals' rights to take a free and responsible decision about the number of children they want, its timing and spacing with adequate information and means to make such decisions. It further includes their ability to decide on their reproduction without any discrimination, coercion or violence (UNDESA, 2018).

Statement of the Problem

Despite that PWD when compared to the non-disabled are more vulnerable to sexual abuse, STIs including HIV/AIDS, and are more prone to unwanted pregnancy and abortion (Aderemi, Pillay, and Esterhuizen, 2013; ENR, 2015; Handicapp International, 2011; Touko, Mboua, Tohmu, & Perrot, 2010), their contraceptive usage remains lower (Maart and Jelsma,

2014; ENR 2015). Furthermore, their reproductive choice is poorer (Bach 2018) and their adolescents are more involved in having more than one sexual partners (Maart and Jelsma, 2014). Also, questions on whom the perpetrators of risky sexual behaviour to PWD and the social dimensions influencing such vulnerable behaviours are left largely unanswered in the literature.

Although protection motivation theory established a positive relationship between perception of vulnerability and human behaviour (Norman, Boer, & Seydel, 2005) yet knowledge gap still exist on the relationship between perception of vulnerability, the NSP and contraceptive use among PWD in Nigeria. Similarly, a study in Cameroon reported the type of sexual vulnerabilities, the extent of the practice of multiple sexual partnerships and STI among the hard to hear persons (Touko, Mboua, Tohmu, and Perrot, 2010).

Even though persons with disabilities irrespective of their gender are exposed to risky sexual behaviour and outcomes (Handicapp International, 2011; ENR, 2015) and persons with limiting disabilities in Britain are more vulnerable in their sexual behaviour and outcomes than those without disability (Holdsworth, Trifonova, Tanton, Kuper, Datta, & Macdowall, 2018), yet the gender dimension to PWD sexual behaviour had not been adequately examined in Nigerian literature.

Existing knowledge about vulnerability perception's influence on PWD sexual behaviour is limited in Nigeria. A few studies that discussed SB among PWD in Nigeria such as Aderemi, Pillay, and Esterhuizen's study and ENR study sufficiently addressed HIV prevalence and knowledge as determinants of sexual behaviour among persons with disability, (Aderemi, Pillay and Esterhuizen 2012 and ENR, 2015), but did not address the influence of vulnerability perception on sexual behaviour.

The few studies such as Mugi (2012) and Touko *et al*. (2010) that examined sexual behaviour and vulnerability are inadequate as they did not exhaustively reveal the relationship between perception of vulnerability and sexual behaviour and did not examine the consequences of sexual behaviour among PWD, yet they served as a basis for further research on VP and SB among persons with disability in Nigeria. Touko *et al.*'s (2010) study was inadequate as it examined actual vulnerability and sexual health outcomes, leaving out essential knowledge about their vulnerability perception and sexual behaviour.

In addition, studies such as Nyangweso, 2021; Eskay, Onu, Igbo, Obiyo, & Ugwuanyi, 2012 and Akin & Lisa, 2019 discussed perceptions about disability or persons with disability from the perspective of people without disability leaving out the perspective of those with disability and most studies such as Mugi, 2012, Umoren & Adejumo, 2014 and Tarkang, Adam, & Kweku, 2015 that discussed vulnerability and sexual behaviour from the perspective of PWD were skewed towards the concept of HIV/AIDs leaving out gaps in knowledge on vulnerability perception to other sexual and reproductive health (SRH) issues such as STI, unwanted pregnancy, rape or sexual violence.

The few related studies in these other SRH areas are limited in topical and geographical scope (Hollomotz, 2011; Rusinga, 2012; Aragão, de França, Coura, Medeiros, & Enders, 2016; Touko, Mboua, Tohmu, & Perrot, 2010). Babalola, Nwokocha, & Adewole's study that examined vulnerability perception, sexual behaviour and perceived consequences could have been the most similar to this study, but it was limited in its age distribution as it only concentrated on the young PWD and also examined perceived consequences instead of actual CSB among PWD which this study examined.

Although Aderemi *et al.* (2013) reported that PWD engaged in sexual intercourse, their patterns of SB, sexual partnership, and CSB were inadequately examined in Nigeria. Sexual partnership patterns were sparsely examined in ENR (2015) study while few studies outside Nigeria such as Toukou *et al.* (2010), Bach (2018), and Aragão, de França, Coura, Medeiros, & Enders (2016) provided little information related to contraceptive use patterns and sexual partnership among PWD in their studies, yet left out the consequences of sexual behaviour among PWD. Despite the existence of SRH rights of PWD in the SDG (UNDESA, 2018), these rights are still unimplemented as PWD are still more sexually exploited than the non-disabled without due recourse to their rights.

Research Questions

What are the patterns of sexual behaviour among PWD in Oyo State?

What are the dimensions of vulnerability perceptions related to sexual behaviour among PWD in Oyo State?

Are there gender dimensions to sexual behaviour among PWD in Oyo State?

Does vulnerability perception influence the number of sexual partners among PWD in Oyo State?

Does vulnerability perception influence contraceptive use among PWD in Oyo State?

What are the consequences of sexual behaviour among PWD in Oyo State?

Objectives of the Study

The general objective of this study is to examine the relationship between vulnerability perception and sexual behaviour among persons with disability in Oyo State, Nigeria. The specific objectives include, to:

i. Describe the patterns of sexual behaviour among PWD in Oyo State
ii. Document the dimensions of vulnerability perceptions related to sexual behaviour among PWD in Oyo State
iii. Describe the gender dimension to sexual behaviour among PWD in Oyo state
iv. Examine the influence of vulnerability perception on the number of sexual partners among PWD in Oyo State
v. Investigate the influence of vulnerability perception on contraceptive use among PWD in Oyo State
vi. Document the consequences of sexual behaviour among PWD in Oyo State

Justification for the Study

It has been reported that PWD are more at risk of unhealthy sexual outcomes such as STIs and HIV/AIDs (Aderemi, Pillay, & Esterhuizen, 2013). Irrespective of their gender, their physical impairment limits their ability to use SRH services. This physical impairment in combination with their risky sexual and reproductive behaviour endears them to the danger of increased mortality. However, findings from this study can assist policymakers to formulate and enforce policies that will improve the sexual and reproductive life of PWD and enhance their ability to prevent themselves from social and health vulnerabilities. It will also empower them to stand against exploiters of their vulnerabilities and prevent exposure to more risks.

The contribution of persons with disabilities to the HIV/AIDS epidemic in Nigeria and worldwide cannot be over-emphasized. This issue is more problematic among persons with disability due to their high vulnerability to risky sexual behaviour (RSB) (Greenwood &

Wilkinson, 2013; Aderemi, Pillay, and Esterhuizen, 2013). Findings from this study provides insight into the vulnerability perception and patterns of sexual behaviour among PWD and could influence the formulation of programs aimed at improving the perception of vulnerability, reducing vulnerability to RSB, and reducing risky sexual outcomes among PWD.

Furthermore, there had been a dearth of literature and programs in Nigeria aimed at examining the vulnerability perceptions and sexual behaviour among PWD. The results of this study could become policy instruments for policy formulation.

Methodology

A descriptive cross-sectional survey design was used. Necessary information concerning the independent and dependent variables of this study was collected. The population of the study are persons with disability who fall within age 15 and above and could participate in the study without the aid of a sign language interpreter. The age categorization included young people between 15 -24 years and adults. The inclusion of age 15 and above in this study is similar to the Nigeria 2018 DHS's categorization of PWD age 15 and above as adult (National Population Commission [NPC] and ICF International, 2019). PWD less than 18 years participated in this study with some legal guardians' permission while some may be regarded as emancipated adults. It excluded young people below age 15 due to the sensitivity of collecting sexual behaviour information among children. The World Health Organization categorized young people as those between the ages of 10 to 24 years (World Health Organization, 2020). The category of persons with a disability considered in this study were those with a visual, physical, mild intellectual, hearing, speech disabilities and a few others who had a disability but their disability could not be ascertained or categorized in the questionnaire, these were classified as others. The classification of some respondents' disability as others is similar to the 2006 Nigeria census priority table's classification of some disabilities as others (National Population Commission, 2009).

Since the respondents could fill the questionnaire or someone else could fill in the information for them, they were eligible to be included in the questionnaire. In the interview, only persons with visual and physical disabilities were interviewed. These persons could hear and talk distinctly and their voices could be recorded without the aid of a sign language interpreter, thus were eligible for the in-depth interview. Persons with cerebral palsy participated in the interview (one person) and questionnaire, but were classified as physical

disability in this study, though cerebral palsy could manifest as physical, intellectual, visual and hearing disabilities. Persons who had more than one disability were interviewed for only one of the disabilities. However, to have a sufficient sample and ensure diversity for this study, both persons with disability in specialized schools (or in-school), homes and those in the community that are not in specialized schools or homes were interviewed.

Informed consent was obtained from the principal or owners of homes of persons with disabilities visited before the house members were interviewed. Therefore, the owners of such facilities served as caretakers or legal guardians for PWD below age 15 from which consents were obtained, even though, the consent was for all PWD interviewed in the centres or schools. Informed consents were obtained from officers in charge or administrators of schools or centre of persons with disability visited such as the Head of Departments and administrator of such schools before information were obtained from the students. Most of the schools visited had boarding facilities for housing some of the students, thus, the officers in charge of the school could serve as in-school parents or legal guardians for the student from whom permission could be obtained in the cases of those below the age of 18, except those who were not boarding students.

The coverage areas for this study were the following five local government areas of Oyo State, which include: Ogbomosho North, Oyo (East and west), Ibadan south-east and Ibadan North. Oyo state has renowned centres, schools and homes for people with disabilities such as Oluyole Cheshire home for the disabled which is situated in Ibadan North Local government, Oyo state blind centre Ogbomosho, Oyo state, Sekinat Olapeju Adekola centre for the disabled, Ibadan South-East local government, School for the blind, Doba, Oyo town and Federal College of Education (Special), Oyo, Oyo state. These places were not the only centres visited in the selected local government, however, they were chosen because they are one of the renowned centres, homes or schools of PWD in the local government areas of the study.

