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Original Research Article

Effect of COVID-19 lockdown on reproductive activity in Rivers state

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ABSTRACT

Background: Reproductive activity is an important biological process that always take place between married and unmarried couples across the globe. The study was carried out to evaluate the effect of COVID-19 on reproductive activity during and post-lockdown in Rivers state. The aim of the study was to evaluate the effect of COVID-19 on reproductive activity during and post-lockdown in Rivers state.

Methods: A well-structured questionnaire containing demographics and effect of COVID-19 on reproductive activity were administered to participants. Each participant had one questionnaire to fill appropriately and independently after instructions were given to them by the researchers.

Results: The study revealed that 57.58% (57/99) of the participants were between the ages 16-20, 58.82% (60/102) were single and 99.03% (102/103) of the participants (women) have unprotected sexual intercourse during COVID-19 lockdown. 99.03% (102/103) the participants engaged in unprotected sex because the pharmacist's stores were closed. The study also shows that 43.69% (103) have the urge for sex due to inactivity and 76.60% (102) of the participants got pregnant and 96.25% (77/80) of the pregnancy were not planned. 51.29% (41/80) of the participants aborted the pregnancy and 92.68% (38/41) Of the women who got pregnant did not attend antenatal clinic.

Conclusions: A total number of 103 respondents participated in the research. 76.6% of the population got pregnant during the lockdown for different reasons and most of the participants were singles and did not plan for the pregnancy.

Keywords: Effect, COVID-19, Reproductive activity, Lockdown

INTRODUCTION

Reproduction is an important aspect of African culture with the aim to maintain continuity in the family circle.² Reproductive activity is an act carried out by men and women who have attained pubertal age to obtain pleasure when pregnancy is not plan or desire and this may or may

not result to pregnancy or sexually transmitted disease in the absent of a protective device. So many people carried out reproductive activity extramaritally without the use of protective device.

Coronavirus is a genus of the coronaviridae family, that may cause infection in animals or humans.^{10,11} Severe

acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is one of the six types of viruses from the coronaviridae's family responsible for the Coronavirus disease 2019, and is commonly known as COVID-19.¹ COVID-19 as the name implies, was discovered in the last quarter of 2019 in the city of China called Wuhan.

The main form of transmission of the virus is from person to person through droplets derived from sneezing and coughing.⁸ The gold standard use for diagnosis is the real-time reverse transcription polymerase chain reaction (RT-PCR) of samples collected by nasopharyngeal and oropharyngeal swab.⁵ However, the virus has been isolated in saliva, conjunctiva, urine, and faeces from infected patients.^{4,7,15} Symptoms of COVID-19 include: difficulty in breathing, cough, chest pain, sore throat, fever, anosmia, and other respiratory symptoms.

Elderly people and those with co-morbidities such as diabetes, heart problems, and hypertension are more susceptible to develop the disease.¹³ Some preventive measures are physical distancing, wearing face mask, regular washing of hands under running water with soap, use of hand sanitizer and restriction of movement. COVID-19 was announced as pandemic by the WHO.¹³ To reduce transmission, travel restrictions have been announced and enforced around the world, and most cities have been quarantined.⁹

METHODS

Study type

This was a cross-sectional study (descriptive study) involving 103 females.

Study place

The study place was households in Rivers state, South-South, Nigeria. The study lasted for a period of six weeks, from February 2021 to March 2021.

Selection criteria

Inclusion criteria were those that were between 16 years to 40 years and exclusion criteria were those less than 16 years of age and above 40 years of age.

A well-structured questionnaire containing demographics and effect of COVID-19 on reproductive activity were administered to participants. Each participant had one questionnaire to fill appropriately and independently after instructions were given to them by the researchers. The age of the participants was between 16 and 40 years.

Ethical approval

There was no ethical approval because the study was conducted in an open area during the lockdown and every government office was under lock and key.

Statistical analysis

Data was done using Microsoft excel. P value < 0.05 was considered significant for data.