This study used a purposive sampling approach in the selection of individuals from selected centres, schools, homes and communities in Ogbomosho North, Oyo East, Oyo West, Ibadan South-East and Ibadan North local government areas. The five local governments were selected purposively, which include Ogbomosho North, Oyo (East and West), Ibadan South-East and Ibadan North.

Ogbomosho North was selected because it has a centre for the blind there; Oyo was selected because it has the Federal College of Education (Special) Oyo state where persons with disability receive special education and teachers of the PWD are being taught and a centre for the blind located there and School for the blind, Doba is also located in Oyo town and, Ibadan South-East was selected because it has the Sekinat Olapeju Adekola centre for the disabled while Ibadan North was selected because of its centrality and the presence of the Oluyole Cheshire home for the disabled.

Respondent driven samplings were used to recruit eligible respondents from the schools, centres or homes of persons with disabilities and communities respectively. The schools, centres or homes of PWD and communities where PWD could be located in the local government area of the study were visited for the purpose of the research.

Questionnaires were administered to and the interview conducted on the eligible respondents from the various centres, schools, homes of PWD and communities in the selected local government of the study. PWD who participated in this study were recruited through organizations or schools of PWD and others were referred to the enumerators from those facilities of PWD or other persons. The respondents were approached in their homes, places of work, on the street, in a scheduled place, or wherever they were found and could conveniently respond to the questionnaire and the interview. Similar sampling techniques of purposive and snowballing were used in related studies (Umoren & Adejumo, 2014; Rusinga, 2012).

Respondent driven sampling was used at this stage due to the inability to determine the current population size of the study population in the local government area selected as the most reliable population statistics per local government for persons with disability in Nigeria was the 2006 National Population Census estimates on disabilities which is yet to be updated. The 2018 NDHS could have been used for this purpose but it did not state the population of PWD in each local government areas of Oyo State. Also, the heterogeneity, irregular distribution in the communities and the sparseness of the study population, who were one of the hard-to-reach populations in the larger communities, justifies the use of the respondent driven sampling at this stage.

The snowballing method was used alongside respondent driven sampling in the sense that when a person with a disability has been identified either through referrals by someone who had done such study before or those who work in the special education section or through

persons in the homes or centres of persons with disability, those persons with disability were reached either through their phone numbers or in their various locations. Thereafter, some of the respondents were also asked to refer the enumerator to other persons with disabilities within the circles of their network. This sampling technique assisted with recruiting sufficient samples for the study.

The sample size for this study is 404 persons with disability. This was calculated using Leslie Fischer's formula and adjusted for the non-response rate. Leslie Fischer's formula is given as

$$N= Z_{\infty}^2 P (1-P)/ d^2 \quad (3.1)$$

Where N represents sample size, Z_{∞} represents the factor obtained from the normal distribution for the setup confidence interval, P represents the proportion of the sample with the characteristics of interest, and d represents the sampling error. In this study, it is assumed that the P is 50%, and we can tolerate a sampling error of 5% at a 95% confidence level. Therefore, at a 95% confidence level, the Z_{∞} is given as 1.96.

$$N= 1.96^2 * 0.5 (1-0.5)/ 0.05^2 = 385$$

However, assuming we envisage a 5% non-response rate, the sample size calculated would be multiplied by the adjustment factor. The adjustment factor is calculated as

$$q= 1/1-f \quad (3.2)$$

where q represents the adjustment factor and f is the non-response rate.

N= 385* (1/1-0.05)= 385* 1.05= 404.3 persons, approximately 404 persons.

The 404 persons were divided into the five local government areas of the visit, which were Ogbomosho North, Oyo (east and west), Ibadan South-East and Ibadan North local government areas respectively.

This study used data from primary sources. The information was collected from the respondents and the study results only relied on the information gathered from the field. A semi-structured questionnaire instrument, as well as an in-depth interview guide, was used to elicit information from the respondents.

The SPSS package was used to analyze data emanating from the quantitative instrument at uni-variate, bivariate and multivariate levels of analysis using frequency distribution, chi-square, binary logistic regression and multinomial logistic regression respectively at a 95%

level of significance. The qualitative data were analyzed with content analysis using query-word tree in Nvivo software.

The University of Ibadan Social Sciences and Humanities Research Ethics Committee (SSHREC) was approached to seek ethical approval. The approval was obtained in November 10th, 2021 with the assigned number UI/SSHREC/2021/0029

The ethical principles of voluntary informed consent, confidentiality/ privacy, benefit and risk assessment according to the Belmont report were adopted in this study.

This work used the theory of reasoned action (TRA) by Ajzen and Fishbein (1975) and protection motivation theory (PMT) by by Rogers in 1975 to examine the perceived vulnerability and sexual behaviour among PWD in Oyo state.

Limitation of the study

This study has the following limitations, despite careful conduct of this study, these include:

- This study is a cross-sectional study and this makes it impossible to determine causalities between the independent and the dependent variables.
- The sampling technique adopted in this study was not representative enough of the PWD in Nigeria being a respondent driven method of sampling. It can only represent the PWD in the selected local government and on a large scale in Oyo state since the sample is large.
- Information about a few persons with other categories of disability apart from the visually impaired and the physically challenged capable of responding to the questionnaire or assisted to fill the questionnaire were included in this study. This expanded the scope of disability types in this study, yet the samples of these other disability types in this study were not sufficient to generalize to the national population or on a larger scale of generalization beyond the study areas.
- Certain responses in the questionnaire that were not answered by the respondents were deduced based on some other characteristics of the respondents or other responses given by the respondents.

Results and Discussion

Respondents who perceived themselves to be socially vulnerable were 264 (65.3%) while those who did not perceive themselves to be socially vulnerable were 140 (34.7%).

Respondents who perceived themselves to have sexual health vulnerability were 174 (43.1%) and those who did not perceive themselves as having health vulnerability were 230 (56.9%).

The majority of the PWD in this study have the perception that they are socially vulnerable. Their dimension of perception of social vulnerability varies which includes: other peoples' perception of PWD as occupationally incapable, social stigmatization, social activities restrictions or limitation (movement and transportation, etc), social unacceptability, social exploitation, social deprivation (of basic needs of recognition and welfare i.e.. feeding at a social gathering), and marital vulnerability. These various dimensions are reported in the following interview responses.

> A respondent who had other people perceiving him as incapable of doing a job said: "for me in the area of my job as a multi-instrumentalist sometimes when we go for shows like that or when someone recommends me to go to a church or it is when I get there the way people tend to, they will first think if I could do what they ask me to do. Number one because of the visual impairment.....I get to correct that belief in their minds that people with special needs can do more than what regular learners could do (**Male, 23 years, visually impaired, single, IBN, self-employed**)

A respondent that had social stigmatization perception said:

> "in our society whenever they see somebody that is ehn visually impaired or any other disability, they will look down on him or her it is when they draw closer to him or her they will know that ehn, he or she has something upstairs... people will see us say for instance stigmatization is there, when they want to say ah, you know that Mr 'kini', that blind man, they will label the person, so, that one is part of the society, so that is what I encounter as one of ehn people living with disability, which I believe that other colleagues are having the same experience (**Male, 40 years, visually impaired, married, IBSE, Higher education, employed**)

Another respondent having social stigmatization said:

> "Before, the moment they set their eyes on you what comes to your mind is that ah, this person is different from me I can't relate....even think disability is transferrable, yes, even till now some don't feel like relating with persons with disability because they see it, they *feel shame, they don't want people* to see them with persons with disability, they don't want to relate with them in our various society (**Male, 42 years, physical disability, single, IBN, Higher education, employed**)

The number of sexual partners was categorized into none with 229 respondents (56.7%), single 154 respondents (38.1%) and multiple sexual partners with 21 (5.2%). A total of 43.3 percent had at least one sexual partner. Respondents who did not use any contraceptive were 270 (66.8%) and those who used contraceptives were 134 (33.2%). The types of contraceptive used were categorized as none 247 (61.1%), condom 52 (12.9%), IUD 1 (0.2%), pills 17 (4.2%), withdrawal 2 (5.0%), injection 28 (6.9%), safe period/timing 22 (5.4%) and others 17 (4.2%).

In the quantitative result, gender had no significant relationship with contraceptive use among persons with disability in Oyo state (Chi^2 = 0.128; p-value= 0.721). Male who did not use contraceptives were 142 (66.0) and males who used contraceptives were 73 (34.0), the females who did not use contraceptives were 128 (67.7) while females who did not use contraceptives were 61 (32.3).

In the IDI reports shown in figure 4.7, there were various gender dimensions to contraceptive use among PWD in Oyo state. Among PWD that did not use contraceptives, there was no difference in gender in their number of non-usage as both males and females reported that they were not using contraceptives. The differences in gender manifested in the reasons they gave for non-usage of contraceptive.

One of the male respondents that had more than two sexual partners said *I have more than two but let me say I have two... let me say I have two partners so, both can't tell me the same day that they are not interested in it.* (**male, 25 years, visually impaired, single, OW, Unemployed**).

Another male respondent said:

> Before I use to go against it but later based on one or another experience, one experience or the other, and even I do go into it based on series of disappointments. I cannot go against it because there is a reason for everything and if someone has two partners if A misbehave B will not misbehave at that particular time, but it would have been better if someone have two partners, it should have been better that you should be sincere with the two of them and you should be watching them so that later on you will be able to pick the right one. (**Male, 28 years, visually impaired, single, OW, higher education, NYSC)**

Another male respondent said who practised multiple sexual partnerships at the time of the interview said:

> There are some asewos around and you will just come across if I feel like if I don't feel like. Yes, another sex someone, yes yes... to have more than one partner, there must be a reason for it, to me to plan for my wife so that she won't just be having unwanted pregnancy all the time, two, to have rest of mind because women somehow behave at times you may wish to have something with them and they will just turn you down unnecessarily and one feels... if you have made that person unhappy the other day it's better to have another one when this one fails you, then the other one, and the other one is not that I want her permanently to be my wife I want her I need to call her if I don't need her she stays away without me. (**Male, 44 years, physical disability, married, IBN, Secondary education, employed**).

Moreover none of the women with disability reported having multiple sexual partners. The closest to it was the woman that reported the unmet desire for another sexual partner due to the unpleasant experience she had with her present partner.

The woman said:

> For me, my partner is not around since two years ago, you know the pains you can have if you don't have any partner to be with you. It's good for me to have any other partner so that we can be together. But I've not seen any responsible partner. If I see any responsible and understanding person, so I can be with him. I don't have another partner now. (**Female, 42 years, physical disability, married, IBN, higher education, employed**).

Another female had another similar report of the likelihood that her partner may have other partners coming around to sleep with him over the night, even though she still keeps to the man alone, she said *till now he has no other person, but may have ladies coming around to sleep over the night. I have no other partner.* (**Female, 50 years, physical disability, separated, IBN, primary education, self-employed**).

However in the aspect of single partnership, there was no much difference rather there was similarity as most of the respondents either male or female reported having or staying with one sexual partner (see fig. 4.8).

Influence of Vulnerability perception on Sexual Behaviour among PWD in Oyo State Nigeria

Table 4.1: Influence of Vulnerability Perception and VP Variables on Number of Sexual Partners

Variables	Number of Sexual Partners			
	One		2+	
Vulnerability Perception Characteristics	Odds Ratio (Confidence Interval)	P-value	Odds Ratio (Confidence Interval)	P-value
Vulnerability Perception				
Positive	1.138(0.253-5.122)	0.866	0.535(0.016-18.410)	0.729
Negative	1.00		1.00	
Social Vulnerability Perception				
Positive	0.813 (0.231-2.868)	0.748	3.135 (0.130-75.416)	0.481
Negative	1.00		1.00	
Sexual Health vulnerability perception				
Positive	0.401	0.160	4.899	0.151
Negative	(0.112-1.434) 1.00		(0.560-42.841) 1.00	
Rape vulnerability perception (RVP)				
Positive	1.939	0.215	0.123	0.037
Negative	(0.681-5.519) 1.00		(0.017-0.884) 1.00	
Unwanted pregnancy vulnerability perception UpVP				
Positive	2.884 (1.033-8.049)	0.043	0.705 (0.111-4.479)	0.711
Negative	1.00		1.00	
STI vulnerability perception				
Positive	0.959 (0.381-2.417)	0.930	0.367 (0.058-2.321)	0.287
Negative	1.00		1.00	
HIV/AIDS vulnerability perception				
Positive	1.483 (0.566-3.886)	0.422	1.498 (0.225-9.972)	0.676
Negative	1.00		1.00	

Table 4.1 showed the influence of vulnerability perception variables on the number of sexual partners among persons with disability in Oyo State, adjusting for all significant confounding independent variables. The multinomial logit for PWD that had positive vulnerability perception relative to those that had negative vulnerability perception was 1.138 units higher for having one sexual partner to no sexual partner given all other independent variables are held constant. This influence on number of sexual partners was not significant (odds ratio= 1.138; C.I = 0.253-5.122; p-value= 0.866).

The multinomial logit for PWD that had positive vulnerability perception relative to those that had negative vulnerability perception was 0.535 units lesser for having multiple sexual partner to no sexual partner given all other independent variables are held constant. This influence on number of sexual partners was not significant (odds ratio= 0.535; C.I = 0.016-18.410; p-value= 0.729).

The multinomial logit for PWD that perceived that they are socially vulnerable relative to those that did not perceive themselves as socially vulnerable was 0.813 units lesser for having one sexual partner to no sexual partner given all other independent variables are held constant. This influence on number of sexual partners was not significant (odds ratio= 0.813; C.I = 0.231-2.868; p-value= 0.748).

The multinomial logit for PWD that perceive that they are socially vulnerable relative to those that did not perceive themselves as socially vulnerable was 3.135 times higher for having multiple sexual partner compared to having no sexual partner given all other independent variables are held constant (odds ratio= 3.135; C.I= 0.130-75.416; p-value= 0.481). This influence of social vulnerability perception on the number of sexual partners was not significant at p-value < 0.05.

The multinomial logit for PWD with sexual health vulnerability perception relative to those without sexual health vulnerability perception was 0.401 units lower for having one sexual partner compared to having no sexual partner (odds ratio = 0.401; C.I= 0.112-1.434; p-value= 0.160). This influence of sexual health vulnerability perception on the number of sexual partners was not statistically significant at a p-value < 0.05

The multinomial logit for PWD with sexual health vulnerability perception relative to those without sexual health vulnerability perception was 4.899 units higher for having multiple sexual partner compared to having no multiple sexual partners (odds ratio = 4.899; C.I= 0.560 – 42.841; p-value= 0.151). This influence of sexual health vulnerability perception on the number of sexual partners was not statistically significant at a p-value < 0.05.

The multinomial logit for PWD with rape vulnerability perception relative to those without rape vulnerability perception was 1.939 units higher for having one sexual partner compared to having no sexual partners (odds ratio = 1.939; C.I= 0.681 – 5.519; p-value= 0.215). This influence of rape vulnerability perception on the number of sexual partners was not statistically significant at a p-value < 0.05.

The multinomial logit for PWD with rape vulnerability perception relative to those without rape vulnerability perception was 0.123 units lower for having multiple sexual partners compared to having no sexual partner (odds ratio = 0.123; C.I= 0.017-0.884; p-value= 0.037). This influence of rape vulnerability perception on the number of sexual partners was not statistically significant at a p-value < 0.05.

The multinomial logit for PWD with unwanted pregnancy vulnerability perception relative to those without unwanted pregnancy vulnerability perception is 2.884 units higher for having one sexual partner compared to having no sexual partner (odds ratio = 2.884; C.I= 1.033 – 8.049; p-value= 0.043). This influence of unwanted pregnancy vulnerability perception on the number of sexual partners was statistically significant at a p-value < 0.05.

The multinomial logit for PWD with unwanted pregnancy vulnerability perception relative to those without unwanted pregnancy vulnerability perception was 0.705 units lower for having multiple sexual partners compared to having no sexual partner (odds ratio = 0.705; C.I= 0.111-4.479; p-value= 0.711). This influence of unwanted pregnancy vulnerability perception on the number of sexual partners was not statistically significant at a p-value < 0.05

The multinomial logit for PWD that have STI vulnerability perception relative to those that did not have STI vulnerability perception was 0.959 units lesser for having one sexual partner to having no sexual partner given all other independent variables were held constant (odds ratio = 0.959; C.I = 0.381-2.417; p-value= 0.930). This influence on number of the sexual partners was not significant at a p-value < 0.05.

The multinomial logit for PWD that have STI vulnerability perception relative to those that did not have STI vulnerability perception was 0.367 units lesser for having multiple sexual partners compared to having no sexual partner given all other independent variables were held constant (odds ratio= 0.367; C.I= 0.058-2.321; p-value= 0.287). This influence of STI vulnerability perception on the number of sexual partners was not statistically significant at a p-value < 0.05

The multinomial logit for PWD that had HIV/AIDS vulnerability perception relative to those that did not have HIV/AIDS vulnerability perception was 1.483 units higher for having one sexual partner to having no sexual partner given all other independent variables were held constant. This influence of HIV/AIDS vulnerability perception on number of sexual partners was not significant at p-value < 0.05 (odds ratio= 1.483; C.I = 0.566-3.886; p-value= 0.422).

The multinomial logit for PWD that had HIV/AIDS vulnerability perception relative to those that did not have HIV/AIDS vulnerability perception was 1.498 units higher for having multiple sexual partners compared to having no sexual partner given all other independent variables were held constant (odds ratio = 1.498; C.I= 0.225-9.972; p-value= 0.676). This influence of HIV/AIDS vulnerability perception on the number of sexual partners was not statistically significant at a p-value < 0.05

Table 4.2: Influence of Vulnerability Perception Variables on Contraceptive Use (adjusted)

Variables	Contraceptive use	
Socio-demographics	Odds ratio(confidence interval)	p-value
Social Vulnerability Perception		
Positive	0.316(0.067-1.495)	0.146
Negative	1.00	
Sexual Health vulnerability perception		
Positive	1.238(0.311-4.921)	0.762
Negative	1.00	
Rape vulnerability perception (RVP)		
Positive	0.661(0.093-4.691)	0.661
Negative	1.00	
RVP Perpetrator		
Wife/Husband	0.044(0.006-0.300)	0.001
Friends	0.36(0.005-0.264)	0.001
Stranger	0.213(0.019-2.434)	0.213
Relative	0.193(0.016-2.298)	0.193
Older person	0.016(0.000-0.550)	0.022
Others	0.000(0.000-)	0.999
Anybody	0.000(0.000-)	0.999
Don't Know	0.123(0.013-1.135)	0.065
None	1.00	
UpVP		
Positive	1.438(0.284-7.284)	0.660
Negative	1.00	
UpVP source/perpetrator		
Wife/Husband	1.959(0.470-8.163)	0.356
Friends	4.723(0.901-24.747)	0.066
Stranger	3.353(0.480-23.416)	0.222
Relative	8.043(1.036-62.451)	0.046
Older person	0.643(0.039-10.550)	0.643
Others	25120409386(0.000-)	1.00
Partner	0.00(0.000-)	1.00
Anybody/anybody I am dating	35514316898(0.00-)	0.999
Don't Know	2.590(0.387-17.338)	0.327
None	1.00	
STI vulnerability perception		
Positive	0.410(0.148-1.135)	0.086
Negative	1.00	

Table 4.2 showed the influence of vulnerability perception variables on contraceptive use among persons with disability in Oyo State, having adjusted for confounding effects of all significant independent variables. Vulnerability perception did not significantly influence

contraceptive use at p-value<0.05. PWD who had positive VP were 0.965 times less likely to use contraceptive (odds ratio= 0.965, C.I= 0.146-6.362; p-value= 0.970)

Social vulnerability perception did significantly influence contraceptive use at a p-value < 0.05. PWD with social vulnerability perception compared to those without social vulnerability perception were 0.316 times less likely to use contraceptives (odds ratio= 0.316, C.I= 0.067-1.495; p-value= 0.146).