RESULTS

The participants ages were 16-20 years, 57.58% (57/99); 21-25 years, 28.28% (28/99); 26-30 years, 8.09%, (8/99) (Table 1) and 31-35 years, 6.06% (6/99). 58.82% (60/102) were singles, 31.37% (32/102) married, 4.90% (5/102) divorced, 3.92% (4/102) cohabiting and 0.98% (1/102) widow (Table 2) respectively. Also, 46.08% (47/102) of the participants were students, 35.29% (36/102) were traders, 16.67% (17/102) were civil servants and 1.98% (2/102) were farmers (Table 3).

49.02% (50/102) of the respondents were in secondary school, 50% (51/102) in tertiary institution and 0.98% (1/102) in primary school (Table 4). 99.03% (102/103) of the respondents engaged in unprotected sex during the lockdown and 0.97% (1/103) do not and 99.03% (102/103) engaged in unprotected sex due to closure of pharmacist's store (Table 5). 43.69% (45/103) of the respondents engaged in sexual activity due to inactivity, 22.33% (23/103) due to idleness, 22.33% (23/103) due to lack of finance and 11.65% (12/103) due to lockdown at home (Figure 1). Among the participants, 76.60% (80/102) were pregnant and 23.40% (22/102) were not pregnant (Table 6).

The study revealed that 96.25% (77/80) of the respondents did not plan for the pregnancy while 3.75% (3/80) actually planned the pregnancy (Table 7). 51.25% (41/80) of the respondents aborted the pregnancy and 48.75% (39/80) maintained the pregnancy (Figure 2). 12% (6/50) of the participants had complications from abortion and 88% (44/50) of the participants did not (Table 8). 92.68% (38/41) of the participants did not attend antenatal while 7.32% (3/41) of the participants attended antenatal (Table 9).

Table 1: Demography.

Age (years)	N	Percentage (%)
16-20	57	57.58
21-25	28	28.28
26-30	8	8.09
31-35	6	6.06
36-40	0	0

Table 2: Marital status.

Marital status	N	Percentage (%)
Single	60	58.82
Married	32	31.37
Divorced	5	4.90
Cohabiting	4	3.92
Widow	1	0.98

Table 3: Occupation.

Occupation	N	Percentage (%)
Student	47	46.08
Farming	2	1.96
Trading	36	35.29
Civil servant	17	16.67

Table 4: Educational status.

Educational status	N	Percentage (%)
Formal	0	0
Primary	1	0.98
Secondary	50	49.02
Tertiary	51	50

Table 5: Respondents who had unprotected sex.

Responses	N	Percentage (%)
Yes	102	99.03
No	1	0.97

Table 6: Respondents who were pregnant during the lockdown.

Responses	N	Percentage (%)
Yes	80	76.60
No	22	23.40

Table 7: Respondents who did not plan for pregnancy.

Responses	N	Percentage (%)
Yes	3	3.75
No	77	96.25

Table 8: Respondents who had complications from aborted pregnancy.

Responses	N	Percentage (%)
Yes	6	12
No	44	88

Table 9: Respondents who attended antenatal during pregnancy.

Responses	N	Percentage (%)
Yes	3	7.32
No	38	92.68

Table 10: Representation of the reproductive activity during lockdown based on age groups.

Age groups (years)	Total no. of respondents in each class group	No. of respondents who got pregnant in lockdown (%)	P value (<0.05)	No. of respondents who did not get pregnant in lockdown (%)	P value (<0.05)
16-20	24	12 (50)	<0.009	12 (50.0)	<0.003
21-25	25	20(80)		5 (20.0)	
26-30	37	34(92.2)		3 (8.2)	
31-35	16	14(87.5)		2 (12.5)	
36-40	0	0		0	
		Mean=26.1		Mean=21.8	

Table 11: Reasons why pregnancy was not planned.

Reasons	N	Percentage (%)
Hardship	14	18.18
Restriction	18	23.38
No access to health facility	33	42.86
Shortage of food	12	15.58

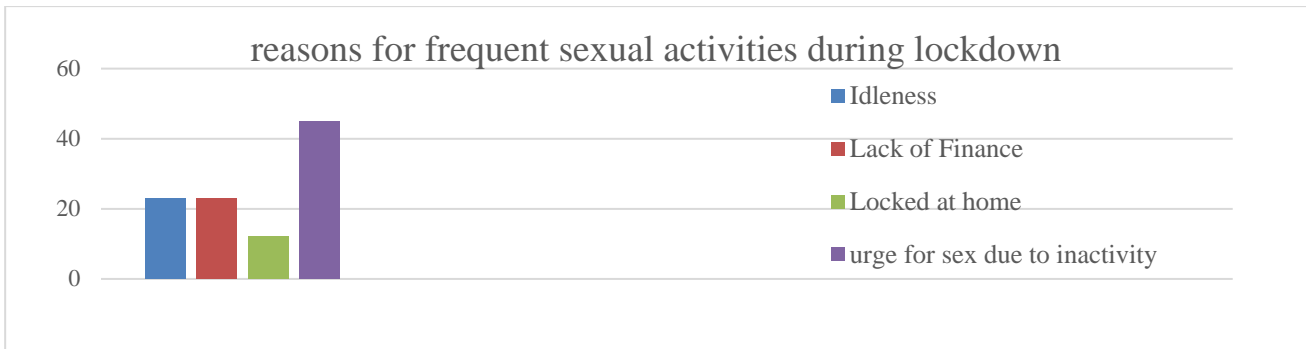


Figure 1: Reasons for frequent sexual during lockdown.

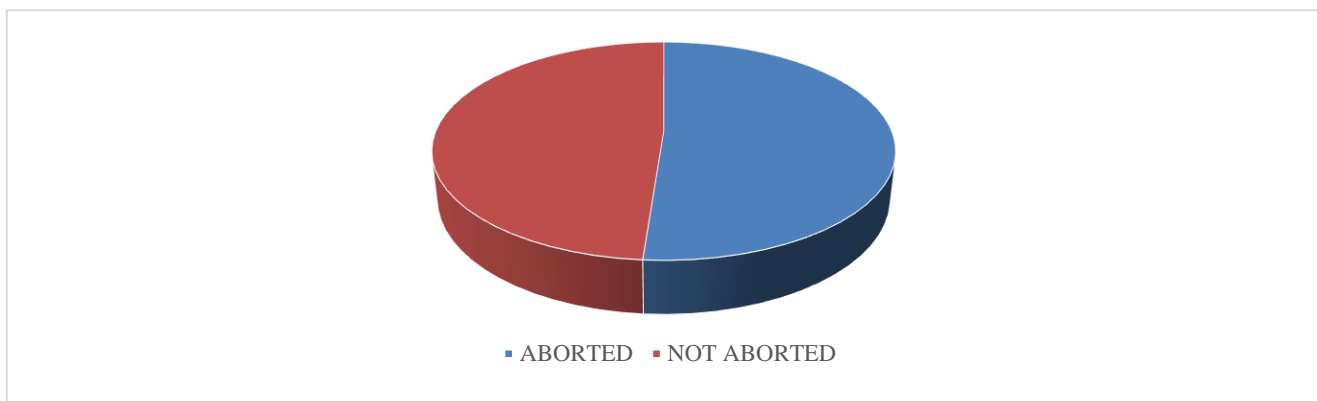


Figure 2: Representations of aborted pregnancies during the lockdown.

DISCUSSION

Reproductive activity is an act carried out by men and women who have attained pubertal age to obtain pleasure when pregnancy is not plan or desire and this may or may not result to pregnancy or sexually transmitted disease in the absent of a protective device. Unprotected sexual intercourse is sex that occur between a man and a woman who have attained pubertal age without the use of any one of the family planning methods. Sex is pleasurable and must be control to avoid embarrassment mostly among unmarried couples. If sex is not control it could result to unwanted pregnancy and other sexually transmitted infections and this can also lead to school dropout, frustration, isolation and depression. During COVID-19 lockdown and post COVID-19 lockdown, sexual activities were on the increase due to factors such as loneliness, lack of finance, hunger and overcrowding around the neighbourhood and because these factors were present, the participants (women) were prone to have sex in order to

take care of themselves and also keep themselves busy. COVID-19 pandemic fractured several sectors such as agriculture, economy, pollical, education social events across the globe. During the pandemic, almost all the sectors were shut down and people were home without participating in any activity.