Sexual health vulnerability perception did not significantly influence contraceptive use at a p-value < 0.05. PWD with sexual health vulnerability perception compared to those without sexual health vulnerability perception were 1.238 times more likely to use contraceptive (Odds ratio= 1.238, C.I= 0.311-4.921; p-value= 0.762).

Rape vulnerability perception did not significantly influence contraceptive use at p-value < 0.05. PWD with rape vulnerability perception compared to those without rape vulnerability perception were 0.661 times less likely to use contraceptive (odds ratio= 0.661; C.I= 0.093-4.691; p-value= 0.661).

Rape vulnerability source or perpetrator perception showed some significantly influence contraceptive use at a p-value < 0.05. PWD that perceived that wife/husband could be the source of rape were 0.044 times less likely than those who did not perceive any source of rape to use contraceptives (odds ratio= 0.044; C.I= 0.006-0.300; p-value= 0.001). This influence of contraceptive use was significant at p-value<0.05. PWD that perceived that friends could be the source of rape were 0.36 times less likely than those who did not perceive any source of rape to use contraceptives (odds ratio= 0.36; C.I= 0.005-0.264; p-value= **0.001**). This influence of contraceptive use was significant at p-value<0.05.

PWD that perceived that strangers could be the source of rape were 0.213 times less likely than those who did not perceive any source of rape to use contraceptives (odds ratio= 0.213; C.I= 0.019-2.434; p-value= 0.213). PWD that perceived that relatives could be the source of rape were 0.193 times less likely than those who did not perceive any source of rape to use contraceptives (odds ratio= 0.193; C.I= 0.016-2.298; p-value= 0.193).

PWD that perceived that an older person could be the source of rape were 0.016 times less likely than those who did not perceive any source of rape to use contraceptives (odds ratio= 0.016; C.I= 0.000-0.550; p-value= 0.022). PWD that perceived that others could be the source of rape were 0.000 times less likely than those who did not perceive any source of

rape to use contraceptives (odds ratio= 0.000; C.I= 0.000-; p-value= 0.999). PWD that perceived that anybody could be the source of rape were 0.000 times less likely than those who did not perceive any source of rape to use contraceptives (odds ratio= 0.000; C.I= 0.0000; p-value= 0.999). PWD that perceived that they did not know who could be the source of rape were 0.123 times less likely than those who did not perceive any source of rape to use contraceptives (odds ratio= 0.123; C.I= 0.013-1.135; p-value= 0.065).

Unwanted pregnancy vulnerability perception did not significantly influence contraceptive use at a p-value < 0.05. PWD with unwanted pregnancy vulnerability perception compared to those without unwanted pregnancy vulnerability perception were 1.438 times more likely to use contraceptives (Odds ratio= 1.438, C.I= 0.284-7.284; p-value= 0.660).

Unwanted pregnancy vulnerability source perception showed a significant influence on contraceptive use at a p-value < 0.05. PWD that perceived that wife/husband could be the source of unwanted pregnancy were 1.959 times more likely than those who did not perceive any source of unwanted pregnancy to use contraceptives (odds ratio= 0.556; C.I= 0.193-1.622; p-value= 0.282). PWD that perceived that friends could be the source of unwanted pregnancy were 4,723 times more likely than those who did not perceive any source of unwanted pregnancy to use contraceptives (odds ratio= 4.723; C.I= 0.901-24.747; p-value= 0.066).

PWD that perceived that strangers could be the source of unwanted pregnancy were 3.353 times more likely than those who did not perceive any source of unwanted pregnancy to use contraceptives (odds ratio= 3.353; C.I= 0.480-23.416; p-value= 0.222). PWD that perceived that relatives could be the source of unwanted pregnancy were 8.043 times more likely than those who did not perceive any source of unwanted pregnancy to use contraceptives (odds ratio= 8.043; C.I= 1.036-62.451; p-value= 0.046**).**

PWD that perceived that an older person could be the source of unwanted pregnancy were 0.643 times less likely than those who did not perceive any source of unwanted pregnancy to use contraceptives (odds ratio= 0.643; C.I= 0.039-10.550; p-value= 0.643). PWD that perceived that others could be the source of unwanted pregnancy were 25120409386 times more likely than those who did not perceive any source of unwanted pregnancy to use contraceptives (odds ratio= 25120409386; C.I= 0.000- ; p-value= 1.00).

PWD that perceived that partners could be the source of unwanted pregnancy were 0.000 times less likely than those who did not perceive any source of unwanted pregnancy to use contraceptives (odds ratio= 0.000; C.I= 0.0000-; p-value= 1.000). PWD that perceived that anybody could be the source of unwanted pregnancy were 35514316898 times more likely than those who did not perceive any source of rape to use contraceptives (odds ratio= 35514316898; C.I= 0.0000-; p-value= 0.999). PWD that perceived that don't know who could be the source of unwanted pregnancy were 2.590 times more likely than those who did not perceive any source of rape to use contraceptives (odds ratio= 2.590; C.I= 0.387-17.338; p-value= 0.327).

STI vulnerability perception did not significantly influence contraceptive use at a p-value < 0.05. PWD with STI vulnerability perception compared to those without STI vulnerability perception were 0.410 times less likely to use contraceptive (Odds ratio= 0.410, C.I= 0.148-1.135; p-value= 0.086).

Consequences of Sexual Behaviour among PWD in Oyo State, Nigeria

This section presents the consequences of sexual behaviour among PWD in Oyo State, Nigeria. Table 4.3 showed the consequences of sexual behaviour among PWD in Oyo state, which include abortion (0.2%), depression (0.2%), child bearing (0.7%), separation (0.2%), STD (0.2%), Education (0.2%) and Pregnancy (0.2%). Others reported that they don't know any consequence (0.7%) but the majority reported that they don't have any consequence (97%).

Table 4.3: Consequences of Sexual Behaviour among PWD in Oyo State

Consequences of Sexual Behaviour	Number	Frequency (%)
None	392	97.0
Abortion	1	0.2
Depression	1	0.2
Childbearing	3	0.7
Separation	1	0.2
Sexually transmitted Disease	1	0.2
	3	0.7
Don't Know	1	0.2
Education	1	0.2
Pregnancy		

Source: Author's construct, 2022

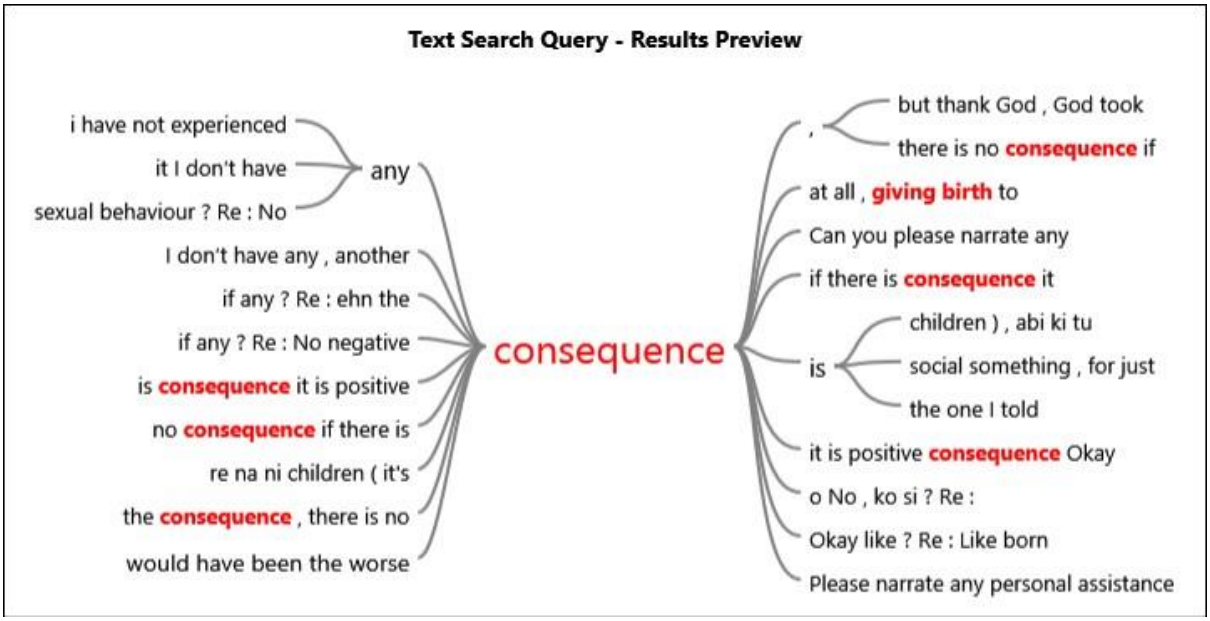

Fig 4.1: Consequences of Sexual Behaviour among PWD in Oyo state

Source: Author's construct, 2022

Figure 4.1 showed the IDI responses to consequences of sexual behaviour among PWD in Oyo state. The respondents were more consistent in reporting that there was no consequence for their sexual behaviour. However, among those who reported having a consequence of sexual behaviour, a majority reported childbearing which was a positive consequence except for those who reported it as not wanted. Other positive reports included: keeping a relationship with one's wife (i.e. partnership) and good something for the body as created by God between married partners. Negative consequences were reported which included: Contraction of STI, unwanted child, fight from an admirer, unhappiness, single parenting (i.e. single-handedly caring for the children) and the sudden removal of condom during sexual intercourse which generated fear.