Effects of COVID-19 on reproductive activity appears to be commoner among students who were idle and restricted. The study revealed that 46.08% of the participants were students, 35.29% were traders, 16.67% were civil servants and 1.96% were farmers (Table 3). Among the participants, 99.03% of them had unprotected sexual intercourse during the lockdown and this is an unsafe pattern of sex among unmarried couples and married couples who has not plan or desired to have children (Table 5). 99.03% of the participants who engaged in unprotected sex did it because there was no place to purchase family planning devices such as condoms, oral contraceptives and others. The pharmacist’s

store was closed preventing the participants from getting access to the devices. This study is similar to studies by^{1,6} which revealed that there were declined in the utilization of family planning, antenatal care and institutional deliveries during the Ebola outbreak in 2014-2015. Among the participants, several reasons such as idleness, lack of finance, locked at home and urge to sex due to inactivity were responsible for frequent sexual activities during the lockdown (Fig 1). However, urge due to inactivity tend to be the most reason for the frequent unprotected sex during the outbreak and this is because people were home doing nothing and this could result to unexpected visit from friends.

However, 76.60% of the participants got pregnant for different reasons and 23.40% did not get pregnant during the COVID-19 lockdown and this increased in percentage of those that got pregnant could be due to lack of protective devices as result of restriction of movement, closure of medical stores or scarcity of those protective devices. During the period, pharmacist's stores were closed, no access to medical supplies resulting to most of the participants engaging in unprotected sex leading to pregnancy. The mean of those who got pregnant is 26.1 while that of those who did not get pregnant is 21.8 (Table 10). 96.25% of the participants actually did not plan for the pregnancy due to hardship (18.18%), restriction (23.38%), no access to health facility (42.86%) and shortage of food (15.58%) (Table 11). The study shows that 51.25% of the participants who got pregnant aborted the pregnancy and 48.75% did not abort the pregnancy (Figure 2). Meanwhile, 92.68% of the participants who did not abort the pregnancy, did not attend antenatal clinic (Table 9). This may due to restriction of movement during the lockdown. Access to healthcare facility were hindered during the COVID-19 lockdown and this affected many pregnant women. During this period expectant mothers were not able to access healthcare facility due to restrictions of movement, transportation and healthcare providers were also restricted due to lack of transportation vehicles that normally convey them to their various centres. This study agreed with study by WHO, 2018, who revealed that persons with health problems unrelated to the epidemic find it harder to get access to health care services.

Number of participants who got pregnant during the lockdown were between the ages: 16-20 years and were 15% (12), and the least among the age class and probably at that age, they were still tender and 42.5% (34) of the respondents who got pregnant were between the age 26-30 years and this was the highest (Table 1). This could be that the respondents were actually looking for an avenue to get someone that they may settle with and plan their future. However, their plan may not be perfect as expected due to the effect of the COVID-19 pandemic. 17.5% (14) of the respondents in age class between 31-35 years got pregnant and this was less than age class between 26-30 years. This low percentage of this group may due to the fact that, they were matured enough to handle situations when it comes to sexual activity and to avoid embarrassment. In the age

class between 21-25 years 25% (20) of the respondents got pregnant during the lockdown (Table 10).

Again, 58.82% of the participants were singles (Table 2), probably because most of them were students and this could be the reason while most of the participants who got pregnant did not plan for the pregnancy and they went further to aborts the pregnancy. COVID-19 pandemic that brought about lockdown have caused havoc to our future workforce because most the participants were students who engaged in unprotected sex and this is responsible to the unwanted pregnancy they got. Most of them may drop-out of school due to social stigmatization, lack of family support, finance, psychological factors like isolation and depression.

Limitations

The following were limitations of the study, they were restriction of movement, fear of contacting the virus, and lack of fund.

CONCLUSION

A total number of 103 respondents participated in the research. 76.6% of the population got pregnant during the lockdown for different reasons and most of the participants were singles and did not plan for the pregnancy which resulted to abortion by the participants and this may cause most of the participants to drop-out of school due to psychological factors, lack of finance and lack of family support.

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Ethical approval: Not required

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