A respondent said *I have not experienced any consequence* (**Male, 28 years, visually impaired, single, IBSE, higher education, unemployed**)

Another respondent said *no any consequence o* (**Female, 42 years, visually impaired, married, OE, higher education, employed**)

Another respondent said:

> No, I have not, the one that would have been the worse consequence is the one I told you, the issue of pregnancy would have been the worse consequence for me because I never have that kind of fear in my life

> but it would have been the worse consequence, but thank God, God took care of it for me and I am free. (**Male, 33 years, physical disability, single, IBN, Higher education, Entrepreneur**)

Another respondent said *no negative consequence* (**Female, 50 years, physical disability, separated, IBN, primary education, self-employed**)

Another respondent said:

> There is no consequence, if there is a consequence it is a positive consequence. Like born new baby, that's just it. I don't have any consequence at all, giving birth to a new baby and I will name the baby as Abayomi (**Male, 40 years, visually impaired, married, IBSE, higher education, employed**)

Another respondent said *its consequence is children, apart from that I don't have any, another consequence is social something, for just to keep relationship with our spouse* (**Male, 50 years, visually impaired, married, ON, higher education, employed**)

Another respondent said *the consequences are the third, you know I told you that initially, we planned to have only just two children, but it was when there was no plan, it was that the third child came* (**Male, 44 years, visually impaired, married, OE, higher education, employed**)

Another respondent said *except for a lady not in Nigeria here in Ivory Coast maybe she loves me or something but I do not give her face, that one had to fight with me seriously that it is as if I am not a man* (**Male, 54 years, physical disability, separated, OE, higher education, self-employed**)

Another respondent said:

> First experience, it is the one I cannot forget forever, till I die, I contracted infection.... The first infection I had that people could not move close to me, all my body, in fact all my neck down, there were infections there, that there was no vacant space there, if not for people and God that delivered me that I became normal again (**Male, 21 years, visually impaired, single, ON, primary education, unemployed**)

Another respondent said:

> Every sex that is from one wife one man, it usually result in good consequences. Good things firstly, it is usually something good as God as prepared it and then it makes one's body to be okay. (**Male, up to**

40 years, visually impaired, married, ON, secondary education, unemployed)

Another respondent said:

> The consequences I have now is that single-handedly bearing the burden of caring for the children, that is the first one, the second is that if someone is having sexual intercourse with another person that the person does not know the father or the mother of such person if the person leaves someone, the person will be carrying the burden alone there will not be another man with someone, but if someone takes the appropriate step both partners would stay together forever. (**Female, about 50 years, visually impaired, married, ON, Secondary education, employed**)

Another respondent said *I was not happy that day* (**Female, 20 years, visually impaired, single, OW, Secondary education, unemployed**)

Another respondent said *one day, I think I have protected myself as well, the thing now removed, the circle removed so, I was afraid*. (**Male, 27 years, visually impaired, single, OW, higher education, unemployed**)

Discussion of Findings

This section discussed the results of the study in the light of relevant and contemporary literature and the study objectives. The general objective of this study was to examine the relationship between vulnerability perception and sexual behaviour among persons with disabilities in Oyo State, Nigeria.

The study's first specific objective was to describe the patterns of sexual behaviour among PWD in Oyo State. The sexual partnership pattern among PWD shown in this study implied that they are sexually active since many of them have one or more sexual partners. This finding agrees with other studies that revealed that PWD engage in sexual activities and not asexual, such as the ENR study that revealed that PWD in Nigeria are sexually full of life as more males practiced multiple sexual partnerships than females (ENR 2015), Maart and Jelsma study that also showed that it is incorrect to perceive that PWD are sexually inactive and are not vulnerable to HIV (Maart and Jelsma, 2014) and Umoren & Adejumo in 2014 that negated the mistaken belief that PWD are asexual. The finding from this study that 5.2% of PWD have multiple sexual partners can be corroborated with the findings of the ENR 2015 which revealed that PWD having multiple sexual partners in the twelve months preceding the survey were 22 per cent, males 26% and females 17% (ENR, 2015).

Moreover, PWD with single sexual partners should be discouraged from practising multiple sexual partnerships through the provision of sexual education as they should be educated on the sexual and reproductive health risks involved having multiple sexual partners. PWD having multiple sexual partners should be educated on the sexual and reproductive risks associated with it so as to discourage having multiple sexual partners.

The usage of contraceptives among PWD was low at 33.2% and the majority of them were not using contraceptives (66.8%). The majority that was not using contraceptives included both PWD that had sexual partners and those who did not have sexual partners. Among those that had one sexual partner or multiple sexual partners, a high percentage of them were not using contraceptives (41.6%) and (38.1%) respectively. Among the types of contraceptives that PWD used, condoms had the highest percentage of usage (12.9%), followed by injections (6.9%), safe period/timing (5.4%), withdrawal (5.0%), pills (4.2%), others (4.2%) and IUDs (0.2%). This agreed with findings of ENR that reported low usage of condoms among PWD in Nigeria (ENR, 2015)

The in-depth interview report on contraceptive use was similar to that of the quantitative findings. It also showed that the majority of PWD who had sexual partners did not use contraceptives. It further showed that PWD either male or females don't use contraceptives because they trusted their partner and they are in a marital relationship (i.e. some respondents said "she or it is my wife"), and their partner does not like it, their physiological frame does not conceive often and they still desire more children. Others who used it had different reasons for using contraceptives which include: being forced to use by a partner, to protect themselves from STI and prevent unwanted pregnancy. PWD who used contraceptives used condoms, copper T, timing and family planning).

It was observed from the IDI responses that some did not recognize timing and family planning as contraceptive methods and even though they mentioned the use of timing and family planning, they still said they did not use contraceptives. This showed that PWD still lack adequate family planning knowledge and need to be given adequate sexual, reproductive health and family planning knowledge, education or training about the various available types of contraceptives that can be used by them.

This result agreed with the ENR study that found out that there was low usage of condoms among PWD in Nigeria and also Aderemi, Pillay and Esterhuizen's (2013) study which showed that there was low condom utilization among the mild intellectually disabled

adolescents compared to non-disabled learners in Oyo state. It also agrees with Mugi's study that 53% of sexually active students with disability engage in unprotected sex (Mugi, 2012). PWD in this study that used contraceptives also reported prevention of pregnancy as a reason for the usage of contraceptive as explained in the Greenwood and Wilkinson's study which explained that women with intellectual disability use contraception for different purposes which include: prevention of pregnancy and management of menstruation (Greenwood & Wilkinson, 2013).

The second specific objective was to document the dimensions of vulnerability perception related to sexual behaviour among PWD in Oyo State. The study reported social and sexual health dimensions of vulnerability perception. The specific indicators of social vulnerability perception were education, culture, religion, income, occupation, residence and physical vulnerability perceptions while those for sexual health vulnerability perception were rape, source of rape, unwanted pregnancy, source of unwanted pregnancy or responsibility for unwanted pregnancy, STI and HIV/AIDS, which were also reported in the study.

PWD in Oyo State had different perceptions about their vulnerabilities. Some perceived themselves to be socially vulnerable while some did not perceive themselves to be socially vulnerable. The majority (65.3%) of the PWD perceived themselves to be socially vulnerable while 34.7% of them did not perceive themselves to be socially vulnerable. These findings agreed with the ENR study that showed that PWD experience socio-economic vulnerabilities in the aspect of poverty, education, unemployment and healthcare service accessibility (ENR, 2015).

The findings that PWD perceived themselves as socially vulnerable agree with a study that showed that PWD are more vulnerable to poverty, unemployment and social exclusion as a result of their disability. Consequently, PWD tend to exclude themselves from society because they share a similar perception with the society that they cannot contribute meaningfully to society (Onalu & Nwafor, 2021). It also agreed with Touko et al. study that explained that deaf persons had social vulnerability because they had a lower level of education, a lower level of occupation, engage in manual labour and were poorer when compared to the general population (Touko, Mboua, Tohmu, & Perrot, 2010)

The IDI report followed a similar dimension as the report from the questionnaire survey but with some deviations in the dimensions of the social vulnerability reported in the in-depth interview. The in-depth interview reported more detailed dimensions that are different from

the ones reported in the questionnaire results. It showed that the majority of the respondents perceived themselves as socially vulnerable while a few did not perceive themselves as socially vulnerable.

The dimension of social vulnerability perception reported among PWD in Oyo state include: Perception that PWD are unable to do things (i.e. on job) by persons without disability, stigmatization in form of labelling the PWD with his or her disability by the non-disabled persons, undermining the abilities of PWD by non-disabled persons, discrimination or shame in relating with PWD by non-disabled persons, wrong perception or myths about PWD by non-disabled: non-disabled person thinking that the disability is transferrable or communicable, unwillingness to give helping hand to the disabled by the non-disabled persons.

Furthermore, limitation in mobility and activities that even leads to thoughts of committing suicide when the PWD makes comparison with friends that are not with disability, feeling of dejection or unacceptability in the midst of sighted people, taking advantage of PWD by non-disabled people, denial of rights (e.g. political position) but seeking for and utilizing their ideas by non-disabled person, feeling of dejection and action of neglecting PWD in recognition and feeding at a social gathering, difficulty in transportation (extra cost of transportation, inability to seat anywhere in public transport, unwillingness of non-disabled person to sit with PWD in public transport), difficulty in eating and drinking, difficulty in getting husband.

These reports agreed with the findings of Haruna, 2017 that described a prevalent dimension of stigmatization against PWD that leads to social identity modification that is, the society names or labels the PWD with the person's disability and thereby results in social, political, economic and educational discrimination among PWD. The effect of these stigmatizations and exclusion in the society can include self-harm, low self-esteem, inability to relate well in the society, isolation and depression (Haruna, 2017).

A few PWD also perceived that they are not socially vulnerable, the reasons given were: ability to go anywhere and become accepted, social interaction exposure both nationally and internationally (attendance of conferences and interaction with many leaders in the world), and a boost of self-esteem. This report agreed with the study that opined that positive societal behaviour towards disability encourages social inclusion among PWD (Babik & Gardner, 2021)

A majority (56.9%) of the PWD perceived that they do not have sexual health vulnerabilities while 43.1% of them perceived themselves to have sexual health vulnerabilities. Respondents that perceived themselves as being vulnerable to rape were 120 (29.7%) and those who did not perceive themselves to be vulnerable to rape were 284 (70.3%). Respondents perception of source of rape were wife/husband were 26 (6.4%), friends 38 (9.4%), stranger 42 (10.4%), relative 15 (3.7%), older person 10 (2.5%), others 12 (3.0%), anybody 3 (0.7%) don't know 2 (0.5%) and none 256 (63.4%).

Respondents who perceive that they are vulnerable to unwanted pregnancy were 128 (31.7%) and those who do not perceive themselves to be vulnerable to either being responsible for or being a victim of unwanted pregnancy were 276 (68.3%). Respondents perception of source of responsibility for or source of unwanted pregnancy were wife/husband 48 (11.9%), friends 36 (8.9%), stranger 30 (7.4%), relative 19 (4.7%), older person 15 (3.7%), others 14 (3.5%), partner 1 (0.2%), anybody/anybody I am dating 1 (0.2%), don't know 3 (0.7%) and none 237 (58.7%).

Respondents who perceived that they were vulnerable to sexually transmitted infections (STI) were 92 (22.8%) and those who do not perceive themselves to be vulnerable to STIs were 312 (77.2%). Respondents who perceived themselves to be vulnerable to HIV/AIDS were 49 (12.1%) and those who had a negative vulnerability perception to HIV/AIDS were 355 (87.9%).

The IDI report also showed interesting dimensions of sexual health vulnerability perception among PWD in Oyo State. Some PWD perceived themselves to be vulnerable to rape while some did not perceive themselves to be vulnerable to rape. The majority of PWD perceived that they are not vulnerable to rape. Some gave reasons such as they being a man, they cannot be raped, not going near what will expose them to rape, and their disability being a shield from being kidnapped to be raped. PWD that perceived the possibility of being raped gave the reason that anybody can be raped due to the insecurity news spreading around. This could be explained by the perception of a person with learning difficulty that anybody either with disability or not could be vulnerable to sexual violence (Hollomotz, 2011).

The majority of the PWD both male and female have the perception that they are vulnerable to unwanted pregnancy (either being responsible for unwanted pregnancy as a male or being a carrier of unwanted pregnancy as a female) but a few of them have the perception that they are not vulnerable to unwanted pregnancy. The reasons given for having the perception that

they are vulnerable to unwanted pregnancy are: the fear that a man can deny the responsibility for the pregnancy and the care of the child, the practice of withdrawal method with his wife, information about unwanted pregnancy heard from other people, financial constraint to take care of the child and the mother, desire for adequate child spacing and the experience of a friend about failed contraceptive.

PWD that do not have the perception that they are vulnerable to unwanted pregnancy gave the following reasons: experience of delay in conception, maturity (probably the fact that the person is now married), the perception that usage of timing and withdrawal method will not lead to unwanted pregnancy.

The perception that the majority of PWD in this study have about them being vulnerable to unwanted pregnancy agrees with the opinions of a study that young PWD are more exposed to ill-sex that includes: prostitution, pornography, sexual violence, unintended pregnancies and sexually transmitted diseases (STDs) than those without disability which is a consequence of poorer sexual knowledge and education among young PWD when compared to those without disability that results from public oppression and non-visibility of PWD sexual life (Shah, 2017).

PWD in Oyo state shared contrasting STI vulnerability perceptions, while a few did not perceive themselves to be vulnerable to it yet majority perceived themselves as being vulnerable to STI. PWD that did not report STI vulnerability perception gave reasons like stable and balanced wife, faithful wife and one partner, and not perceiving HIV as a big deal based on the orientation about it given by a doctor who is a relative. Those who perceive that they are vulnerable to STI gave the following reasons: information or knowledge heard about the different types of STI, sexual activeness, partner's lifestyle and practice of unprotected sex, and lack of knowledge about one's partner. Sexual health vulnerabilities shown in this study can be related to the study that reported sexual vulnerability among hard-to-hear persons to limited knowledge of sexually transmitted infections (Touko, Mboua, Tohmu, & Perrot, 2010).

The majority of PWD in Oyo state perceived themselves as not vulnerable to HIV yet very few opined that they are vulnerable to HIV. Those who perceived themselves as vulnerable to HIV gave the following reasons: knowledge about HIV existence and the possibility of contracting it through sexual intercourse, the possibility of contracting it through other means aside from sexual intercourse, sexual activeness and not desiring to contract it. Others who

have the opinion about not being vulnerable to HIV gave the following reasons: cannot contract it through sex but other means because of perception of sexual security or safety and not perceiving HIV as a big deal based on the orientation about it given by a doctor who is a relative.

The perception of PWD to HIV vulnerability varied. A minority (12.1%) of them perceived themselves as vulnerable to HIV while the majority do not perceive themselves as vulnerable to HIV. This variation can be explained by the findings of Umoren & Adejumo which showed that sexual risk behaviour of Youth with disability (YWD) influences their HIV vulnerability perception. YWD that have high sexual risk behaviour reported a higher vulnerability to HIV compared to those with low sexual risk behaviour (Umoren & Adejumo, 2014). It is also similar to the findings that the perception of the vulnerability of deaf youth to sexual and reproductive health problems was based on their sexual socialization and not on their physical disability (Rusinga, 2012).

The pattern of vulnerability perception to HIV that existed among youths with disability from previous studies also existed among PWD that included the youth and adult population. A study in Cameroon showed that persons with physical disability perceived themselves as vulnerable to HIV and that those who have this perception may use a condom more than those without the perception, to prevent STIs (Tarkang, Adam, & Kweku, 2015).

This finding of low perception of vulnerability to HIV among PWD is similar to what was experienced among persons without disability in Nigeria as it was reported in a study that they had a low perception of vulnerability to HIV, the majority (50%) had a negative HIV vulnerability perception while a few (1.6%) perceived themselves as having a high risk to HIV (Fagbamigbe, Lawal, & Idemudia, 2017). It is also similar to the findings among young persons in a Spanish university in which the majority of them also perceived themselves as not vulnerable to HIV (Pastor & Rojas-Murcia, 2019). It was deduced from the recommendation of a study in Nigeria that the risk perception of HIV among PWD was low as the study recommended a behaviour change model that will increase the risk perception of HIV among PWD (ENR, 2015). This implied that the perception of PWD in Oyo state, Nigeria to HIV vulnerability is not different from the perception of persons without disability in Nigeria and beyond.

The majority of PWD in Oyo state perceive that they are not vulnerable to sexual risks, yet a minority perceive vulnerability to sexual risk. Those who perceived themselves as not

vulnerable to sexual risk gave the following reasons: being married, not going all about, being a man and societal segregation in living with PWD. The minority that perceived vulnerability to sexual risk gave the following reason: sexual attraction to the opposite gender due to exceptionality in gifts and activities.

Persons with disability in Oyo state had a varying perception of sexual health vulnerability across all the measures of sexual health vulnerability which included rape, unwanted pregnancy, STI, HIV/AIDS and sexual risks. Some perceived themselves to have sexual health vulnerabilities while some did not perceive themselves to have sexual health vulnerabilities. This agrees with the study that showed that perception of vulnerability among PWD vary as some persons with learning difficulty do not perceive themselves as vulnerable and do not even want to be associated with the term "vulnerable" while other disability like down syndrome was perceived as vulnerable. It was perceived by a person with a learning difficulty that anybody either with a disability or not could be vulnerable to sexual violence but many of them have awareness of vulnerability to sexual violence. It further argued that sexual vulnerability is not innate characteristic but comes from a given social situation (Hollomotz, 2011).

The third specific objective was to describe the gender dimension of sexual behaviour among PWD in Oyo state. The distribution of sexual behaviour (i.e. the number of sexual partners and contraceptive use did not show much disparities by gender. Male and female PWD had an almost similar pattern of sexual behaviour. However, gender did not significantly relate to sexual behaviour at a p-value<0.05. It was found that Males without any sexual partner were 55.3 and females in this category were 58.2%, Males that had one sexual partner were 38.1% while females in this category were 38.1% and males that had 2+ (multiple) sexual partners were 6.5% while females in this category were 3.7%.

Moreover, it was observed that more females than males did not have sexual partners, males and females have thesame proportion concerning single partnership and males have more multiple sexual partners than females. The report that males have more multiple sexual partners than females agreed with the ENR findings which stated that males practiced multiple sexual partnerships than females (ENR, 2015). Males who did not use contraceptives were 66% while females in this category were 67.7% and males who used contraceptives were 34% while females in this category were 32.3%. It was observed that males used contraceptives than females, even though the difference was minimal (1.7%).

Gender did not have a significant relationship with number of sexual partners (Chi^2 1.670, p-value 0.434) and contraceptive use (Chi^2 = 0.128; p-value= 0.721) among persons with disability in Oyo state. These findings of no relationship between gender and sexual behaviour contradicted the study that showed women and men with limiting disabilities were less likely to report having sexual partners when compared with those without limiting disabilities (Holdsworth, Trifonova, Tanton, Kuper, Datta, & Macdowall, 2018).

Despite that Holdsworth et al. 2018 study established a significant influence between gender and sexual behaviour, yet it still related in a way to the findings of this study as it showed a similar pattern of sexual partnership among males and females with limiting disabilities as they were both not likely to report having sexual partners. This is similar to the result from this study that showed that males and females with a disability had very close distribution in the number of sexual partners and in the contraceptive use reported. However, this study is different from Holdsworth et al. 2018 study in that this study's population were only PWD and did not compare PWD with those without disability. This could account for the differences in the findings.

However, in the IDI report, several gender dimensions to sexual behaviour were reported. The statement made by the men depicted a traditional attitude of the men towards contraceptive use, being the decision makers concerning issues of contraceptive use in the home. Most of the men expressed some level of self efficacy or self confidence in being married. They expressed some level of trust in their partners. The traditional attitude of male dominance displayed in their response agreed with Connell's perspective that the gender ideology of masculinity that is predominant in a society, either dominance and violence or equal personal relationships influence young men or young women's health (Connell, 2012).

The self efficacy that these men displayed agreed with the protection motivation theory which opined that the perception of response and self-efficacy has the likelihood of influencing adaptive responses (Norman, Boer, & Seydel, 2005). They also saw marriage as a protection against contracting sexually transmitted diseases including HIV/AIDS. This agreed with the protection motivation theory which opined that the perception of human vulnerability to or severity of threat has the likelihood of influencing maladaptive response (Norman, Boer, & Seydel, 2005)

In all, the attitude of confidence as a married man was generally displayed as what affected the decision to not use contraceptive among men. Similar attitude towards contraceptives was

also reflected among the women as a woman had an attitude of so much confidence in her reproductive system and another depicted an attitude of disinterest. The intention of having more children also affected a man's non-use of contraceptive. These all agreed with the theory of reasoned action that opined that behaviour is influenced by volitional factors which include attitude, subjective norms and intentions (Conner and Sparks, 2005)

Most of the persons with disability, both male and female reported using contraceptives with the intention of preventing unwanted pregnancy, STI or HIV. This agreed with the theory of reasoned action that opined that behaviour is influenced by volitional factors which include attitude, subjective norms and intentions (Conner and Sparks, 2005). Even though both gender reported experiencing opposition against their wish in the use of contraceptive, the dimension from which it was experienced differed by gender. The male respondent said he was forced to use contraceptive against his will but conceded to his partner while the female respondent said it was difficult to convince her partner to allow her to use contraceptives. These two experiences revealed some form of male dominance in the decision of contraceptive usage as there was need for some level of force or cajoling and intervention from a significant other, in the person of his father-in-law. This agreed with the findings that the gender ideology of masculinity that is predominant in a society, either dominance and violence or equal personal relationships influence young men or young women's health (Connell, 2012)

Among PWD that used contraceptives, there was no gender specific difference in the number of usage as to whether men use more than women even in the reasons for usage as both male and females alike had protection against STI and prevention of pregnancy in mind as reasons for using contraceptive. However, the differences in gender concerning usage of contraceptive occurred in the type of contraceptives used. Women use other types of modern contraceptives aside condom as a woman cited "copper T" as the contraceptive she used, but men use majorly condom as a man cited "condom". None of the men interviewed cited sterilization as type of contraceptive used. This in a way revealed the reason why previous studies utilized condom as a measure of contraceptive when their study involved both male and female such as ENR, 2015; (Aderemi, Pillay, & Esterhuizen, 2013) (Tarkang, Adam, & Kweku, 2015). but used contraceptives when their study population involved females only.

However, this study's consistency in the usage of contraceptive among men and women without deviating to women only and still reported the gender dimensions of both men and

women alike agreed with the opinion of Connell 2012 that argued that both feminism and masculinity should be discussed together and not alone. It reported that most studies, programs and policies that have attempted to discuss the issue around gender and health intended to address both the needs of men and women collectively but along the way digressed to focus on women alone, excluding men. (Connell, 2012).

This study was an improvement over a study that combined both men and women in their study on sexual behaviour and sexual health outcomes but had no report for men's sexual behaviour (Holdsworth, Trifonova, Tanton, Kuper, Datta, & Macdowall, 2018). The perspective expressed by a male with disability that he had to consider the opinion of his wife in the use of contraceptives which necessitated their decision of inconsistencies in its usage and the experience of difficulty a woman reported with convincing her husband to accept the usage of copper T agreed with the perspective of Connell which stated that the gender ideology of masculinity that is predominant in a society, either dominance and violence or equal personal relationships influence young men or young women's health (Connell, 2012).

Gender differences were shown in the number of sexual partners that PWD had in the study particularly with respect to having multiple sexual partners. From the report of the men and women with disability on multiple sexual partners it seemed it was so easy for men with disability to get more than one sexual partner despite their disabilities but difficult for the women. It also showed some form of gender vulnerability on the part of women but showed masculine trait of getting away with any act without being questioned on the part of men in their sexual relationship with their partners. This was shown as a woman reported being neglected by her partner and another reported the likelihood of her partner having multiple sexual partners but still was faithful to the partner. The men boldly justified their need for the practice of multiple sexual partnerships as majority stated the need for sexual satisfaction from another partner when a partner refused to satisfy their sexual desire.

These findings of vulnerabilities on the part of the woman and masculinity on the part of the men was similar to the report of Connell that the gender ideology of masculinity that is predominant in a society, either dominance and violence or equal personal relationships influence young men or young women's health (Connell, 2012). The sexual relationship pattern between male and female in this study was not equal, males had more choices than women in sexual partners' relationships.

The fourth specific objective was to examine the influence of vulnerability perception on the number of sexual partners among PWD in Oyo State. At the bivariate level of analysis, social, sexual health, rape, unwanted pregnancy, STI and HIV vulnerability perceptions had a significant relationship with the number of sexual partners at a p-value < 0.05. Education, culture, religion, income, occupation, residence, physical, rape source and unwanted pregnancy source vulnerability perceptions did not significantly relate to the number of sexual partners at a p-value < 0.05. At the multivariate level of analysis without controlling for socio-demographic variables, social, sexual health, rape, and unwanted pregnancy vulnerability perceptions significantly influenced the number of sexual partners at a p-value< 0.05. After controlling for socio-demographic variables, no education, mobility disability, 6-10 months migrants, > 10 months migrants, rape vulnerability perception and unwanted pregnancy vulnerability perception significantly influenced number of sexual partners at p-value < 0.05.

PWD who perceived that they are not vulnerable to rape were more likely than those who perceived themselves as vulnerable to rape to have one sexual partner as against having multiple sexual partners. PWD who perceived that they are vulnerable to unwanted pregnancy were more likely than those who do not perceive themselves as vulnerable to unwanted pregnancy to have no sexual partner as against having multiple sexual partners.

The results achieved in this study for the fourth objective showed that sexual health (which included rape and unwanted pregnancy) vulnerabilities perceptions were the factors that influenced sexual behaviour (i.e. number of sexual partners). This is similar in some aspects to the findings that showed that sexual socialization and not physical disabilities determine sexual behaviour (Rusinga, 2012), that sexual vulnerabilities is not an innate characteristic but comes from a given social situation (Hollomotz, 2011) and that sexual health vulnerability perception could influence the sexual behaviour of condom use among PWD (Tarkang, Adam, & Kweku, 2015).

This finding also indicated that the perception that PWD have about their vulnerabilities socially, to rape and unwanted pregnancy significantly influenced their sexual partnership behaviour. Those who perceived themselves to be socially vulnerable and those who perceived themselves to have sexual health vulnerability tended towards protecting themselves from having multiple sexual partners rather they have one sexual partner compared to those who did not perceive themselves to be socially vulnerable or vulnerable to

sexual health. Those who perceived themselves as vulnerable to rape already perceive themselves as exposed to risk and therefore are more likely to practice risky sexual behaviour and are more likely to have more than one sexual partner unlike those who did not perceive themselves as vulnerable to rape who were more likely to have one sexual partner. Those who perceive themselves as vulnerable to unwanted pregnancy are more likely to have no sexual partner as a protective measure against unwanted pregnancy than those without such vulnerability. These agreed with the position of protection motivation theory that vulnerability perception and the severity of threat could hinder maladaptive responses among humans (Norman, Boer, & Seydel, 2005)

The study showed that the vulnerability perception that PWD had prevented them from engaging in the RSB of having multiple sexual partners. This implied that vulnerability perception positively and significantly influenced safe sexual behaviour among PWD in Oyo state. Those who perceived themselves to have sexual health vulnerability and rape prevented themselves from having multiple sexual partners when compared to those without sexual health or rape vulnerability perception; and those who perceived themselves as being vulnerable to unwanted pregnancy in comparison to those who did not perceive themselves as vulnerable to unwanted pregnancy preferred not to have any sexual partner as against having many.

These findings agreed with the protection motivation theory that established a positive relationship between perception of vulnerability and human behaviour in that vulnerability perception and the severity of threat could hinder maladaptive responses (Norman, Boer, & Seydel, 2005). This finding is different from the explanation given by a study that sexual and social vulnerabilities could be the likely factors that explained the practice of multiple partnerships among the deaf. The study explained that the tendency for the deaf to self-validate their sexual attraction ability through the act of seduction or an attempt to overcome their marginalization or inferiority complex are the likely factors that could explain their high multiple concurrent partnerships (Touko, Mboua, Tohmu, & Perrot, 2010).

The fifth objective was to investigate the influence of vulnerability perception on contraceptive use among PWD in Oyo State. At the bivariate level of analysis, social, sexual health, rape, rape source, unwanted pregnancy, unwanted pregnancy source, and STI vulnerability perceptions had a significant relationship with contraceptive use at a p-value < 0.05. Education, culture, religion, income, occupation, residence, physical, and HIV

vulnerability perceptions did not significantly relate to contraceptive use at a p-value < 0.05. At the multivariate level of analysis before controlling for socio-demographic characteristics, only social vulnerability perception significantly influenced contraceptive use among PWD in Oyo State at a p-value < 0.05.

This finding showed that PWD in this study engaged in preventive behaviour of contraceptive use which was being influenced by their social vulnerability perception. This agreed with the protection motivation theory that established a positive relationship between the perception of vulnerability and human behaviour (Norman, Boer, & Seydel, 2005). This result that showed that vulnerability perception to HIV/AIDS did not significantly influence contraceptive use among PWD in Oyo state negates the findings that perceived vulnerability to HIV/AIDs among PWD could influence condom use (Tarkang, Adam, & Kweku, 2015), which is a major type of contraceptive. This could be because contraceptives not condoms were used as the variable of study.

However, after controlling for socio-demographic characteristics, Ibadan North LGA, age group 15-17 years, catholic religion, practicing other religion, age at sexual debut of 40-49 years, wife/husband rape perpetrator vulnerability perception, friends rape perpetrator vulnerability perception, older person rape perpetrator vulnerability perception, relatives unwanted pregnancy perpetrator vulnerability perception significantly influenced contraceptive use at p-value < 0.05.

Rape perpetrator vulnerability perception and unwanted pregnancy perpetrator vulnerability perception were the two vulnerability perception variables that significantly influenced contraceptive use at p-value<0.05. PWD who perceived themselves as vulnerable to being raped by their husbands/wife, friends and older persons were less likely to use contraceptive. These people seemed to have some level of protectiveness which may be dangerous. This findings is further explained by the qualitative finding that marriage was referred to as a reason for not using contraceptive. Being in marriage seems to be a sexual protection for PWD, therefore, even if they perceived their husband or wives as a perpetrator of rape to them, they would still not protect themselves by using contraceptive. This also agrees with protection motivation theory that fear calls make people to put up protective behaviour (Norman, Boer, & Seydel, 2005). However in this situation, respondents do not perceive fear in their marital partners, thus, they are not protecting themselves by using contraceptive

PWD that perceived themselves as vulnerable to having unwanted pregnancies through relatives had a higher likelihood of using contraceptives. This agrees with the protection motivation theory that posits that vulnerability perception and the severity of threat could hinder maladaptive responses among humans (Norman, Boer, & Seydel, 2005)

The sixth objective was to document the consequences of sexual behaviour among PWD in Oyo State. Table 4.11 showed the consequences of sexual behaviour as reported from the quantitative data analysis which included abortion (0.2%), depression (0.2%), child bearing (0.7%), separation (0.2%), STD (0.2%), Education (0.2%) and Pregnancy (0.2%). Others reported they don't know any consequence (0.7%) but the majority reported that they don't have any consequence (97%). This agrees with the findings from Haruna 2017 that the effect of stigmatizations and exclusion of PWD in the society can include self-harm, low self-esteem, inability to relate well in the society, isolation and depression (Haruna, 2017).

The report from the IDI showed that some PWD reported not having any consequence of sexual behaviour; some reported no negative consequence of sexual behaviour while some reported having consequences of sexual behaviour. Those who reported having consequences of sexual behaviour reported both positive and negative ones which include the following: majority reported giving birth to a new child or childbearing, others reported social something to keep relationship with your spouse, unplanned child (which must have resulted from unwanted pregnancy), serious fight from an admirer, contraction of STI, sexual intercourse with one wife makes one's body okay (bodily satisfaction), single parenting and child-caring due to partner's neglect or separation.

Some of the reported consequences of sexual behaviour among PWD such as unplanned childbearing, serious fight with an admirer (or quarrel), and contracting STI (which includes HIV) are similar to the findings of Babalola, Nwokocha, & Adewole in 2021 that showed that young PWD perceived that madness or quarrel could be the outcome of multiple sexual partnerships and RSB could lead to having an unwanted pregnancy, contracting HIV and being charmed (Babalola, Nwokocha, & Adewole, 2021). It also agrees with the study that explained that young PWD are more exposed to ill-sex including: prostitution, pornography, sexual violence, unintended pregnancies and sexually transmitted diseases (STDs) than those without disability which is a consequence of poorer sexual knowledge and education among young PWD when compared to those without disability that results from public oppression and non-visibility of PWD sexual life (Shah, 2017).

Conclusion

In conclusion, this study revealed the relationship between vulnerability perception and sexual behaviour in Oyo State, Nigeria. It had highlighted the sexual behaviour of PWD by revealing that they are sexually active, not asexual and that majority of them perceived themselves as vulnerable, either socially or in the aspect of sexual health. It has also revealed a positive significant relationship between vulnerability perception and sexual behaviour. It showed that the perception that PWD have about their vulnerability would influence their pattern of sexual behaviour, either regarding their sexual partnership or contraceptive use behaviour.

Recommendations

The recommendations of this study are given based on the results obtained in this study. These recommendations are given for policy makers, programmers and researchers to take necessary actions.

Recommendations for policies and programs: This study has provided a basis on which research based policies can be made among PWD on their vulnerability perception and sexual behaviour. It has the following policy implications:

- Socio-demographic factors that influenced sexual behaviour should be properly moderated through governmental and international policy drafts and programs to enhance safe sexual behaviour (i.e. the number of sexual partners and contraceptive use) among PWD.
- The low CU behaviour among PWD should be stopped and increased CU bahaviour should be promoted by policy decisions and programs to prevent risky sexual outcomes
- The sexual behaviour of having a single sexual partners and trust among sexual partners which is more predominant among married partners and sexual restraint among those without partners should be maintained among PWD through policies and programs to prevent risky sexual outcomes.
- Policies and programs should be targeted at moderating the perceptions of rape and unwanted pregnancy vulnerabilities of PWD that influenced number of sexual partners among them through non-governmental organizations sensitization programmes so as to reduce risky sexual behaviour among them.

- Policies and programmes should also be targeted at moderating rape perpetrators VP (which include husband or wife, friends and older persons) and unwanted pregnancy perpetrators VP (i.e relatives) through non-governmental organizations sensitization programmes in order to improve contraceptive use among PWD.
- Policies and programs should be targeted at preventing, avoiding and reducing the consequences of sexual behaviour among PWD in Nigeria.
- Policies and programs should be targeted at increasing the knowledge of family planning methods among PWD to increase their awareness about the different available methods of contraceptives and also increase the level of contraceptive use among them.
- Gender differences in sexual behaviour i.e.. number of sexual partners and contraceptive use among PWD should be closed through policies and programs by ensuring that the sexual needs of both men and women as identified in this study are met in order to improve their sexual behaviour.

Recommendations for further studies:

This study therefore recommends the following for the consideration of future researchers.

- A cohort study can be done by future researchers to understand some time-bound effects
- A more representative sampling technique such as systematic sampling can be adopted for future research which may be done on a fewer number of participants to overcome the particular difficulty in reaching and getting sufficient study participants due to their heterogeneity.
- The study can be extended by researchers to include more categories of disability at an almost equal proportion of participation in the study.
- A larger study that will represent the whole population of PWD in Nigeria can be done in the future.

Contributions to Knowledge

This study has added the following to the body of knowledge.

- This study revealed a protective sexual behaviour pattern among PWD as it revealed that rape vulnerability perception (VP) influenced protective behaviour of not having multiple sexual partners among PWD and unwanted pregnancy perpetrator VP also

influenced using higher contraceptive among them. These agreed with the PMT which posited that the perception of human vulnerability to or severity of threat has the likelihood of influencing behaviour (i.e. maladaptive response) and the perception of response and self-efficacy has the likelihood of influencing adaptive responses (Norman, Boer, & Seydel, 2005)

- This study established a bi-directional influence between vulnerability perception and sexual behaviour. While past studies clearly stated that sexual behaviour influenced vulnerability perception, this study discovered that vulnerability perception influenced sexual behaviour among PWD. This agreed with the PMT which posited that the perception of human vulnerability to or severity of threat has the likelihood of influencing behaviour (i.e. maladaptive response) and the perception of response and self-efficacy has the likelihood of influencing adaptive responses (Norman, Boer, & Seydel, 2005)
- This study re-ascertained sexual activeness among PWD as against the belief that they are asexual. It confirmed their sexual involvement through its result that many of them had at least one sexual partner and even some had more than one sexual partner.
- This study clearly revealed the missing gap in knowledge about the actual consequences of sexual behaviour among PWD. While previous studies either omitted CSB or revealed the perceived consequences, this study revealed the actual CSB among PWD.
- This study expanded the indicators of sexual health vulnerability perception in relationship to sexual behaviour beyond the over-researched but limited HIV/AIDS among PWD to include STI, rape and unwanted pregnancy. It measured more than HIV/AIDS as an indicator for sexual health vulnerability perception in relationship to sexual behaviour. While previous studies concentrated on examining the relationship between HIV/AIDS vulnerability perception and sexual behaviour among PWD, this study included STI, rape and unwanted pregnancy vulnerability perception. It ascertained that rape and unwanted pregnancy vulnerability perception significantly influenced number of sexual partners among PWD, which influenced the prevention of RSB of engaging in multiple sexual partnership among them.
- This study revealed a mixed gender dimension to sexual behaviour (i.e. contraceptive use and number of sexual partners) among PWD in Nigeria without bias towards a specific gender. While previous studies have been mostly biased towards the female,

this study successfully examined the perspectives of both gender as it relates with sexual behaviour among PWD.

- This study improved the coverage of its dependent variable beyond condom use that had been prevalent in previous studies by using contraceptives instead of condom. While previous studies concentrated on condom use alone and had a bias towards women and girls, this study combined both gender and used contraceptives as a dependent variable. It revealed that contraceptive use among male and female PWD was low but males used it more than females.
- This study established that both young and old PWD are involved in RSB as against previous findings that established RSB among adolescents and youths with disabilities, leaving out sufficient knowledge about the engagement of the older PWD in RSB. This study therefore revealed that older PWD also engage in RSB, as the study sample included both the young and adult PWD.
- This study provided an innovative methodological approach into measuring vulnerability perception and sexual behaviour by going beyond using the manual content analysis which was common in previous studies to using the query-word tree content analysis in Nvivo software. This method provided a pictorial representation of the responses of the in-depth interviewees. This is a methodological input that improved this study over previous ones.

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